

QUESTION BANK

MBA

SEMESTER 2

Vol. II

FOR PRIVATE CIRCULATION

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QUESTION BANK

BUSINESS RESEARCH

MS 108

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BUSINESS RESEARCH – MS 108
MBA II

UNIT - I

I Test Your Skills:

(a) Multiple Choice Questions:

- 1 Most qualitative research money goes into...
 - (a) Depths
 - (b) Group Discussions
 - (c) Delphi
 - (d) Ethnography

- 2 Which of these quantitative methods is favored in Europe?
 - (a) Telephone
 - (b) Postal
 - (c) Face to Face
 - (d) Online

- 3 What is data "which relates to a living individual who can be identified from the data, or from the data and other information in the possession of, or likely to come into the possession of, the data controller"?
 - (a) Impersonal data
 - (b) Personal data
 - (c) Behavioral data
 - (d) Something else

- 4 How many principles are contained in the UK Data Protection Act 1998?
 - (a) Eight
 - (b) Ten
 - (c) Twelve
 - (d) Fourteen

- 5 Which Job matches this description? "Responsible for specific parts of projects, may be part of a team. Will write questionnaires and analyze results. May prepare reports and presentations".
- (a) Spec Writer
 - (b) Research Executive
 - (c) Personal Interviewer
 - (d) Moderator
6. Which ONE of these is a technique useful in project planning?
- (a) SERT
 - (b) SPERT
 - (c) PERT
 - (d) REPT
- 7 Which ONE of these needs to be decided before considering whether to take a census or sample?
- (a) The method
 - (b) The objectives
 - (c) The reporting style
 - (d) The Gantt chart
- 8 Which ONE of these should be used as a starting point for any research project?
- (a) Primary data
 - (b) Secondary data
 - (c) Omnibus data
 - (d) Continuous data
- 9 A systematic search for a supplier includes various steps. Which ONE of the following steps should come before the others?
- (a) Rejecting or accepting a proposal
 - (b) Shortlisting of agencies
 - (c) Creating a brief
 - (d) Receiving proposals
- 10 Why might we have a qualitative stage at the end of a project?
- (a) To generate a sampling frame
 - (b) To investigate issues found in the field
 - (c) To help in questionnaire development
 - (d) To fine-tune the objectives

- 11 Who produces the research brief?
- (a) An informant
 - (b) A research agency
 - (c) A client
 - (d) A respondent
- 12 The brief does NOT contain:
- (a) background
 - (b) objectives
 - (c) reporting details
 - (d) fees
- 13 The depth interview is the same as a:
- (a) Delphi interview
 - (b) quantitative interview
 - (c) focused interview
 - (d) semiotic study
- 14 Which ONE of the following is generally considered to be a forecasting method?
- (a) Accompanied shopping
 - (b) Delphi interview
 - (c) Depth interview
 - (d) Focus group
- 15 Semiotics refers to:
- (a) the analysis of signs
 - (b) body language
 - (c) a projective technique
 - (d) syndicated
- 16 Semiotic analysis is criticized for being:
- (a) objective
 - (b) old-fashioned
 - (c) subjective
 - (d) too simple
- 17 Which ONE of the following is least likely to be a client for social researchers?
- (a) Government departments
 - (b) FMCG manufacturers
 - (c) Pressure groups

- (d) Charities
- 18 The objectives for clients of social research are likely to concern:
- (a) making profit
 - (b) increasing profit
 - (c) decreasing profit
 - (d) something other than profit
- 19 Social researchers' interview:
- (a) individuals only
 - (b) organizations only
 - (c) individuals and organizations
 - (d) neither individuals nor organizations
- 20 Which ONE of the following terms is used to describe the situation when respondents assess the prevailing feeling and, as a result, are reluctant to express opinions openly?
- (a) Spiral of silence
 - (b) Hawthorne effect
 - (c) Telescoping
 - (d) Sugging
- 21 Which of the following quantitative research questions is superior?
- (a) "What is the effect of participation in various extracurricular activities on academic performance?"
 - (b) "What effect does playing high school football have on students' overall grade point average during the football season?"
- 22 A statement of the quantitative research question should:
- (a) Extend the statement of purpose by specifying exactly the question(s) the researcher will address
 - (b) Help the research in selecting appropriate participants, research methods, measures, and materials
 - (c) Specify the variables of interest
 - (d) All of the above
- 23 The research participants are described in detail in which section of the research plan?
- (a) Introduction
 - (b) Method
 - (c) Data analysis
 - (d) Discussion

- 24 Research hypotheses are _____.
- (a) Formulated prior to a review of the literature
 - (b) Statements of predicted relationships between variables
 - (c) Stated such that they can be confirmed or refuted
 - (d) b and c
- 25 Hypotheses in qualitative research studies usually _____.
- (a) Are very specific and stated prior to beginning the study
 - (b) Are often generated as the data are collected, interpreted, and analyzed
 - (c) Are never used
 - (d) Are always stated after the research study has been completed
- 26 Why do you need to review the existing literature?
- (a) To make sure you have a long list of references
 - (b) Because without it, you could never reach the required word-count
 - (c) To find out what is already known about your area of interest
 - (d) To help in your general studying
- 27 To read critically means:
- (a) Taking an opposing point of view to the ideas and opinions expressed
 - (b) Skimming through the material because most of it is just padding
 - (c) Evaluating what you read in terms of your own research questions
 - (d) Being negative about something before you read
- 28 Which two of the following are legitimate frameworks for setting out a literature review: 1. constructing inter-textual coherence, 2. Deconstruction of textual coherence, 3. Problematizing the situation, 4. Resolving discovered problems?
- (a) 1 and 2
 - (b) 2 and 3
 - (c) 1 and 3
 - (d) 2 and 4
- 29 A systematic literature review is:
- (a) One which starts in your own library, then goes to on-line databases and, finally, to the internet
 - (b) A replicable, scientific and transparent process
 - (c) One which gives equal attention to the principal contributors to the area
 - (d) A responsible, professional process of time-management for research

- 30 What is a narrative literature review?
- (a) An historically-based review, starting with the earliest contributions to the field
 - (b) A review based exclusively on stories about companies, in book and case-study form
 - (c) A paraphrase style of reviewing which does not require referencing
- 31 Which one of these is likely to be peer-reviewed?
- (a) The Guardian.
 - (b) The European Journal of Management.
 - (c) Woman's Own.
 - (d) The Economist.
- 32 Which of these will NOT help you to decide whether a publication is reputable?
- (a) Citation rate.
 - (b) Audience.
 - (c) Importance to peers.
 - (d) Advertising inside.
- 33 The likely readers (or audiences) for a journal is a useful guide to the importance of that journal to your research. Why?
- (a) It indicates the likely editor.
 - (b) It indicates the likely publisher.
 - (c) It indicates the likely number of pages.
 - (d) It indicates the likely content.
- 34 Citation means that a particular paper has been:
- (a) reproduced elsewhere.
 - (b) quoted in another paper by another author.
 - (c) sold to another publisher.
 - (d) discussed orally by another author.
- 35 When you discover that an author has, (1) cited another author (2) it is good practice to:
- (a) locate and read the original, then attribute it to author 2.
 - (b) use the work and attribute it to author 1.
 - (c) use the work and attribute it to author 2.
 - (d) not to use the work.
- 36 Before searching you should define the timeframe of your search. Why?
- (a) So you don't find the library busy.
 - (b) So you do not incur unnecessary costs.

- (c) So you find the most articles.
 - (d) So you work when you are most efficient.
- 37 Which is the major disadvantage of using peer-reviewed journals in literature reviews?
- (a) Information could be as old as four years.
 - (b) Subscription fees are high.
 - (c) Humans control the quality.
 - (d) The information is too recent.
- 38 Why is it important for a researcher to review the literature?
- (a) Because it identifies like-minded researchers.
 - (b) Because it will find if anyone has done the work before.
 - (c) Because it shows time has been spent on the subject.
 - (d) Because it is traditional.
- 39 Which of these is the most efficient way to locate relevant journals?
- (a) Following up references in articles.
 - (b) Browsing the shelves in the library.
 - (c) Searching using tertiary sources.
 - (d) Browsing in newsagents.
- 40 Which one of these is not normally used by researchers to store references?
- (a) Word processing software.
 - (b) Panels.
 - (c) Spreadsheets.
 - (d) Handwritten index cards.
- 41 Hypothesis refers to
- (a) The outcome of an experiment
 - (b) A conclusion drawn from an experiment
 - (c) A form of bias in which the subject tries to outguess the experimenter
 - (d) A tentative statement about the relationship
- 42 Statistics is used by researchers to
- (a) Analyze the empirical data collected in a study
 - (b) Make their findings sound better
 - (c) Operationally define their variables
 - (d) Ensure the study comes out the way it was intended

- 43 A literature review requires
- (a) Planning
 - (b) Good & clear writing
 - (c) Lot of rewriting
 - (d) All of the above
- 44 A literature review is based on the assumption that
- (a) Copy from the work of others
 - (b) Knowledge accumulates and learns from the work of others
 - (c) Knowledge disaccumulates
 - (d) None of the above option
- 45 A theoretical framework
- (a) Elaborates the r/s among the variables
 - (b) Explains the logic underlying these r/s
 - (c) Describes the nature and direction of the r/s
 - (d) All of the above
- 46 Which of the following statement is not true?
- (a) A research proposal is a document that presents a plan for a project
 - (b) A research proposal shows that the researcher is capable of successfully conducting the proposed research project
 - (c) A research proposal is an unorganized and unplanned project
 - (d) A research proposal is just like a research report and written before the research project
- 47 Preliminary data collection is a part of the
- (a) Descriptive research
 - (b) Exploratory research
 - (c) Applied research
 - (d) Explanatory research
- 48 Conducting surveys is the most common method of generating
- (a) Primary data
 - (b) Secondary data
 - (c) Qualitative data
 - (d) None of the above
- 49 After identifying the important variables and establishing the logical reasoning in theoretical framework, the next step in the research process is

- (a) To conduct surveys
 - (b) To generate the hypothesis
 - (c) To focus group discussions
 - (d) To use experiments in an investigation
50. The appropriate analytical technique is determined by
- (a) The research design
 - (b) Nature of the data collected
 - (c) Nature of the hypothesis
 - (d) Both A & B
51. Research is
- (a) Searching again and again
 - (b) Finding solution to any problem
 - (c) Working in a scientific way to search for truth of any problem
 - (d) None of the above
52. Which of the following is the first step in starting the research process?
- (a) Searching sources of information to locate problem.
 - (b) Survey of related literature
 - (c) Identification of problem
 - (d) Searching for solutions to the problem
53. A common test in research demands much priority on
- (a) Reliability
 - (b) Useability
 - (c) Objectivity
 - (d) All of the above
54. Action research means
- (a) A longitudinal research
 - (b) An applied research
 - (c) A research initiated to solve an immediate problem
 - (d) A research with socioeconomic objective
55. A reasoning where we start with certain particular statements and conclude with a universal statement is called
- (a) Deductive Reasoning
 - (b) Inductive Reasoning
 - (c) Abnormal Reasoning
 - (d) Transcendental Reasoning

56. Which of the following variables cannot be expressed in quantitative terms?
- (a) Socio-economic Status
 - (b) Marital Status
 - (c) Numerical Aptitude
 - (d) Professional Attitude
57. The essential qualities of a researcher are
- (a) Spirit of free enquiry
 - (b) Reliance on observation and evidence
 - (c) Systematization or theorizing of knowledge
 - (d) All the above
58. In the process of conducting research ‘Formulation of Hypothesis’ is followed by
- (a) Statement of Objectives
 - (b) Analysis of Data
 - (c) Selection of Research Tools
 - (d) Collection of Data
59. A research paper is a brief report of research work based on
- (a) Primary Data only
 - (b) Secondary Data only
 - (c) Both Primary and Secondary Data
 - (d) None of the above
60. Which of the following statements is correct?
- (a) Objectives of research are stated in first chapter of the thesis
 - (b) Researcher must possess analytical ability
 - (c) Variability is the source of problem
 - (d) All the above
61. “A systematic step-by-step Procedure following logical process of reasoning” called
- (a) Experiment
 - (b) Observation
 - (c) Deduction
 - (d) Scientific method
62. Ethical Neutrality is a feature of
- (a) Deduction
 - (b) Scientific method

- (c) Observation
 - (d) Experience
63. Scientific method is committed to
- (a) Objectivity
 - (b) Ethics
 - (c) Proposition
 - (d) Neutrality
64. “One of the methods of logical reasoning process” is called
- (a) Induction
 - (b) Deduction
 - (c) Research
 - (d) Experiment
65. An essential Criterion of Scientific study is
- (a) Belief
 - (b) Value
 - (c) Objectivity
 - (d) Subjectivity
66. “Reasoning from general to particular “is called
- (a) Induction
 - (b) deduction
 - (c) Observation
 - (d) experience
67. “Deduction and induction are a part of system of reasoning” – stated by
- (a) Caroline
 - (b) P.V.Young
 - (c) Dewey John
 - (d) Emory
68. “ A system of systematically interrelated concepts definitions and propositions that are advanced to explain and predict phenomena” ... is
- (a) Facts
 - (b) Values
 - (c) Theory
 - (d) Generalization

69. “Empirically verifiable observation” is

- (a) Theory
- (b) Value
- (c) Fact
- (d) Statement

70 is “systematically conceptual structure of inter related elements in some schematic form”

- (a) Concept
- (b) Variable
- (c) Model
- (d) Facts

Ans. (1)(b), (2)(c), (3)(b), (4)(a), (5)(b), (6)(c), (7)(b), (8)(b), (9)(c), (10)(b), (11)(c), (12)(d), (13)(c), (14)(b), (15)(a), (16)(c), (17)(b), (18)(d), (19)(c), (20)(a), (21)(b), (22)(d), (23)(b), (24)(d), (25)(b), (26)(c), (27)(c), (28)(c), (29)(b), (30)(b), (31)(b), (32)(d), (33)(d), (34)(b), (35)(a), (36)(d), (37)(a), (38)(b), (39)(c), (40)(b), (41)(d), (42)(a), (43)(d), (44)(b), (45)(d), (46)(c), (47)(b), (48)(a), (49)(b), (50)(d), (51)(C), (52)(C), (53)(D), (54)(C), (55)(B), (56)(C), (57)(D), (58)(C), (59)(C), (60)(D), (61)(d), (62)(b), (63)(a), (64)(a), (65)(c), (66)(b), (67)(b), (68)(C), (69)(C), (70)(C).

II Short Answer Type Questions:

- 1 Define business research.
- 2 Describe the task of business research.
- 3 Define the nature of social science research
- 4 What is research problem?
- 5 What is hypothesis?
- 6 What do you mean by quantitative research?
- 7 What do you mean by qualitative research?
- 8 Define Ex post facto research.
- 9 What do you mean by Action Research?
- 10 What do you mean by historical research?
- 11 What do you mean by experimental research?
- 12 Write a short note on determination of information needed
- 13 Differentiate between Descriptive and Exploratory research
- 14 Differentiate between Qualitative and Quantitative research
- 15 When is a problem suitable for research supposed to exist?

- 16 What is business research? Why should there be any question about the definition of research?
- 17 Describe the characteristics of the scientific method.
- 19 Write short note on objectives of research.
- 20 Distinguish between research methods and research methodology.
- 21 Define the term hypothesis. What are its characteristics? What is its importance in research?
- 22 How to formulate a research problem.
- 23 Describe nominal, ordinal interval and ratio scale.
- 24 Describe the steps in constructing hypotheses.
- 25 What is the importance of reviewing of literature?
- 26 List the various steps in undertaking a scientific research.
- 27 Distinguish between 'concepts' and constructs with examples.
- 28 Explain the characteristics of a good hypothesis. Explain why the research question is always kept as an alternative hypothesis instead of a null hypothesis.
- 29 Explain the various steps in hypothesis testing using an example.
- 30 Write short note on types of measurement scale.
- 31 How would you distinguish between a management decision problem and management research problem? Do all decision problems require research?
- 32 Write short note on Research Gap.
- 33 Define business research and describe its task.
- 34 List the conditions that help a researcher decide when research should or should not be conducted.
- 35 For each of the following situations, decide whether the research should be exploratory descriptive or casual. Elaborate briefly on the reasons for your choice.
 - a) Identify target market demographics for a shopping center.
 - b) Establishing the functional relationship between advertising and sales.
 - c) Investigate consumer reactions to the idea of new laundry detergent that prevents shrinkage in hot water.
 - d) Estimate sales potential for a new lathe machine.
- 36 Distinguish between Experimental & Motivational research.
37. Elaborate various types of conclusive research.
- 38 Discuss the importance of research problem.
- 39 Differentiate between Continuous Scale and Categorical Scale Variables.
- 40 Distinguish between research Methods & Research Methodology.
- 41 Write short note on Components of a research problem.
- 42 What is the necessity of defining a research problem? Explain.
- 43 Write short not on Pilot survey.
- 44 What do you mean by research? Explain its significance in modern times.
- 45 Write short note on Criteria of good research;

III Long Answer Type Questions:

- 1 What do you mean by research? Explain its significance in modern times.
- 2 What is social research? Mention the fields of social research. Enumerate the principal steps involved in social research.
- 3 Describe the various extraneous variables which if not controlled in an experiment may contaminate the effect of the independent variable.
- 4 Explain the objectives, research design and method of analysis of the topic selected by you for dissertation.
- 5 What is meant by research? Briefly describe the different steps involved in a research process. Distinguish between research methods and research methodology.
- 6 Define a hypothesis. What are the advantages of formulating it in a research study?
- 7 Describe the criteria of a good hypothesis.
- 8 What hypothesis must be tested in the following situation?
- 9 The maker of the beverage 'Horlicks' have introduced a glucose biscuit under the same brand name. Another established biscuit manufacturer is interested in finding out the market reaction to the new product and the implications to his own sales.
- 10 How are hypotheses formulated? Explain the sources and uses of hypotheses.
- 11 What is the feature and role of research hypothesis?
- 12 Describe fully the techniques of defining a research problem.
- 13 What is research problem? Define the main issues which should receive attention of the researcher in formulating the research problem. Give suitable examples to elucidate your points.
- 14 What is first step in conducting a business research project?
- 15 What is the relationship of research to science? Explain different methods of research relevant to business research.
- 16 Is it necessary for every research project to have a set of hypotheses? Why or why not?
- 17 What is meant by hypothesis? What are the different types of hypotheses? How do you verify whether a hypothesis is true or false?
- 18 What are differences between questions and hypotheses?
- 19 Describe a microcomputer software program that can be used to assist the researcher in defining the research problem.
- 20 What is the difference between marketing intelligence and marketing research? Can they be used together?
- 21 "Empirical research in India in particular creates so many problems for the researches". State the problems that are usually faced by such researchers.
- 22 Briefly describe the different steps involved in a research process.
- 23 What is research problem? Define the main issues which should receive the attention of the researcher in formulating the research problem. Give suitable to elucidate your points.

- 24 What are the common types of errors encountered in defining a business research problem? What can be done to reduce the incidence of such errors?
- 25 State the research problems for each of the following management decision problems.
- (a) Should a new product be introduced?
 - (b) Should an advertising campaign that has run for three years be changed?
 - (c) Should the in-store promotion for an existing product line be increased?
 - (d) What pricing strategy should be adopted for a new product?
- 26 What is meant by measurement? What measurement components can exist in any specific measurement?
- 27 What are nominal, ordinal, interval and ratio measurement? What statistics can be used with each type of measurement?
- 28 Discuss in detail various types of research.
- 29 Describe steps involved in research process
- 30 Discuss in detail various applications of business research.
- 31 Explain what is meant by Literature Review? Why is it considered as a first step in research and explain its use?
- 32 Explain different phases of research project.
- 33 “The manager is not equipped to arrive at a focused and precise research question till the carries out a thorough inventory check of the problem area”. Examine the above statement and justify your answer with example.
- 34 Select a research problem enlist the variables in the problem and formulate a theoretical frame work to demonstrate the link between the variables under study.
- 35 Differentiate between Concept, Indicators and Variables? Explain the types of Variables and their usage in details.
- 36 Describe the type of research evidence that allows one to infer causality .
- 37 How may the formulation of an initial substantive theory help in the development of a research proposal?
- 38 What are the differences between research questions and hypotheses? What are the characteristics and functions of hypotheses? Illustrate.
- 39 Elaborate the techniques involved in defining Research Problem
- 40 Discuss the various steps involved in testing Hypothesis.
- 41 How hypothesis is useful in illustrating a research problem give any two examples.
- 42 Define the main issues which should receive the attention of the researcher in formulating the research problem. Give suitable examples.
- 43 “The first stage in research is discovering where to look for information and opinions on your topic” Discuss.
- 44 What is research problem? Define the main issues which should receive the attention of the researcher in formulating the research problem. Give suitable examples to elucidate your points.

- 45 “Research is much concerned with proper fact finding, analysis and evaluation.” Do you agree with this statement? Give reasons in support of your answer.
- 46 How to formulate a research problem? What factors are considered in formulating a research problem? Give examples of few research problems being addressed by researchers.
- 47 What do you understand by Hypothesis? Give its classification. Explain in detail the process of hypothesis testing?
- 48 How do you define a research problem? Give three examples to illustrate your answer.

UNIT - II

I Test Your Skills:

(a) Multiple Choice Questions:

- 1 Which ONE of these services is NOT a search engine?
- (a) Archie
 - (b) Google
 - (c) Dewey
 - (d) Yahoo
- 2 The Freedom of Information Act 2000 concerns:
- (a) data privacy
 - (b) personal data
 - (c) public authorities
 - (d) something other than the options given
- 3 Which ONE of these is the best description of secondary data?
- (a) Ordinary data
 - (b) Existing data
 - (c) Omnibus data
 - (d) Ordinal data
- 4 Which ONE of these is a good example of tertiary data?
- (a) An article
 - (b) A book index
 - (c) A complaint letter
 - (d) A research report

- 5 Secondary data is LEAST helpful in:
- (a) developing questionnaires
 - (b) interpreting tables
 - (c) formulating hypotheses
 - (d) evaluating new products
- 6 Which ONE is the most damaging problem for the researcher with secondary data?
- (a) It may not be accurate
 - (b) It may be biased
 - (c) It may not address the aims
 - (d) It may only provide part of the answer
- 7 Which ONE of these types of secondary data sources is internal? (Consider them from the viewpoint of a computer games software seller.)
- (a) Magazine reviews of games
 - (b) Past sales to specialist stores
 - (c) Competitor price lists on the web
 - (d) Published market reports
- 8 Which ONE of these types of secondary data is external? (Consider them from the view point of a computer games software seller.)
- (a) Magazine reviews of games
 - (b) Past sales to specialist stores
 - (c) Employee feedback
 - (d) Own production figures
- 9 Which ONE of these will best help us to assess the reliability of information found in desk research?
- (a) The source
 - (b) The search engine used
 - (c) The price we pay
 - (d) The time it takes to obtain
- 10 Desk research plans should start with:
- (a) Primary data
 - (b) External secondary data
 - (c) Tertiary data
 - (d) Internal secondary data

- 11 According to historical accounts, face-to-face methods have been used since the early years of civilization to collect population figures. Why were these records kept?
- (a) For religious purposes
 - (b) For taxation purposes
 - (c) For scientific purposes
 - (d) For historical purposes
- 12 When did the telephone become an accepted tool for primary data collection in marketing research?
- (a) 1930s
 - (b) 1950s
 - (c) 1970s
 - (d) 1990s
- 13 If someone uses research as part of a sales effort, this is said to be:
- (a) Syndicating.
 - (b) Sugging
 - (c) Satisficing
 - (d) Surveying
- 14 Which ONE of these is NOT an intrinsic factor?
- (a) The questionnaire style
 - (b) The interviewer's voice
 - (c) The interview situation
 - (d) The informant's memory
- 15 Acquiescence response bias is usually:
- (a) Disagreement with little consideration.
 - (b) Agreement with little consideration.
 - (c) Over consideration.
 - (d) Something other than the options offered.
- 16 A primary data collection method that involves tracking behaviour over a period of time is called:
- (a) Browsing
 - (b) Observation
 - (c) Sampling
 - (d) Testing
- 17 Mystery shopping is a form of:

- (a) Questionnaire
 - (b) Observation
 - (c) Analysis
 - (d) Postal survey
- 18 Which ONE of these methods is the fastest way to collect data?
- (a) Online
 - (b) Personal
 - (c) Phone
 - (d) Postal
- 19 Which ONE of these methods is the most expensive way to collect data per respondent?
- (a) Online
 - (b) Personal
 - (c) Phone
 - (d) Postal
- 20 Which ONE of these methods has the highest response rate?
- (a) Online
 - (b) Personal
 - (c) Phone
 - (d) Postal
- 21 The difference between measures and indicators is that:
- (a) Measures are unambiguous quantities, whereas indicators are devised from common sense understandings
 - (b) Indicators have a more direct relationship to the underlying concept than measures
 - (c) Measures are intuitively devised and then applied as if they were direct indicators of a concept
 - (d) Indicators are unambiguous quantities, whereas measures are subjective and value-laden
- 22 The split-half method is used as a test of:
- (a) Stability
 - (b) Internal reliability
 - (c) Inter-observer consistency
 - (d) External validity
- 23 Which of the following is not a form of measurement validity?
- (a) Concurrent validity

- (b) Face validity
 - (c) Constructive validity
 - (d) Convergent validity
24. Quantitative social researchers rarely claim to have established causality because:
- (a) They are more concerned with publishing the results of their reliability tests
 - (b) They do not believe that this is an appropriate goal to be striving for
 - (c) They keep forgetting which of the variables they have manipulated
 - (d) They tend to use cross-sectional designs, which produce only correlations
25. One of the preoccupations of quantitative researchers is with generalization, which is a sign of:
- (a) External validity
 - (b) Internal reliability
 - (c) External reliability
 - (d) Internal validity
26. Closed ended questions are those that:
- (a) Have a fixed range of possible answers
 - (b) Prevent respondents from allocating themselves to a category
 - (c) Encourage detailed, elaborate responses
 - (d) Relate to the basic demographic characteristics of respondents
27. Which of the following is not a disadvantage of telephone interviewing?
- (a) Researchers do not have to spend so much time and money on travelling
 - (b) Some people in the target population may not own a telephone
 - (c) It can be difficult to build rapport over the telephone
 - (d) Interviewers cannot use visual cues such as show cards
28. Which of the following might you include in an introductory letter to respondents?
- (a) An explanation of who you are and who is funding your research
 - (b) An overview of what the research is about and how the data will be collected
 - (c) A statement of their ethical rights to anonymity, confidentiality, etc.
 - (d) All of the above
29. A filter question is one that:
- (a) Ensures that all respondents are asked every question on the schedule and in the same order
 - (b) Leaves a space for respondents to write long and detailed answers

- (c) Helps the interviewer to avoid asking irrelevant questions by directing them elsewhere on the schedule
 - (d) Allows supervisors to distinguish between good and bad interviewers
30. The acronym "CATI" stands for:
- (a) Camera-activated telescopic interviewing
 - (b) Computer-assisted telephone interviewing
 - (c) Corrective anti-terrorist interviewing
 - (d) Critical analysis of telepathic interviewing
31. A study is based on 30 people (across three focus groups). What type of study is this?
- (a) Structured study.
 - (b) Quantitative study.
 - (c) Qualitative study.
 - (d) Questionnaire study.
32. A study is based on 1000 people interviewed face to face in shopping centres. What type of study is this?
- (a) Questionnaire study.
 - (b) Qualitative study.
 - (c) Self-completion study.
 - (d) Ethnographic study.
33. In which of these studies is validity in question?
- (a) Qualitative.
 - (b) Positivist.
 - (c) Quantitative.
 - (d) Quantitative.
34. Which research strategy is described here?
The introduction of planned change on one or more of the variables; measurement on a small number of variables and control of other variables.
- (a) Experiment.
 - (b) Survey.
 - (c) Case study.
 - (d) Ethnography.
35. Triangulation can come about from which one of the following?
- (a) Doing a survey with at least three respondents.

- (b) Using one of three sampling methods.
- (c) Checking results three times.
- (d) Using more than one approach.

36. Which research strategy is described here?

The collection of data using questionnaires, but it also includes other techniques (e.g. structured observation and structured interviews).

- (a) Action research.
- (b) Grounded theory.
- (c) Survey.
- (d) Ethnography.

37. Which research strategy is described here?

The researcher is involved in the acts under study; s/he causes changes and monitors the outcomes

- (a) Action research.
- (b) Survey.
- (c) Case study.
- (d) Grounded theory.

38. Which of these should be most valuable to show a gradual change in behaviour over time?

- (a) Extrapolations.
- (b) Snapshot surveys.
- (c) Experimental studies.
- (d) Longitudinal studies.

39. Which research strategy is described here?

Theory is developed from data generated by a series of observations or interviews principally involving an inductive approach.

- (a) Grounded theory.
- (b) Action research.
- (c) Ethnography.
- (d) Experiment.

40. For any study you should question the validity and reliability of:

- (a) the sampling procedure.
- (b) the interviewing process.
- (c) the questionnaire.
- (d) all of the above.

- 41 Personal interviews conducted in shopping malls are known as:
- (a) Mall interviews
 - (b) Mall intercept interviews
 - (c) Brief interviews
 - (d) None of the given options
- 42 WATS lines provided by long distance telephone service at fixed rates. In this regard, WATS is the abbreviation of:
- (a) West Africa Theological Seminary
 - (b) Washtenaw Area Transportation Study
 - (c) Wide Area Telecommunications Service
 - (d) World Air Transport Statistics
- 43 A list of questions which is handed over to the respondent, who reads the questions and records the answers himself is known as the:
- (a) Interview schedule
 - (b) Questionnaire
 - (c) Interview guide
 - (d) All of the given options
- 44 One of the most critical stages in the survey research process is:
- (a) Research design
 - (b) Questionnaire design
 - (c) Interview design
 - (d) Survey design
- 45 Question that consists of two or more questions joined together is called a:
- (a) Double barreled question
 - (b) General question
 - (c) Accurate question
 - (d) Confusing question
- 46 The number of questionnaires returned or completed divided by the total number of eligible people who were contacted or asked to participate in the survey is called the:
- (a) Response rate
 - (b) Participation rate
 - (c) Inflation rate
 - (d) None of the given options

- 47 To obtain the freest opinion of the respondent, when we ask general question before a specific question then this procedure is called as the:
- (a) Research technique
 - (b) Qualitative technique
 - (c) Funnel technique
 - (d) Quantitative technique
- 48 A small scale trial run of a particular component is known as:
- (a) Pilot testing
 - (b) Pre-testing
 - (c) Lab experiments
 - (d) Both A & B
- 49 Field testing of the questionnaire shows that:
- (a) Respondents are willing to co-operate
 - (b) Respondents are not willing to co-operate
 - (c) Respondents do not like any participation
 - (d) All of the given options
- 50 Service evaluation of hotels and restaurants can be done by the:
- (a) Self-administered questionnaires
 - (b) Office assistant
 - (c) Manager
 - (d) None of the given options
- 51 Which of the following is NOT a longitudinal study?
- (a) Trend study
 - (b) Panel study
 - (c) Cohort study
 - (d) Census Study
- 52 If the control variable has no effect on the bivariate relationship then it is:
- (a) Spurious relationship
 - (b) Not Spurious relationship
 - (c) Both A & B
 - (d) None of the given options
- 53 Which term technically describes a situation in which an observer's work in a first-grade classroom disrupts the normal routines due to the curiosity of the students?
- (a) Observed bias

- (b) Participant effect
 - (c) Non participant bias
 - (d) Observer bias
54. Which of the following terms best describes data that were originally collected at an earlier time by a different person for a different purpose?
- (a) Primary data
 - (b) Secondary data
 - (c) Experimental data
 - (d) Field notes
55. The person who leads a focus group discussion is called a _____.
- (a) Anchor
 - (b) Facilitator
 - (c) Moderator
 - (d) Recorder
56. Which section of a research report sets the stage for the report and indicates where in the report each component, tables, and figures can be found?
- (a) Preliminary pages
 - (b) Table of contents
 - (c) Main body
 - (d) Appendices
57. In a study of the relationship between self-concept and resilience for males and for females, the minimal acceptable sample size for the whole study would be
- (a) 10
 - (b) 30
 - (c) 60
 - (d) 90
58. Which of the following is an excellent way to enhance the validity of observational data collection?
- (a) Spend an extended period of time in the field.
 - (b) Obtain participant trust.
 - (c) Recognize your own biases.
 - (d) All of the above
59. "Skepticism" is a norm of science. It is better explained by which of the following

statement?

- (a) Combining the previous knowledge
- (b) Critical reading of the previous researches
- (c) Providing the proper references of quoted text
- (d) All of the above

60. On which component of his field notes was Mr. M focused when he expressed in his notes his thoughts and ideas about what he observed?

- (a) Reflection
- (b) Protocol
- (c) Formal data
- (d) All of the above

61. A Blue print of Research work is called

- (a) Research Problem
- (b) Research design
- (c) Research tools
- (d) Research methods

62. The concrete observable events which represent the abstract concepts or constructs are called

- (a) Data
- (b) Sample
- (c) Variable
- (d) Proposition

63. In the main purpose is to formulate a problem for more precise investigation

- (a) Exploratory or Formulative study
- (b) Descriptive study
- (c) Diagnostic study
- (d) None of the above

64. The main objective of study's to acquire knowledge

- (a) Exploratory
- (b) Descriptive
- (c) Diagnostic
- (d) Descriptive and Diagnostic

65. is concerned with discovering and testing certain variables with respect

to their association or disassociation

- (a) Exploratory
- (b) Descriptive
- (c) Diagnostic
- (d) Descriptive and diagnostic

66. is concerned with discovering and testing certain variables with respect to their association or disassociation

- (a) Exploratory
- (b) Descriptive
- (c) Diagnostic
- (d) None of the above

67. is compared to Mariner's Compass in sea voyage

- (a) Research Problem
- (b) Data collection
- (c) Sampling
- (d) Research design

68. prevent a researcher from blind search and intellectual wandering

- (a) Data
- (b) Sample
- (c) Research tools
- (d) Research design

69. Research design is a blue print, outline and a

- (a) Plan
- (b) System
- (c) Strategy
- (d) Guide

70. Facts, figures and other relevant materials serving as bases for a study is called

- (a) Sample
- (b) Method
- (c) Data
- (d) Theory

Ans. (1)(c), (2)(c), (3)(b), (4)(b), (5)(d), (6)(c), (7)(b), (8)(a), (9)(a), (10)(c), (11)(b), (12)(c), (13)(b),(14)(d),(15)(b),(16)(b),(17)(b),(18)(a),(19)(b),(20)(b),(21)(a),(22)(b),(23)(c),(24)(d),(25)(a), (26)(a),(27)(a),(28)(d),(29)(c),(30)(b), 31(c),32(a),33(a),34(a),35(d), 36(c), 37(a), 38(d),39(a), 40(d), 41(b),42(c),43(b),44(b),45(a), 46(a), 47(c), 48(d),49(a),50(a),

51(d), 52(b), 53(a), 54(b), 55 (c), 56(b), 57(b), 58(d), 59(b), 60(a), 61(b), 62(c), 63(a), 64(b), 65 (c), 66(a), 67(d), 68(d), 69(a), 70(c)

II Short Answer Type Questions:

- 1 What do you mean by primary data?
- 2 What is the difference between questionnaire and schedule?
- 3 What do you mean by scaling?
- 4 What is depth interview
- 5 Important aspect of a questionnaire
- 6 Explain Pantry and store audits
- 7 Explain Thematic Apperception Test
- 8 Explain Holtzman Inkblot Test
- 9 Briefly explain the concept of reliability and validity.
- 10 What do you mean by participant observation?
- 11 What is research design?
- 12 Distinguish between Descriptive and causal studies
- 13 Distinguish between exploratory studies and formal studies
- 14 Distinguish between experimental and ex post facto research designs.
- 15 What is data mining?
- 16 Describe various of focus group techniques
- 17 Discuss various types of qualitative research methods.
- 18 Discuss various types of research designs
- 19 Differentiate internal validity and external validity.
- 20 A nationalized bank wants to start in your city. It has appointed you as a consultant to suggest a research design to help in its decision making. What research design would you suggest? Give reasons.
- 21 Discuss face and content validity
- 22 Discuss concurrent and predictive validity.
- 23 Write short note on construct validity.
- 24 Describe external reliability of research instrument.
- 25 Describe internal reliability of research instrument.
- 26 List the various necessary conditions that are required to be fulfilled in order to study any cause and effect relationship.
- 27 A likert scale is considered as an Uni-dimensional scale. What is meant by Uni-dimesional? How can we infer that a set of statements that measures a single construct in a Likert scale is Uni-dimensional?
- 28 Explain the different ways which measures the internal consistency of a scale

- 29 Explain how to evaluate the validity of an instrument?
- 30 What is measurement error and discuss various types of measurement accuracy and the methods to measure them.
- 31 Define attitude. Briefly explain three components of attitude.
- 32 Differentiate between Ordinal and Nominal scale.
- 33 You have decided to undertake a project and have defined the main research question as ‘What are the opinions of consumers to a 10 per cent reduction in weight, with the price remaining the same, of “Snackers” chocolate bars?’ Write a hypothesis that you could test in your project.
- 34 Why may it be argued that the concept of the manager is socially constructed rather than ‘real’?
- 35 Write Short note on:
 - (a) Focus Group Interviewing
 - (b) Ethical Issues in business Research
 - (c) Validity and Reliability of Research instruments
- 36 Discuss various scales of attitude measurement.
- 37 “Research design is the blue print of research”. Explain.
- 38 Discuss various sources of secondary data collection.
- 39 Differentiate between Questionnaire & scheduling.
- 40 Discuss various types of cross sectional research design.
- 41 Give your understanding of a good research design. Is single research design suitable in all research studies? If not, why?
42. Explain the meaning of the following in context of Research design.
 - (a) Extraneous variables;
 - (b) Confounded relationship;
 - (c) Treatments.;
 - (d) Experimental and Control groups;

III Long Answer Type Questions:

- 1 How does formulating a research design differ from developing an approach to a problem?
- 2 What are the potential sources of error can affect a research design?
- 3 Welcome Inc. is a chain of fast-food restaurants located in major metropolitan areas in the South. Sales have been growing very slowly for the last two years. Management has decided to add some new items to the menu, but first they want to know more about their customers and their preferences.
 - (a) List two hypotheses
 - (b) What kind of research design is appropriate? Why
- 4 What are the common requirements for qualitative research methods in general?

- 5 Think of and list down some applications where qualitative methods are better than quantitative methods.
- 6 What do you mean by a questionnaire? How a questionnaire is different from schedule? What are the advantages and disadvantages of a questionnaire?
- 7 Enumerate the different methods of collecting data. Which one is the most suitable for conducting enquiry regarding family welfare programme in India? Explain its merits and demerits.
- 8 Describe some of the major projective techniques and evaluate their significance as tools of scientific social research.
- 9 What are the differences between primary and secondary data? Why is it important to obtain secondary data before primary data?
- 10 Distinguish between an experiment and survey. Explain fully the survey method of research.
- 11 What are the guiding considerations in the construction of questionnaire? Explain
- 12 What are structured, pictorial and unstructured questionnaire? Explain with the help of a relevant example.
- 13 Discuss various types Study design.
- 14 Describe various types of attitudinal scales
- 15 What is meant by the reliability and validity of a measurement? Discuss the various techniques available to assess each.
- 16 Describe the advantages and limitations of the following scales:
 - (a) Summated rating scale
 - (b) Equal appearing interval scale
 - (c) Cumulative Scale
- 17 Develop a Likert's scale for measuring the opinion of students in Delhi regarding the issue of 33% reservation for women in the parliament. Give the advantages of using this scale.
- 18 Briefly describe the following attitude measurement models
 - (a) The Guttman Scale
 - (b) The Semantic Differential Scale
 - (c) Thurstone's equal-appearing interval scale
- 19 Why is the focus group the most popular qualitative research technique? Why is the focus group moderator so important in obtaining quality results?
- 20 Write an essay on the credibility and usefulness of online resources for research.
- 21 Describe some of the important research designs used in experimental hypothesis-testing research study.
- 22 What is research design? Discuss the basis of stratification to be employed in sampling public opinion on inflation.
- 23 "Research design in exploratory studies must be flexible but in descriptive studies, it must minimize bias and maximize reliability." Discuss.
- 24 Explain the meaning and significance of research design.

- 25 How does case study method differ from the survey method? Analyze the merits and demerits/limitations of case study method in sociological research.
- 26 Examine the merits and limitations of the observation methods in collecting material. Illustrate your answer with suitable example.
- 27 What are the guiding considerations of questionnaire? Explain.
- 28 What is the meaning of measurement in research? What difference does it make whether we measure in terms of a nominal, ordinal, interval or ratio scale? Explain giving examples.
- 29 "Scale describes the procedures by which numbers are assigned to various degrees of opinion, attitude and other concepts." Discuss. Also point out the bases for scale classification.
- 30 Write short note on :
- (a) Semantic differential scale
 - (b) Likert –type scale
 - (c) Arbitrary scales
- 31 Discuss with the help of examples the four key levels of measurements. What statistical techniques are permissible on data from each type of scale?
- 32 Describe each of the following:
- (a) Test- retest reliability
 - (b) Split half reliability.
 - (c) Cronbach alpha
 - (d) Content validity
 - (e) Predictive validity.
- 33 Differentiate between Likert, Thurstone and Guttman Scale with suitable examples?
- 34 Differentiate between experimental, non-experimental and quasi experimental study designs with suitable examples?
- 35 You wish to study the reasons why car owners join manufacturer-sponsored owners' clubs. Your chosen research design is to have unstructured discussions with some members of these owners' clubs. You are asked by small group of marketing managers to explain why your chosen research design is as valid as a questionnaire-based survey. What would be your answer?
- 36 Briefly explain the primary scales of measurement. Illustrate with suitable examples specifying the permissible statistics for each of the scale.
- 37 Distinguish between primary and secondary information. Discuss the importance and limitations of each of them. Illustrate with examples.
- 38 What do you understand by the validity of research instruments? What is its relevance? How is it measured?
- 39 Enumerate the different methods of collecting data giving one example each.
- 40 What do you understand by experimental research design and ex post facto research design? Under which situation they are appropriate.

- 41 Differentiate between interview & observation method of data collection. Discuss types of observation for data collection.
- 42 Differentiate between cross sectional & longitudinal research design. Under which situations these are used.
- 43 As far as secondary data is available there is no need to for expensive & time consuming primary data collection----- explain the above statement.
- 44 What do you understand by Reliability and Validity? How do we check the reliability and validity of any research instrument? Discuss with examples.
- 45 What measurement scales are used for Attitude measurement? Discuss them with examples.
- 46 What is research design? Discuss the basis of stratification to be employed in sampling public opinion on inflation.
- 47 Describe some of the important research designs used in experimental hypothesis-testing research study.
- 48 “Research design in exploratory studies must be flexible but in descriptive studies, it must minimise bias and maximise reliability.” Discuss.

UNIT - III

I Test Your Skills:

(a) Multiple Choice Questions:

- 1 Interviewing all members of a given population is called:
- (a) A Sample
 - (b) A Gallup poll
 - (c) A census
 - (d) A Nielsen audit
- 2 In the UK, which ONE of these sampling frames became popular for UK domestic populations after 1990?
- (a) The Electoral Register
 - (b) Yellow Pages directories
 - (c) Postcode address file (PAF)
 - (d) Kompass directories
- 3 Sampling means following a sequence of stages. Which ONE of the following stages should come before the others?
- (a) Proceed with the fieldwork

- (b) Find suitable source for the population members
 - (c) Define the people of interest
 - (d) Examine the objective of the study
- 4 Which ONE of these sampling methods is a probability method?
- (a) Quota
 - (b) Judgement
 - (c) Convenience
 - (d) Simple random
- 5 For sampling, which ONE of the following should be up-to-date, complete and affordable?
- (a) A census
 - (b) A CAPI machine
 - (c) A sampling frame
 - (d) A respondent
- 6 Which ONE of these sample sources will be the most incomplete for a sample of nationally representative households?
- (a) The Electoral Register
 - (b) The postcode address file (PAF)
 - (c) Telephone directories
 - (d) A customer database
- 7 Which ONE of the following is the benefit of using simple random sampling?
- (a) We can calculate the accuracy of the results
 - (b) The results are always representative
 - (c) Interviewers can choose respondents freely
 - (d) Informants can refuse to participate
- 8 Which ONE of the following is the main problem with using non-probability sampling techniques?
- (a) The expense
 - (b) The results are never representative
 - (c) Human judgment error
 - (d) Informants can refuse to participate
- 9 Which ONE of the following is the best - but an often unused - way to decide on sample size?
- (a) By using industry standards
 - (b) By calculation

- (c) By building blocks
 - (d) By budget available
- 10 Which ONE of the following methods is generally used in qualitative sampling?
- (a) Random digit dialling
 - (b) Quota
 - (c) Stratified random
 - (d) Simple random
- 11 When new information inhibits recall of previously memorised information this is known as...
- (a) Proactive inhibition
 - (b) Retroactive inhibition
 - (c) Sugging
 - (d) Telescoping
- 12 One thing that should definitely not affect a respondent's ability to answer questions is...
- (a) Retroactive inhibition
 - (b) Physical disability
 - (c) Telescoping
 - (d) Repression
- 13 Why is stimulus material used at interviews?
- (a) As an incentive to participate
 - (b) To assist the interview process
 - (c) As a gift
 - (d) Something else
- 14 Which of these is NOT an example of stimulus material?
- (a) Advertising jingles
 - (b) Lists
 - (c) Payment
 - (d) Show cards
- 15 Which of these approaches can make the best use of stimulus material?
- (a) Web questionnaire
 - (b) Telephone interview
 - (c) Postal Questionnaire
 - (d) Focus Group

- 16 Projective techniques are an alternative to?
- (a) Computers
 - (b) Questions
 - (c) CATI
 - (d) Questionnaires
- 17 A respondent is asked to describe her car as if it were an animal. Of what is this an example?
- (a) A filter question
 - (b) A semantic differential scale
 - (c) A closed question
 - (d) A Projective test using Analogy
- 18 "Do you think we should recycle more household waste because there is a serious risk of destroying planet earth by our overuse of resources and abuse of the environment?" is an example of...
- (a) A generalization
 - (b) A leading question
 - (c) Position bias
 - (d) An open-ended question
- 19 What is an advantage of using open-ended questions?
- (a) Potential is high for interviewer bias
 - (b) They can also be used in panel research
 - (c) People can express themselves in their own way
 - (d) Expensive analysis uses budgets too quickly
- 20 What is typically used to plan a questionnaire?
- (a) Gantt chart
 - (b) Flow chart
 - (c) Pie chart
 - (d) Polar diagram
21. Being able to talk to the people you need in a situation that is best suited to providing results. What is this?
- (a) Informed consent.
 - (b) Lack of consent.
 - (c) Implied consent.
 - (d) Something else.

22. The participant consent given freely and based on full information.
What is this?
- (a) Informed consent.
 - (b) Lack of consent.
 - (c) Implied consent.
 - (d) Something else.
23. Telephone contact will be improved if:
- (a) you link to your privacy policy.
 - (b) you offer to call back.
 - (c) you give a link to a web page with more explanation of the project.
 - (d) you enclose a SAE.
24. Email contact will be improved if:
- (a) you give a link to a web page with more explanation of the project.
 - (b) you enclose a SAE.
 - (c) you offer to call back.
 - (d) you use coloured paper.
25. Postal contact will be improved if:
- (a) you give a link to a web page with more explanation of the project.
 - (b) you link to your privacy policy.
 - (c) you enclose a SAE.
 - (d) you charge the respondent money.
26. _____ is the first stage in sampling process
- (a) Proceed with the fieldwork
 - (b) Find suitable source for the population members
 - (c) Define the people of interest
 - (d) Examine the objective of the study
27. _____ is a probability method
- (a) Quota
 - (b) Judgement
 - (c) Convenience
 - (d) Simple random
28. For sampling _____ should be up-to-date, complete and affordable
- (a) A census
 - (b) A CAPI machine

- (c) A sampling frame
 - (d) A respondent
29. _____ will be the most incomplete sample source for a sample of nationally representative households
- (a) The Electoral Register
 - (b) The postcode address file (PAF)
 - (c) Telephone directories
 - (d) A customer database
30. _____ is the benefit of using simple random sampling
- (a) We can calculate the accuracy of the results
 - (b) The results are always representative
 - (c) Interviewers can choose respondents freely
 - (d) Informants can refuse to participate
31. Which of the following is NOT part of the sampling design process?
- (a) Defining of the population of the study.
 - (b) Specifying the sampling unit.
 - (c) Refining the research question.
 - (d) Selection of the sampling technique.
 - (e) Determining the relevant sample frame.
32. The target population be defined in terms of:
- (a) sampling units - the set of elements available for selection during the sampling process.
 - (b) extent - the geographical boundaries.
 - (c) time - the time period under consideration.
 - (d) elements - the object about which information is desired.
 - (e) all of the above.
33. What is a sampling unit?
- (a) The population.
 - (b) The basic unit containing the elements of the population to be sampled.
 - (c) All the individual elements of the final sample, drawn together.
 - (d) The method used to collect the sample.
 - (e) The sampling frame.
 - (f) None of the above.

34. Which of the following is NOT a qualitative factor that should be considered in determining the sample size?
- (a) The precision needed for the results.
 - (b) The nature of the analysis.
 - (c) The importance of the decision.
 - (d) Sample sizes used in similar studies.
 - (e) The number of variables.
35. Which of the following is NOT true of probability sampling?
- (a) The results will always be more accurate than non-probability sampling.
 - (b) The number of elements to be included in the sample set can be pre-specified.
 - (c) Sampling units are selected by chance as opposed to the judgement of the researcher.
 - (d) Estimates are statistically projectable to the population.
 - (e) It is possible to specify the probability of selecting any particular sample of a given size.
36. What is the least expensive and least time-consuming of all sampling techniques?
- (a) Judgmental sampling.
 - (b) Snowball sampling.
 - (c) Stratified sampling.
 - (d) Convenience sampling.
 - (e) Simple random sampling.
37. What are the distinguishing features of simple random sampling?
- (a) Each element in the population has a known and equal probability of selection.
 - (b) Random numbers determine which elements are included in the sample.
 - (c) A sampling frame must be compiled in which each element has a unique identification number.
 - (d) Each possible sample of a given size has a known and equal probability of being the sample actually selected.
 - (e) All of the above.
38. Which of the following are NOT criteria for the selection of stratification variables in stratified sampling?
- (a) Stratifications variables should not be closely related to the characteristic of interest.
 - (b) Elements within a stratum should be as homogeneous as possible.
 - (c) The strata should be mutually exclusive and collectively exhaustive so that every population element should be assigned to one and only one stratum.

- (d) Across the strata, the elements should be as heterogeneous as possible.
 - (e) Stratification variables should be easy to measure and apply.
39. Select all of the following statements which you believe to be true.
A truly random sample of the general population would be obtained by:
- (a) selecting every individual with a surname beginning with the letter S.
 - (b) selecting every 20th individual from a list of patients registered with a GP.
 - (c) Closing your eyes and sticking a pin into a telephone directory.
 - (d) selecting an individual from every fourth house on a street.
 - (e) Allocating each individual a unique number and using a computer to randomly generate numbers for selection.
40. Below is a list of populations and samples. Select the sample that is most likely to be representative (rather than biased) of the population from which it is drawn
- (a) Population: The general population in an inner London borough. Sample: All patients registered at local GP surgeries in the same area.
 - (b) Population: Owners of luxury cars. Sample: BMW owners.
 - (c) Population: Online shoppers. Sample: List of individuals who have web-based email.
 - (d) Population: Owners of luxury cars. Sample: subscribers to What Car magazine.
 - (e) Population: Adults from a single geographic area. Sample: Employees at a local factory.
- 41 Departmental stores selected to test a new merchandising display system is the example of
- (a) Quota sampling
 - (b) Convenience sampling
 - (c) Judgmental sampling
 - (d) Purposive sampling
- 42 A magazine conducts a survey and asks its readers to cut the questionnaire from the magazine, fill it up and send it via mail. It is a type of
- (a) Purposive Sampling
 - (b) Snowball sampling
 - (c) Sequential sampling
 - (d) Convenience sampling
- 43 The height distribution of a few students in a school is an example of
- (a) Statistic
 - (b) Population

- (c) Parameter
 - (d) Element
- 44 A researcher wants to conduct a survey of the drug users, Which type of sampling technique will be most appropriate here?
- (a) Sequential sampling
 - (b) Snowball sampling
 - (c) Quota sampling
 - (d) Convenience sampling
- 45 When there is need to apply different data collection methods to different parts of the population, the best sampling method would be
- (a) Double sampling
 - (b) Cluster sampling
 - (c) Stratified random sampling
 - (d) Systematic random sampling
- 46 The sampling technique in which every element of the population has an equal, non-zero probability of being selected in a sample, is called
- (a) Probability sampling
 - (b) Convenience Sampling
 - (c) Purposive sampling
 - (d) Quota sampling
- 47 Target population is also called
- (a) Population
 - (b) Survey population
 - (c) Population element
 - (d) Population frame
- 48 Which of the following method is for probing the respondent?
- (a) Repeat the question
 - (b) Give the expectant pause
 - (c) Repeat the respondent reply
 - (d) All of the above
- 49 The numerical description that describe sample may be expected to differ from those that describe population because of random fluctuations inherent in sampling process.
- (a) Sampling design
 - (b) Non-probability sampling

- (c) Sampling error
 - (d) Probability sampling
50. In _____, each population element has a known and equal chance of selection.
- (a) Purposive sampling
 - (b) Quota sampling
 - (c) Stratified sampling
 - (d) Simple random sampling
51. The process of gaining access to data from intended participants. This involves participants agreeing to be interviewed, within agreed limits. This is the definition for:
- (a) physical access.
 - (b) cognitive access.
 - (c) continuing access.
 - (d) informed consent.
52. Which is the odd one out?
- (a) Codes of Conduct (the MRS, BPS, CIM, CMI).
 - (b) The Data Protection Law.
 - (c) The European Convention on Human Rights.
 - (d) The Freedom of Information Acts.
53. Position achieved when intended participants are fully informed about the nature, purpose and use of research to be undertaken and their role within it, and where their agreement is given. This is the definition for:
- (a) informed consent.
 - (b) physical access.
 - (c) continuing access.
 - (d) cognitive access.
54. The Data Protection Act has eight principles to make sure that personal information is handled properly. Which of these is not one of the eight?
- (a) Data must be adequate.
 - (b) Data must be fairly processed.
 - (c) Data must be kept for five years.
 - (d) Data must be processed for limited purposes.
55. The initial level of gaining access to an organisation to conduct research. This is the definition for:
- (a) physical access.

- (b) cognitive access.
 - (c) informed consent.
 - (d) continuing access.
56. Here is an extract from a letter requesting participation in a research study. "We are a group of second year undergraduate students at the University of Northminster conducting research into communication between staff and students within the Business School. We are seeking your support in our research." What is wrong?
- (a) It is badly written.
 - (b) It does not explain why you want to gain access.
 - (c) It does not explain what will happen to information collected.
 - (d) It does not state who wants access.
57. Questionnaires are delivered through the letterboxes of 100 homes. What is wrong with this research design?
- (a) Some people may not reply.
 - (b) There is no cover letter.
 - (c) It is against the law to deliver unsolicited questionnaires.
 - (d) The researcher must knock on the door.
58. An employee has been asked to act as a researcher and talk to customers about a new product which is being tested and may be launched next year. At one office one respondent introduces the researcher to a representative from a trade magazine. In casual conversation our employee mentions the new product. Is this:
- (a) not a problem.
 - (b) good practice.
 - (c) a good idea to get early press coverage.
 - (d) bad practice.
59. A student is investigating supermarket use of shelf space. This means talking to different store managers. Our student tells each of his respondents the details of what two of the other managers have said. This is:
- (a) a good idea to secure cooperation and interest.
 - (b) bad practice.
 - (c) not a problem.
 - (d) good practice.
60. The participant lacks knowledge and the researcher uses deception to collect data. What is this?
- (a) Lack of consent.
 - (b) Implied consent.

- (c) Informed consent.
 - (d) Something else.
61. Which of the following is not a way of assessing the trust worthiness of qualitative research?
- (a) Dependability.
 - (b) Accessibility.
 - (c) Transferability.
 - (d) Credibility
62. Research questions are crucial because they will.
- (a) guide your decisions about what data to collect and from where.
 - (b) help you to decide which research area interests you.
 - (c) ensure that your findings have external validity.
 - (d) prevent you from thinking about research
63. Which of the following type of cases is the most common within business and management research?
- (a) Single organization.
 - (b) A person.
 - (c) Single event.
 - (d) Single location
64. The role of a project supervisor is to -----.
- (a) bully the student until they agree to conduct the study that the supervisor had in mind all along
 - (b) provide intellectual support, guidance and critical feedback.
 - (c) negotiate access to the research setting on the student's behalf.
 - (d) guide the students to complete the work in advance
65. What is the name of the online database that allows you to browse through journal articles about your research topic?
- (a) Social Science Citation Index (SSCI).
 - (b) www.amazon.co.uk (ACU).
 - (c) ABC/CONFORM.
 - (d) Bryman's Resources for International Language Learning (BRILL).
66. The purpose of a literature review is to.

- (a) help you find out what is the research problem
- (b) identify the literature to collect data.
- (c) demonstrate an awareness of the theoretical context in which the current study can be located
- (d) help you find out what tools can be applied for analysis.

67. Which of the following should you think about when preparing your sample size?

- (a) Your sample frame and sampling strategy
- (b) The ethical issues that might arise.
- (c) Access to the set sample.
- (d) The universe, sample frame, sampling strategy and budget

68. Which of the following method is for probing the respondent?

- (a) Repeat the question
- (b) Give the expectant pause
- (c) Repeat the respondent reply
- (d) All of the above

69. When writing up your research, which of the following should you not do?

- (a) Start early.
- (b) Avoid your supervisor.
- (c) Be persuasive
- (d) Avoid racist, sexist.

70. Why do you need to review the existing literature

- (a) To give your dissertation a proper academic appearance, with lots of references.
- (b) Because without it, you could never reach the required word-count.
- (c) To find out what is already known about your area of interest
- (d) To help in your general studying.

Ans. (1)(c), (2)(c), (3)(d), (4)(d), (5)(c), (6)(d), (7)(a), (8)(c), (9)(b), (10)(b), (11)(b), (12)(b), (13)(b), (14)(c), (15)(d), (16)(b), (17)(d), (18)(b), (19)(c), (20)(b), (21)(d), (22)(a), (23)(b), (24)(a), (25)(c), (26)(d), (27)(d), (28)(c), (29)(d), (30)(a), (31)(c), (32)(e), (33)(b), (34)(a), (35)(a), (36)(d), (37)(e), (38)(a), (39)(e), (40)(a), 41(c), 42(d), 43(a), 44(b), 45(c), 46(a), 47(b), 48(d), 49(c), 50(d), 51(b), 52(a), 53(a), 54(c), 55(a), 56(c), 57(b), 58(d), 59(b), 60(a), 61(b), 62(a), 63(d), 64(b), 65(a), 66(c), 67(d), 68(b), 69(d), 70(c).

II Short Answer Type Questions:

- 1 What is sample?
- 2 What do you mean by sampling frame?
- 3 What is cluster sampling?
- 4 What is area sampling?
- 5 What do you mean by multi stage sampling?
- 6 What is stratified sampling?
- 7 What do you mean by universe?
- 8 What do you mean by snowball sampling?
- 9 What do you mean by sequential sampling?
- 10 What do you mean by systematic random sampling?
- 11 What do you mean by reporting errors?
- 12 What do you mean by processing errors?
- 13 What is serration of data?
- 14 What do you mean by inverse sampling
- 15 What is double sampling?
- 16 What do you mean by proportionate random sampling?
- 17 What do you mean disproportionate random sampling?
- 18 Discuss the sources of data collection.
- 19 Discuss the importance of interview techniques in data collection.
- 20 Discuss the importance of observation and survey methods in data collection.
- 21 Define sampling. Discuss the theory and types of sampling.
- 22 Explain importance of ethical issues in research.
- 23 What are different types of research proposals? Define them
- 24 What, if any, are the differences between solicited and unsolicited proposals?
- 25 Define various steps to design a research proposal.
- 26 What is significance of sample selection in research?
- 27 Differentiate between stratified random sampling and systematic sampling.
- 28 What is the significance of standard error in sampling analysis?
- 29 Write short note on sample size determination.
- 30 Identify a suitable sampling frame for each of the following research questions.
 - a) How do company directors of manufacturing firms of over 500 employees think a specified piece of legislation will affect their companies?
 - b) Which factors are important in accountants' decisions regarding working in mainland Europe?
 - c) How do employees at Cheltenham Gardens Ltd think the proposed introduction of compulsory Saturday working will affect their working lives?
- 31 You need to undertake a face-to-face interview survey of managing directors of small to medium-sized organizations. From the data you collect you need to be able to generalize

about the attitude of such managing directors to recent changes in government policy towards these firms. Your generalizations need to be accurate to within plus or minus 5 per cent. Unfortunately, you have limited resources to pay for interviewers, travelling and other associated costs.

- a) How many managing directors will you need to interview?
 - b) You have been given the choice between cluster and multi-stage sampling. Which technique would you choose for this research? You should give reasons for your choice.
- 32 What should be the size of sample if a simple random sample from a population of 4000 items is to be drawn to estimate the percent defective within 2% of the true value with 95.5% probability? What would be the size of the sample if the population is assumed to be infinite in the given case? (Ans: 197)
- 33 Distinguish between the following:
- a) Statistic and parameter
 - b) Confidence level and significance level
 - c) Point and interval estimate.
- 34 Explain the meaning of the following sampling fundamentals:
- a) Sampling frame
 - b) Sampling error
- 35 State the reasons why sampling is used in the context of research studies.
- 36 Discuss the concept of sampling.
- 37 What is sample frame.
- 38 Differentiate between different sampling techniques
- 39 What is sampling process
- 40 How is systematic sampling different from stratified random sampling?

III Long Answer Type Questions:

- 1 What is the difference between a sample and a census?
- 2 Under what conditions would a sample be preferable to a census? A census preferable to a sample?
- 3 What is a sampling unit? How is it different from the population element? What qualitative factors should be considered in determining the sample size?
- 4 What do you mean by 'Sample Design'? What points should be taken into consideration by a researcher in developing a sample design for this research project.
- 5 Differentiate the probability and non-probability sampling. Explain different probability and non-probability sampling techniques.
- 6 What is the difference between degree of confidence and degree of precision? Suppose the population variation is known, how does one then determine the sample size necessary to estimate a population mean with some desired degree of precision and confidence?

- 7 Distinguish between sampling error and non-sampling error. Why the distinction is important?
- 8 Discuss the various steps involved in the sampling process.
- 9 Why probability sampling is generally preferred in comparison to non-probability sampling? Explain the procedure of selecting a simple random sample.
- 10 What is the least expensive and least time consuming of all sampling techniques? What are the major limitations of this technique?
- 11 What is the relationship between quota sampling and judgmental sampling?
- 12 Describe the stratified sampling. What are the criteria for the selection of stratification variables?
- 13 What are the differences between proportionate and disproportionate stratified sampling?
- 14 Describe cluster sampling procedure. What is the key distinction between cluster sampling and stratified sampling?
- 15 What factors should be considered in choosing between probability and non-probability sampling?
- 16 What strategies are available to adjust for nonresponse?
- 17 Define the appropriate target population and sampling frame in each of the following situations:
- (a) The manufacturer of a new cereal brand wants to conduct in-home product usage tests in Chicago
 - (b) A national chain store wants to determine the shopping behavior of customers who have its store charge card.
- 18 Visit the Survey Site Website ([www. Surveysite.com](http://www.Surveysite.com)). Examine the internet surveys being conducted. Write a report about the sampling plans being used.
- 19 What type of a sample would you recommend for the following projects:
- (a) A study of purchasing habits of buyers of carpets;
 - (b) A study of brand loyalty in the cosmetic market;
 - (c) An estimate of distribution by income-class of household expenditure for recreational goods and services?
- Give reasons for your choice in each case.
- 20 What do you understand by random sampling? How a random sample is selected? Is a random sampling always better than other forms of sampling in the context of socio-economic survey?
- 21 Identify the relevant population for the following foci, and suggest the appropriate sampling design to investigate the issue, explaining why they are appropriate. Whether necessary, identify the population frame as well.
- (a) A gun manufacturing firm would like to know the types of guns possessed by various age groups in Washington, D.C
 - (b) A hospital administrator wants to find out if the single parents working in the hospital have a higher rate of absenteeism than parents who are not single.

- (c) A researcher would like to assess the extent of pilferage in the materials storage warehouses of manufacturing firms on the east coast.
 - (d) The director of human resources wants to investigate the relationship between drug abuse and dysfunctional behavior of blue collar workers in a particular plant.
- 22 (a) Explain what precision and confidence are and how they influence by sample size.
- (b) Discuss what meant by the statement: there is a trade off between precision and confidence under certain conditions.
- 23 Use of a sample of 5000 is not necessarily better than one of 500. How would you react to this statement?
- 24 Overgeneralizations give rise to much confusion and other problems for researchers who try to replicate the findings. Explain what is meant by this.
- 25 Double sampling is probably the least used of all sampling designs in organizational research. Do you agree? Provide reasons for your answer.
- 26 A magazine article suggested that “consumers 35 to 44 will soon will be the nation’s biggest spenders, so advertisers must learn how to appeal to this over-the-thrill crowd.” If this suggestion appeals to an apparel manufacturer, what should the sampling design be to assess the tastes of this group?
- 27 What kind of biases do you think could be minimized or avoided during the data analysis stage of research?
- 28 When we collect data on the effects of treatment in experimental designs, which statistical test would be most appropriate to test the treatment effects?
- 29 A tax consultant wonders whether he should be more selective about the class of clients he serves so as to maximize his income. He usually deals with four categories of clients: the very rich, rich, upper middle class, and middle class. He has records of each and every client served, the taxes paid by them, and how much he has charged them. Since many particulars in respect of the clients vary (numbers of dependents, business deductibles etc.), irrespective of the category they belong to, he would like an appropriate analysis to be done to see which along the four categories of clientele he should choose to continue to serve in the future. What king of analysis should be done in the above case and why?
- 30 What are the major considerations in choosing a suitable diagram for data representation? Discuss.
- 31 Define data analysis. Explain the process and importance of tabulation, codification and interpretation of data.
- 32 List out some ethical issues in business research, which companies/individual doing research must grapple with.
- 33 What is right to privacy? Why is it relevant to business research?
- 34 Processing of data implies editing, coding, classification and tabulation. Describe these four operations pointing out the significance of each in context of research study.
- 35 Discuss any four sampling techniques with their relative merits and drawbacks.

- 36 Describe different types of sampling techniques and differentiate between the probability and Non-probability sampling techniques
- 37 Briefly explain the process of sample design for the business research. Illustrate with the help of a suitable example.
- 38 What is the significance of sample selection in research? Explain the factors which should be considered while selecting a sample for research?
- 39 Explain the meaning and significance of the concept of standard error in sampling analysis.
- 40 Describe briefly the commonly used sampling distributions.
- 41 Describe various ethical issues in research.
- 42 What do you mean by 'Sample Design'? What point should be taken into consideration by a researcher in developing a sample design for a research project.
- 43 What are the major considerations in choosing a suitable diagram for data representation? Discuss.
- 44 Discuss various types of univariate & multivariate statistical techniques.
- 45 Discuss the steps involved in testing hypothesis.

UNIT - IV

I Test Your Skills:

(a) Multiple Choice Questions:

- 1 Which ONE of the following indicates how 'accurate' results from sample surveys may be?
 - (a) Correlation tests
 - (b) Significance tests
 - (c) Regression tests
 - (d) In-home tests
- 2 With whom are the terms 'hole counts, top-line results, punching and dirty data' associated?
 - (a) Galton (1822-1911)
 - (b) Pearson (1857-1936)
 - (c) Hollerith (1860-1929)
 - (d) Booth (1840-1916)
- 3 The researcher limits any comments to the facts discovered through the study.' To which ONE of the following does this refer?
 - (a) Interpretation
 - (b) Analysis
 - (c) Coding

- (d) Clustering
- 4 Which ONE of these techniques is most likely to be used in qualitative analysis?
- (a) ANOVA
 - (b) Discriminant analysis
 - (c) CHAID
 - (d) NVIVO
- 5 Which ONE of these types of information is NOT usually made available in transcripts?
- (a) Words as spoken
 - (b) Emotions
 - (c) Questions asked
 - (d) Answers given
- 6 Which ONE of these techniques is most likely to be used in quantitative analysis?
- (a) Multivariate analysis
 - (b) Sound-tape recordings
 - (c) Transcripts
 - (d) Videos
- 7 Demographics are also known as:
- (a) Classifiers.
 - (b) Social class.
 - (c) Socio-economic groupings.
 - (d) Something other than the options given.
- 8 Consider the difference between standard demographics and non-standard demographics. Standard demographics are:
- (a) Quantitative, while non-standard are qualitative.
 - (b) Secondary data, while non-standard are primary data.
 - (c) Used in the UK, while non-standard are used in the USA.
 - (d) Well established, while non-standard are specific to the study.
- 9 Which ONE of the following is NOT likely to account for variations in quantitative results?
- (a) Sampling error
 - (b) Transcript error
 - (c) Social desirability bias
 - (d) Acquiescence response bias
- 10 The chi-square test is:

- (a) A mean
 - (b) A multi-question test.
 - (c) A statistical mistake.
 - (d) A statistica
- 11 When did members of the Royal Statistical Society devise bar charts, scatter plots, line plots, pie charts and coxcombs?
- (a) 1600s
 - (b) 1700s
 - (c) 1800s
 - (d) 1900s
- 12 'Reports can be available to multiple users simultaneously and instantly.' To which ONE of the following channels does this best apply?
- (a) Motorbike couriers
 - (b) The Internet
 - (c) Fax machines
 - (d) Postal services
- 13 The most undesirable outcome of poor reporting is:
- (a) A decision to go ahead
 - (b) A decision not to proceed
 - (c) Indecision
 - (d) Good decisions
- 14 Which section of a report is intended to be self-contained and to highlight the key aspects of the entire project?
- (a) Appendices
 - (b) Executive summary
 - (c) Method
 - (d) Research costs
- 15 In a marketplace with twenty competitors, what is the best number of segments to use in a pie chart showing market share?
- (a) Five
 - (b) Ten
 - (c) Fifteen
 - (d) Twenty

- 16 For market research, which ONE of the following should appear alongside each visual display used?
- (a) The client turnover
 - (b) The main respondent name
 - (c) The research agency name
 - (d) The sample size
- 17 Eye contact with an audience can be kept if:
- (a) You read from a page.
 - (b) You face the screen.
 - (c) You face the audience.
 - (d) You have a structure.
- 18 There are different levels at which a report can be written. One level is that at which the researcher is almost acting as a decision-making partner to combine results with other facts and intuition. Which ONE of the following describes that level?
- (a) Reportage
 - (b) Interpretation
 - (c) Speculating
 - (d) Summarising
- 19 The following table on age profiles was extracted from a report. What is wrong with it?

Age	%
25 or under	6
26-36	20
36-46	29
46-56	8
56+	17

- (a) No pie chart
 - (b) Ranges not mutually exclusive
 - (c) Percentages do not add up
 - (d) Something other than the options given
- 20 Which ONE of the following is the biggest disadvantage of PowerPoint?
- (a) High cost
 - (b) Images overused
 - (c) Slow
 - (d) Difficult to use

21. Testing the probability of a relationship between variables occurring by chance alone if there really was no difference in the population from which that sample was drawn is known as _____
- (a) Correlation coefficients.
 - (b) Multiple regression analysis.
 - (c) Chi-squared tests.
 - (d) Significance testing.
22. ANOVA is _____
- (a) A government body which collects social statistics.
 - (b) The name of a statistical software package.
 - (c) A one-way analysis of variance.
 - (d) A two-way analysis of variance.
23. A correlation coefficient enables you to _____
- (a) Quantify the strength of the linear relationship between two ranked or quantifiable variables.
 - (b) Establish whether the data is telling you what you think it should tell you.
 - (c) Measure the difference between two variables.
 - (d) Assess whether two variables measure the same phenomenon.
24. The coefficient of determination (sometimes known as the regression coefficient) enables you to _____
- (a) Measure the difference between two variables.
 - (b) Establish whether the data is telling you what you think it should tell you.
 - (c) Assess the strength of relationship between a quantifiable dependent variable and one or more quantifiable independent variables.
 - (d) Assess whether two variables measure the same phenomenon.
25. _____ is a type of graph
- (a) Pie.
 - (b) Scatter.
 - (c) Box.
 - (d) Bar.
26. _____ of the following indicates how 'accurate' results from sample surveys may be
- (a) Correlation tests
 - (b) Significance tests

- (c) Regression tests
 - (d) In-home tests
27. The researcher limits any comments to the facts discovered through the study.' To which ONE of the following does this refer?
- (a) Interpretation
 - (b) Analysis
 - (c) Coding
 - (d) Clustering
28. Which ONE of these techniques is most likely to be used in qualitative analysis?
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29. _____ is NOT usually made available in _____ transcripts
- (a) Words as spoken
 - (b) Emotions
 - (c) Questions asked
 - (d) Answers given
30. _____ techniques is most likely to be used in quantitative analysis
- (a) Multivariate analysis
 - (b) Sound-tape recordings
 - (c) Transcripts
 - (d) Videos
31. Quantitative data refers to
- (a) statistical analysis.
 - (b) any data you present in your report.
 - (c) numerical data that could usefully be quantified to help you answer your research question(s) and to meet your objectives.
 - (d) graphs and tables.
32. Which of these is not one of the four main reasons for missing data?
- (a) The respondent may have missed a question by mistake.
 - (b) The respondent did not know the answer or did not have an opinion.
 - (c) The analyst ignored its presence on the data form.
 - (d) The data was not required from the respondent, perhaps because of a skip

generated by a filter question in a survey.

33. Computers are essential for quantitative data analysis because:
- (a) they enable easy calculation for those of us not too good with figures.
 - (b) they are so powerful.
 - (c) increasingly data analysis software contain algorithms that check the data for obvious errors as it is entered.
 - (d) they are fun to use.
34. Testing the probability of a relationship between variables occurring by chance alone if there really was no difference in the population from which that sample was drawn is known as:
- (a) Correlation coefficients.
 - (b) Multiple regression analysis.
 - (c) Chi-squared tests.
 - (d) Significance testing.
35. A pictogram is:
- (a) a way of measuring the impact of data presentation techniques.
 - (b) a photograph.
 - (c) a line drawing.
 - (d) an illustration where each bar is replaced by a picture or series of pictures chosen to represent the data.
36. A pie chart is:
- (a) a chart demonstrating the increasing incidence of obesity in society.
 - (b) any form of pictorial representation of data.
 - (c) only used in catering management research.
 - (d) an illustration where the data are divided into proportional segments according to the share each has of the total value of the data.
37. Which one of these is not a way of measuring central tendency?
- (a) Measuring the value that occurs most frequently (mode).
 - (b) Measuring the value, often known as the average, that includes all data values in its calculation (mean).
 - (c) Regression analysis.
 - (d) Measuring the middle value or mid-point after the data have been ranked (median).
38. Standard deviation is:
- (a) a way of measuring the extent of spread of quantifiable data.
 - (b) a way of describing those phenomena that are not the norm.
 - (c) inappropriate in management and business research.

- (d) a way of illustrating crime statistics.
39. Parametric and non-parametric are:
- (a) terms used in medical practice.
 - (b) two main groups of statistical significance tests.
 - (c) alternatives to standard deviation tests.
 - (d) general tests of statistical relevance.
40. The way in which this significance is tested using both non parametric and parametric statistics can be thought of as answering one from a series of questions. Which one of the questions below is the odd one out?
- (a) Does it look statistically significant on the face of it?
 - (b) What is the strength of the relationship, and is it statistically significant?
 - (c) Are the differences statistically significant?
 - (d) Are the predicted values statistically significant?
41. The correlation between saving and expenditure is
- (a) Positive
 - (b) Negative
 - (c) Perfect
 - (d) They are not correlated
42. When interpreting a correlation coefficient expressing the relationship between two variables, it is very important to avoid_____
- (a) Checking the strength of relationship
 - (b) Jumping to the conclusions of causality
 - (c) Checking the direction of the relationship
 - (d) Expressing a relationship with a correlation coefficient
43. A researcher studies achievement by children in poorly funded elementary schools. She develops a model that posits parent involvement as an important variable. She believes that parent involvement has an impact on children by increasing their motivation to do school work. Thus, in her model, greater parent involvement leads to higher student motivation, which in turn creates
- (a) Manipulated variable
 - (b) Extraneous variable
 - (c) Confounding variable
 - (d) Mediating or intervening variable
44. The strongest evidence for causality comes from which of the following research methods?
- (a) Experimental
 - (b) Causal-comparative
 - (c) Correlational

- (d) Ethnography
45. Which correlation is the strongest?
- (a) +.10
 - (b) -.95
 - (c) +.90
 - (d) -1.00
46. The correlation between intelligence test scores and grades is:
- (a) Positive
 - (b) Negative
 - (c) Perfect
 - (d) They are not correlated
47. Which of the following symbols represents a population parameter?
- (a) SD
 - (b) σ
 - (c) r
 - (d) 0
48. If you drew all possible samples from some population, calculated the mean for each of the samples, and constructed a line graph (showing the shape of the distribution) based on all of those means, what would you have?
- (a) A population distribution
 - (b) A sample distribution
 - (c) A sampling distribution
 - (d) A parameter distribution
49. What does it mean when you calculate a 95% confidence interval?
- (a) The process you used will capture the true parameter 95% of the time in the long run
 - (b) You can be “95% confident” that your interval will include the population parameter
 - (c) You can be “5% confident” that your interval will not include the population parameter
 - (d) All of the above statements are true
50. What would happen (other things equal) to a confidence interval if you calculated a 99 percent confidence interval rather than a 95 percent confidence interval?
- (a) It will be narrower
 - (b) It will not change

- (c) The sample size will increase
 - (d) It will become wider
51. Good research reports will always:
- (a) focus on the Harvard style.
 - (b) provide results that may be irrelevant.
 - (c) focus on addressing the research objectives.
 - (d) provide respondent names and addresses.
52. The report writer should always remember that people have expectations about what information they will find and where it will be. It is unusual for final reports to have a section with:
- (a) research costs.
 - (b) executive summary.
 - (c) appendices.
 - (d) method.
 - (e) recommendation.
53. Which report section is intended to describe the purpose with a full statement of the research question?
- (a) Appendices.
 - (b) Results.
 - (c) Method.
 - (d) Objectives.
54. Which of these would NOT help your confidence in the context of a presentation?
Good preparation.
- (a) Comfort with the situation.
 - (b) Presentation software.
 - (c) Looking good.
55. The method section for _____ includes detailed information on the sampling frame; sample size; variables selected for measurement; questionnaire, sampling procedure; response rates.
- (a) a quantitative study
 - (b) a desk research study
 - (c) a qualitative study
 - (d) all of the above
 - (e) none of the above

56. The results section is where you present the findings in a readable format. In a qualitative report it is likely that you will always use:
- (a) words.
 - (b) graphs.
 - (c) tables.
 - (d) pie charts.
57. Recommendations should be based on:
- (a) findings.
 - (b) assumptions.
58. Which of these is bad practice for a report?
- (a) To have a contents page or another form of indexing.
 - (b) To use a title that is short and to the point.
 - (c) To include names of all respondents with contact details.
 - (d) To state fieldwork dates and sample sizes.
59. Which ONE of these phrases is best avoided in a report?
- (a) Typical behaviour.
 - (b) Frequently occurring.
 - (c) Normal respondent.
 - (d) Average consumption.
60. Which ONE of these is best avoided in a report?
- (a) Political correctness.
 - (b) Conclusions.
 - (c) Idiomatic phrases.
 - (d) Transcribed fragments.
61. Hypotheses in qualitative research studies usually _____.
- (a) Are very specific and stated prior to beginning the study
 - (b) Are often generated as the data are collected, interpreted, and analyzed
 - (c) Are never used
 - (d) Are always stated after the research study has been completed
62. Citation means that a particular paper has been:
- (a) reproduced elsewhere.
 - (b) quoted in another paper by another author.
 - (c) sold to another publisher.
 - (d) discussed orally by another author

63. Which of the following is not a form of measurement validity?
- (a) Concurrent validity
 - (b) Face validity
 - (c) Conductive validity
 - (d) Convergent validity
64. A small scale trial run of a particular component is known as:
- (a) Pilot testing
 - (b) Pre-testing
 - (c) Lab experiments
 - (d) Both A & B
65. The height distribution of a few students in a school is an example of
- (a) Statistic
 - (b) Population
 - (c) Parameter
 - (d) Element
66. Which is the odd one out?
- (a) Codes of Conduct (the MRS, BPS, CIM, CMI).
 - (b) The Data Protection Law.
 - (c) The European Convention on Human Rights.
 - (d) The Freedom of Information Acts.
67. The chi-square test is:
- (a) A mean
 - (b) A multi-question test.
 - (c) A statistical mistake.
 - (d) A statistica
68. In a marketplace with twenty competitors, what is the best number of segments to use in a pie chart showing market share?
- (a) Five
 - (b) Ten
 - (c) Fifteen
 - (d) Twenty
69. The research participants are described in detail in which section of the research plan?
- (a) Introduction

- (b) Method
- (c) Data analysis
- (d) Discussion

70. Research hypotheses are _____.
- (a) Formulated prior to a review of the literature
 - (b) Statements of predicted relationships between variables
 - (c) Stated such that they can be confirmed or refuted
 - (d) b and c

Ans. (1)(b), (2)(c), (3)(b), (4)(d), (5)(b), (6)(a), (7)(a), (8)(d), (9)(b), (10)(d), (11)(c), (12)(b), (13)(c), (14)(b), (15)(a), (16)(d), (17)(c), (18)(c), (19)(b), (20)(b), (21)(d), (22)(c), (23)(a), (24)(c), (25)(d), (26)(b), (27)(b), (28)(d), (29)(b), (30)(a), (31)(c), (32)(c), (33)(c), (34)(d), (35)(d), (36)(d), (37)(c), (38)(a), (39)(b), (40)(a), (41)(d), (42)(b), (43)(d), (44)(b), (45)(d), (46)(a), (47)(b), (48)(b), (49)(d), (50)(d), (51)(c), (52)(a), (53)(d), (54)(b), (55)(c), (56)(c), (57)(b), (58)(c), (59)(c), (60)(c), 61(b), 62(b), 63(a), 64(d), 65(a), 66(a), 67(d), 68(a), 69(b), 70(d).

II Short Answer Type Questions:

- 1 What is probing?
- 2 What is pre-coding?
- 3 What do you mean by parametric technique of analysis?
- 4 What do you mean by non-parametric techniques of analysis?
- 5 What do you mean by Yates' correction?
- 6 What is multi-dimensional scaling?
- 7 What is multicollinearity?
- 8 What is Factor Analysis?
- 9 What is Discriminant Analysis?
- 10 What is Conjoint Analysis?
- 11 What do you mean by cluster analysis?
- 12 How t-test is different from ANOVA?
- 13 What would you cover in introduction of Research Report
- 14 What are the major differences between oral and written report
- 15 Write brief notes on : Technique of writing a Research Report
- 16 What is MANOVA?
- 17 What is standard error of estimate?
- 18 What is meant by prediction accuracy?

- 19 What do you mean by eigen values in factor analysis?
- 20 What is orthogonal rotation
- 21 What is meant by spatial map?
- 22 What is Kolmogrove-Smirnov test
- 23 What is run test?
- 24 What do you mean by centroid?
- 25 What is dandogram?
- 26 Define Type I and Type II errors in relation to hypothesis.
- 27 Explain confidence interval and level of significance.
- 28 Write Short note on two tailed and one tailed test.
- 29 Write Short note on coefficient of determination.
- 30 Differentiate between parametric and non-parametric tests.
- 31 Briefly describe when you would use regression analysis and correlation analysis, using examples to illustrate your answer.
- 32 What is factor analysis? When is this technique suitable to apply?
- 33 Write short notes on any two of the following:
 - a) Writing a Research Report
 - b) Conjoint Analysis
- 34 Write basic assumption of factor analysis.
- 35 Write short note on the following
 - a) Discriminant analysis
 - b) Multi collinearity
- 36 What is a hypothesis? What characteristics it must possess in order to be a good hypothesis research?
- 37 What do you mean by the power of a hypothesis test? How can it be measures?
- 38 What is Chi-square test? Explain it significance in statistical analysis.
- 39 Differentiate between correlation & regression analysis.
- 40 Write a short note on ANOVA.
- 41 What is Factor Analysis.
- 42 What is difference between EFA & CFA.
- 43 Write a short note on conjoint analysis.

III Long Answer Type Questions:

- 1 How can respondent selection problems be controlled?
- 2 What is transcription? What are the various types of cards used for this purpose?
- 3 What is multi-variate analysis? Give examples of any four areas in which this technique can be applied. Name any three important multi-variate techniques used in decision-making and state

- 4 Explain the procedure of testing hypothesis requires a researcher to adopt several steps. Describe in brief all such steps.
- 5 Briefly describe the important parametric tests used in context of testing hypothesis. How such tests differ from non-parametric tests? Explain
- 6 What is the purpose of a report? Briefly describe the structure of a research report.
- 7 Why tabulation is considered essential in a research; study? Give the features of a good table.
- 8 State the major and sub headings of a research report in quantitative research scheme.
- 9 How factor analysis is different from multiple regression and discriminant analysis?
- 10 What is Chi-square test? Explain its significance and statistical procedure.
- 11 What do you mean by the additive property of the technique of the analysis of variance? Explain how this technique is superior in comparison to sampling.
- 12 Give your understanding of non-parametric or distribution free methods explaining their important characteristics.
- 13 What do you mean by multivariate techniques? Explain their significance in context of research studies.
- 14 Write a brief essay on Factor Analysis particularly pointing out its merits and demerits.
- 15 What is the significance of using multiple discriminant analysis? Explain in brief the technical details involved in such a technique.
- 16 Explain the procedure of computing factor analysis in detail.
- 17 What is conjoint analysis? Explain the procedure of using conjoint analysis and also mention its application areas.
- 18 What are some of the uses of cluster analysis in social sciences research? What guidelines are available for deciding on the number of clusters?
- 19 What hypothesis is examined by Barlett's test of sphericity? For what purpose is this test used?
- 20 What is the major difference between principal component analysis and common factor analysis?
- 21 Discuss the similarity and differences between cluster analysis and discriminant analysis.
- 22 Briefly define the following terms: dendogram, icicle plot, agglomeration schedule, and cluster membership.
- 23 Identify two marketing research problems where MDS could be applied. Explain how you would apply MDS in these situations.
- 24 Describe the direct and derived approaches to obtaining MDS input data.
- 25 Describe a commonly used format for writing marketing research report.
- 26 Why is the limitations and caveats section included in the report?
- 27 The following passage is taken from a marketing research report prepared for a group of printers and lithographers without much formal education who run a small family owned business:

To measure the image of the printing industry, two different scaling techniques were employed. The first was a series of semantic differential scales. The second consisted of a set of Likert scales. The use of two different techniques for measurement could be justified based on the need to assess the convergent validity of the findings. Data obtained using both these techniques were treated as interval scaled. Pearson product moment correlations were computed between the sets of ratings. The resulting correlations were high, indicating a high level of convergent validity.

Rewrite this paragraph so that it is suitable for inclusion in the report.

- 28 Explain the various steps involved in the test of hypothesis exercise.
- 29 Explain the following concepts:
- a) Null and alternative hypothesis.
 - b) One and two tailed test.
 - c) Power of test.
 - d) Descriptive and relational hypothesis
- 30 Distinguish between parametric and non parametric tests. Describe the general procedure for conducting t-test?
- 31 What steps are involved in writing a research report? Explain the relevance of each?
- 32 Why do we describe qualitative analysis as an 'interactive process'? What types of data will you need to retain and file while you are undertaking qualitative research?
- 33 Processing of data involves editing, coding, classifying and tabulating. Explain each of these steps by taking an appropriate research example.
- 34 What is the basic purpose of factor analysis? Explain the conditions that are required to be satisfied before carrying out a factor analysis exercise.
- 35 What should be ideal structure of a research report? What are the elements of the structure defined by you?
- 36 Explain the meaning of analysis of variance. Describe briefly the technique of analysis of variance for one way classification.
- 37 Explain non-parametric or distribution free methods explain their important characteristics.
- 38 Elaborate various statistical test under parametric & non-parametric test.
- 39 What is the significance of using multiple discriminant analysis? Explain in brief the technical details involved in such a technique.
- 40 What hypothesis is examined by Barlett's test of sphericity? For what purpose is this test used?
- 41 What is Run Test? Explain its significance and statistical procedure.
- 42 Discuss degree of correlation. Relationship coffecient of correlation & regression.

QUESTION BANK

OPERATIONS MANAGEMENT - MS 110

MBA II

QUESTION BANK
OPERATIONS MANAGEMENT – MS 110
MBA II

UNIT - I

I Test Your Skills:

(a) State Whether the Following Statements are True or False:

- 1 Revenue management is one of the trends of operations management.
- 2 Process analysis and improvement includes cost & time reduction, productivity improvement, process yield improvement.
- 3 Lead time is the time between ordering a good or service & reaching it.
- 4 A model is an abstraction of reality, a simplified representation of something.
- 5 Efficiency means doing the right things to create the most value for the company.
- 6 Operations and supply chain management is defined as the design operation and improvement of the systems that create and deliver the firms primary products and services
- 7 The term value refers to the relationship between quality and the price paid &y the consumer

Ans. (1)(T), (2)(T), (3)(T), (4)(T), (5)(T), (6)(T), (7)(T)

(b) Fill in the Blanks:

- 1 The ability of an organization to respond quickly to demands or opportunities _____.
- 2 _____a process for reducing cost, improving quality and increasing customer satisfaction.
- 3 _____obtaining a product or service from outside the organization.
- 4 _____a sequence of activities and organizations involved in producing and delivering a good or service.
- 5 _____that was minimal amounts of resources to produce a high volume of high-quality goods with some variety.
- 6 _____-use of the internet to transact business.
- 7 Theory of constraints was introduced by _____.
- 8 Important trends are _____, working with fewer resources.

Ans. (1)(Agility), (2)(Six Sigma), (3)(Outsourcing), (4)(Supply Chain), (5)(Lean production system), (6)(E-business), (7)Goldratt), (8)(Operations Strategy)

(c) Multiple Choice Questions

1. System performance is measured by
 - (a) Average number of customers being refused service
 - (b) Average time customers wait
 - (c) System utilization
 - (d) b and c.

2. The industrial revolution came into;
 - (a) 1770
 - (b) 1920
 - (c) 1911
 - (d) 1815

3. Which of the following statement correctly explains the role of operations management?
 - (a) Sustain the company's operation
 - (b) Protect the company's operation
 - (c) Project the company's operation
 - (d) All of the above

4. Organizational strategy is different from operations strategy because it is;
 - (a) Prepared by middle managers
 - (b) Narrower in scope
 - (c) Longer in time horizon
 - (d) All of the above

5. Which one of the following strategies specifies how the firm will employ its production capabilities to support its corporate strategy?
 - (a) Tactical
 - (b) Operations
 - (c) Manufacturing
 - (d) Production

6. Which of the following functions of an organization consists of all activities directly related to production of a good or service?
 - (a) Operations
 - (b) Marketing
 - (c) Accounting
 - (d) Finance

7. The role of a ----- manager is to sustain, protect, and project the company's operations side.
- (a) Project Manager
 - (b) Operations Manager
 - (c) Finance Manager
 - (d) Marketing Manager
8. Services differ from manufacturing in all the following ways EXCEPT:
- (a) Customers typically interact directly with the service delivery process
 - (b) Consumption and production take place simultaneously.
 - (c) Services are intangible.
 - (d) Services can be stored
9. Product life cycle is based on which of the following components?
- (a) Place
 - (b) Demand
 - (c) Supply
 - (d) Price
10. A product 'A' is specified to work well up to 30 degree Celsius temperature and 30% humidity. What would these specifications represent?
- (a) Reliability factor
 - (b) Standard conditions
 - (c) Normal operating conditions
 - (d) Standard operating procedure
11. Manufacturability is the ease of fabrication and/or assembly which is important for:
- (a) Cost and Productivity
 - (b) Productivity and Quality
 - (c) Cost and Quality
 - (d) Cost, productivity and Quality
12. Which one of the following refers to using some of the components of old products in the manufacture of new products?
- (a) Remanufacturing
 - (b) Robust design
 - (c) Automation
 - (d) Manufacturability

13. Which of the following ensures that the design meets the performance characteristics that are specified in the product concept?
- (a) Functional design
 - (b) Production design
 - (c) Service design
 - (d) Product design
14. Robustness of a product is _____ related with the probability of failure.
- (a) Directly
 - (b) Inversely
 - (c) Linearly
 - (d) Positively
15. Which one of the following is the most significant disadvantage of standardization?
- (a) Frozen designs
 - (b) Interchangeable parts
 - (c) Reduced variety
 - (d) Customized parts
16. A design that focuses on reducing the number of parts in a product and on assembly methods and sequence is known as:
- (a) Design for manufacturing
 - (b) Design for recycling
 - (c) Design for assembly
 - (d) Design for disassembly
17. DFM stands for:
- (a) Design for Maintenance
 - (b) Design for Manufacturing
 - (c) Design for Management
 - (d) Design for Manpower
18. As the number of components in a series increases, the reliability of the system:
- (a) Increases
 - (b) Decreases
 - (c) Remains the same
 - (d) Becomes zero

19. _____ is the bringing together of engineering, design and manufacturing personnel together early in the design phase.
- (a) Robust design
 - (b) Concurrent engineering
 - (c) Canabalization
 - (d) Design for Manufacturing (DFM)
20. DFA stands for:
- (a) Design for Assurance
 - (b) Design for Accuracy
 - (c) Design for Authenticity
 - (d) Design for Assembly
21. The situation in which a product, part or system does not perform as intended is referred to as:
- (a) Reliability
 - (b) Durability
 - (c) Failure
 - (d) Maturity
22. _____ refers to a manufacturer being liable for an injury or damage caused by a faulty product.
- (a) Product liability
 - (b) Manufacturer's liability
 - (c) Organizational liability
 - (d) All of the given options
23. All of the following are the primary reasons for design process except:
- (a) Economic
 - (b) Social and demographic
 - (c) Political, liability, or legal
 - (d) Personal
24. The frequency of capacity choice decisions is influenced by all of the following factors EXCEPT:
- (a) Stability of demand
 - (b) Technological changes
 - (c) Competitive forces
 - (d) Cost factor

25. Which of the following functions is not a core function of an organisation?
- (a) The marketing (including sales) function
 - (b) The accounting and finance function
 - (c) The product/service development function
 - (d) The operations function
26. Most operations produce a mixture of both products and services. Which of the following businesses is closest to producing “pure” services?
- (a) A Restaurant
 - (b) Counsellor/therapist
 - (c) Steel company
 - (d) IT company
27. Operations can be classified according to their volume and variety of production as well as the degree of variation and visibility. Which of the following operations would be classified as high volume, low variety?
- (a) A carpenter
 - (b) A front office bank
 - (c) A fast food restaurant
 - (d) A family doctor
28. Which of the following activities is not a direct responsibility of operations management?
- (a) Planning and controlling the operation
 - (b) Developing an operations strategy for the operation
 - (c) Designing the operation’s products, services and processes
 - (d) Determining the exact mix of products and services that customers will want.
29. Operations can be classified according to the degree of variation in demand and visibility of the operation as well as their volume and variety of production. Which of the following operations would be classified as high variation and high visibility?
- (a) A front office bank
 - (b) A family doctor
 - (c) A carpenter
 - (d) A fast food restaurant
30. Which of the following would not normally be considered a general characteristic of a service?
- (a) Production and consumption are simultaneous
 - (b) Low contact services can often be made more efficient than high contact services

- (c) Many services involve both tangible and intangible outputs
 - (d) Production and sales cannot easily be separated functionally
 - (e) Production and consumption can always be spatially separated.
31. An operations strategy is created directly from the _____ strategy
- (a) Corporate strategy
 - (b) Marketing strategy
 - (c) Business strategy
 - (d) Human resource strategy
32. The operations strategy which refers to service firms distributing their products in many different forms and places is called _____?
- (a) Servitization
 - (b) Globalization
 - (c) Ubiquitization
 - (d) Mass customization
33. Firms try to achieve competitive advantage by competing on _____?
- (a) Cost only
 - (b) Order winners
 - (c) Quality only
 - (d) Order qualifiers
34. Two different viewpoints on operations strategy are the market-driven view and the _____ based view
- (a) Operations
 - (b) Finance
 - (c) Resource
 - (d) Capability
35. Operations Management is a _____ process.
- (a) translation
 - (b) transformation
 - (c) transaction
 - (d) transition
36. Which of these Managers would be least likely to be considered in an operations management role within an organization?
- (a) Production Manager
 - (b) Reservations Manager

- (c) Financial Risk Manager
 - (d) Quality Manager
37. There are 5 basic organizational forms, simple, functional, divisional, conglomerate and _____?
- (a) hybrid
 - (b) complex
 - (c) corporate
 - (d) hierarchical
38. Organizing budget hotels within a chain by geographical location is an example of which type of organizational form?
- (a) Conglomerate
 - (b) Hybrid
 - (c) Simple
 - (d) Divisional
39. Which of these would an operations manager not be responsible for?
- (a) Safety and maintenance
 - (b) Sales and marketing
 - (c) Selecting suppliers
 - (d) Recruiting employees
40. Operations can be diagnosed by volume, variety, variation and _____?
- (a) validity
 - (b) variability
 - (c) value
 - (d) variance
41. The size of the product range or number of services offered is called _____?
- (a) variability
 - (b) validity
 - (c) variety
 - (d) variation
42. The extent to which a product or service may be customized is called _____?
- (a) variability
 - (b) validity
 - (c) variety
 - (d) variation

43. Services differ from manufactured products in four ways. Intangibility, Inseparability, Perishability and _____?
- (a) homogeneity
 - (b) heterogeneity
 - (c) intractability
 - (d) invisibility
44. What is advantage of holding inventory?
- (a) Improved quality
 - (b) Reduced Obsolescence
 - (c) Reduced material handling
 - (d) Greater availability
45. JIT has internal focus; Lean Production begins with external focus on
- (a) logistics
 - (b) Supplier relations
 - (c) Customers
 - (d) Design
46. Which of the following is JIT scheduling tactic?
- (a) Large production
 - (b) Level schedules
 - (c) Use same purchase order
 - (d) Move goods through the plant in large batches, but produce in small batches
47. Prime advantage of JIT scheduling is
- (a) Increased production
 - (b) Reduced space requirement
 - (c) Exposure to problems in production
 - (d) Exposure to problems in distribution
48. Characteristics of JIT scheduling do not include
- (a) Variability
 - (b) Maximum paper work
 - (c) Variety
 - (d) None of the above
49. An effective JIT effort results in increased
- (a) Quality
 - (b) Cost

- (c) Productivity
 - (d) Queue time
50. The components of set up time to produce or build an item are-
- (a) Process preparation time
 - (b) Process tear down time
 - (c) Learning time
 - (d) All above
51. The World Economic Forum has given -----which has based its competitiveness analysis on the Global Competitiveness Index.
- (a) BCI
 - (b) CID
 - (c) GCI
52. GCI captures the -----and ----- foundations of national competitiveness
- (a) microeconomic
 - (b) macroeconomic
 - (c) Both of above
53. Pillar two of Global competitiveness index framework indicates-
- (a) Infrastructure
 - (b) Institution
 - (c) Both of above
54. Pillar four of Global competitiveness index framework indicates-
- (a) Health and primary education
 - (b) Infrastructure
 - (c) Institution
55. The quality of institutions influences -----decisions and the organization of production
- (a) Infrastructure
 - (b) investment
 - (c) Institution
56. Excessive bureaucracy and red tape, overregulation, corruption, dishonesty in dealing with public contracts impose significant economic costs to businesses
- (a) Infrastructure
 - (b) Cost
 - (c) investment

- 57 Well-developed infrastructure reduces the effect of distance between regions by integrating the national market and connecting it at low -----to markets in other countries and regions.
- (a) Infrastructure
 - (b) Cost
 - (c) investment
- 58 A solid and extensive telecommunications network allows for a rapid and free flow of-----
-----.
- (a) Infrastructure
 - (b) investment
 - (c) Information
- 59 The government cannot provide services efficiently if it has to make high-interest payments on its past -- _____ -
- (a) Cost
 - (b) debts
 - (c) investment
- 60 Basic education increases the -----of each individual worker
- (a) Cost
 - (b) debts
 - (c) efficiency
- 61 Process control is an engineering discipline that deals with-----, -----for maintaining the output of a specific process within a desired range.
- (a) architectures
 - (b) mechanisms and algorithms
 - (c) both
62. Benchmark standards can be expressed in ----- terms
- (a) quantitative
 - (b) qualitative
 - (c) both
63. The Quantitative Standards' monitoring in organizations affect their-
- (a) Revenue to be earned.
 - (b) Units to be produced and sold.
 - (c) Cost to be incurred.

- (d) Time to be spent in performing a task.
 - (e) Inventories to be maintained
 - (f) All above
64. Inputs include -----, energy and information.
- (a) human resources
 - (b) capital and material
 - (c) land
 - (d) All above
65. Transformations are the operations that -----inputs into outputs
- (a) convert
 - (b) divert
 - (c) revert
66. Deciding the right method to design the product establishes good -----and efficient way for operations.
- (a) productivity
 - (b) image
 - (c) reflection
67. Product Design combines -----with product and business knowledge to generate ideas and concepts and convert them into physical and usable objects or services
- (a) productivity
 - (b) ergonomics
 - (c) reflection
68. Companies choose various ways to design their products, which include-
- (a) standardization
 - (b) mass customization
 - (c) delayed differentiation
 - (d) modular design,
 - (e) robust design
 - (f) All above
69. -----is the processes of extracting knowledge or design information from anything man-made and reproducing it.
- (a) Advanced engineering
 - (b) Reverse engineering
 - (c) None

- 70 -----is defined as the percentage of orders that can be filled based on the inventory at hand.
- (a) Order fill rate
 - (b) Reverse engineering
 - (c) None

Ans: 1(d), 2(a), 3(d), 4(c), 5(d), 6(a), 7(b), 8(d), 9(b), 10(a), 11(d), 12(a), 13(b),14(b), 15(c), 16(c), 17(b), 18(b), 19(b), 20(d), 21(c), 22(a), 23(d), 24(a), 25(b), 26(b), 27(c), 28(d), 29(b), 30(e), 31(c), 32(c), 33(b), 34(c), 35(b), 36(c), 37(a), 38(d), 39(b), 40(b), 41(c), 42(a), 43(b) 44(d), 45(b), 46(b), 47(b), 48(d), 49(c), 50(d) (41) (c)(42) (c) (43) (a)(44) (a)(45) (b)(46) (b)(47) (b)(48) (c)(49) (b)(50) (c) (51) (c)(52) (c) (53) (a)(54) (a)(55) (b)(56) (b)(57) (b)(58) (c)(59) (b)(60) (c) 61(c), 62(c), 63(f), 64(d), 65(a), 66(a),67(b), 68(f), 69(b), 70(a)

II Short Answer Type Questions:

- 1 Define the term operations management.
- 2 Identify the three major functional areas of organizations and describe how they interrelate.
- 3 Compare and contrast service and manufacturing operations.
- 4 Describe the operations function and the nature of the operations manager's job.
- 5 Differentiate between design and operation of production systems.
- 6 Describe the key aspects of operations management decision making.
- 7 Briefly describe the historical evolution of operations management.
- 8 Identify current trends in business that impact operations management.
- 9 Explain what is meant by the term lean operations system.
- 10 List each of the goals of JIT and explain its importance.
- 11 List and briefly describe the building blocks of JIT.
- 12 List the benefits of the JIT system.
- 13 Outline the considerations important in converting a traditional mode of operations to a JIT system.
- 14 List some of the obstacles that might be encountered when converting to a JIT system.
- 15 List and briefly discuss the primary ways that business organizations compete.
- 16 List five reasons for the poor competitiveness of some companies.
- 17 Define the term strategy and explain why strategy is important for competitiveness.
- 18 Contrast strategy and tactics.
- 19 Discuss and compare organization strategy and operations strategy, and explain why it is important to link the two.
- 20 Describe and give examples of time-based strategies.

- 21 Discuss the application of theory of constraint in manufacturing industry.
- 22 Is it possible to achieve zero inventories? Why or why not?
- 23 Why must lean have a stable schedule?
- 24 What are the roles of suppliers & customers in a lean system?
- 25 What are the implications for cost accounting of lean production?
- 26 What was the industrial revolution? When did it occur?
- 27 To what extent are operations research techniques used in today's business organizations?
- 28 Who are the foremost pioneers in scientific management, and what are their contributions?
- 29 What are the inputs of production system?
- 30 Name two organizations that have no production functions. Defend your answer.
- 31 What are the outputs of production system?
- 32 Study of Operations management enables managers to enhance productivity. Explain
- 33 Discuss briefly three types of productivity.
- 34 Differentiate product and service.
- 35 Briefly explain various components of Job Design.
- 36 Discuss some of the essential steps of controlling process
- 37 Discuss Systems perspective of Operations Management
- 38 Discuss Design issues in Operations Management
- 39 Discuss Measuring Operational Excellence
- 40 Discuss Benefits of sound product development process
- 41 Discuss Reverse Engineering

III Long Answer Type Questions:

- 1 Define the term productivity and explain why it is important to organizations and to countries.
- 2 List some of the reasons for poor productivity and some ways of improving it.
- 3 Discuss the characteristics of lean system.
- 4 Discuss the type of production system.
- 5 Discuss recent trends in operations management.
- 6 What is the relationship of operations management with other functional areas?
- 7 What do you understand by production management? What are the major activities which constitute its scope?
- 8 Define the term production function. Discuss its importance in modern business.
- 9 Define production management and explain its scope. Also mention the responsibilities or duties of production manager.
- 10 What is the function of production manager? Is this function different from the function of Marketing Manager? Explain.
- 11 Define the term decision making? What are the various steps in decision making process?

- 12 Define production. What do you understand by factors of production?
- 13 What do you understand by production management? What are the major activities which constitute its scope?
- 14 Define the term production function. Discuss its importance in modern business.
- 15 What do you understand by Just in Time in detail? How this method is to be used?
- 16 Discuss miniaturization? When it is good? When not good?
- 17 What are the different kinds of production systems? Explain their advantages, limitations and suitability. Provide suitable examples.
- 18 What are the important trends seen in operations management in recent years? How has this change affected the role of an operations manager in an organization?
- 19 Define production system. Name the inputs to the production system. State the importance of a sub-system.
- 20 What factors account for resurgence of interest in Operations Management today? Elaborate.
- 21 Stopping waste is a vital part of lean. Discuss ways to use lean to improve one of the following- a pizza restaurant, a hospital, or an auto dealership.
- 22 Describe the different stages in evolution of operations management
- 23 Explain the relationship operations Management has with other functional areas
- 24 Discuss "System Perspective of operations management"
- 25 Discuss current issues/ Challenges facing Operations management
- 26 Describe the primary inputs, outputs and conversion subsystem of the following organizations: (a) Dry cleaning business (b) factory making computers (c) medical clinic (d) fire station and (e) public employment office.
- 27 Define strategic decision. Give an example of a strategic decision for: (a) a retailer (b) manufacturer and (c) a government agency.
- 28 Discuss briefly the contributions of operation managers to the field of operations management.
- 29 What is Quality Function Deployment? Explain the basic steps involved in building the house of quality.
- 30 Discuss various steps in building the House of Quality matrix.
- 31 Comment upon optimizing global supplier, production and distribution networks
- 32 Operations Management discipline is enriched during each era of its evolution by the innovations and contributions of different individuals from diverse fields. Elucidate.
- 33 Discuss Theory of Constraints and explain its relevance in capacity management with focus on principles of bottleneck management.
- 34 As a manager of a floor shop, Mr. Alex is of the view that the operators working in his shop floor are idle 25% of the time. He intends to measure the same using work sampling method. What is the appropriate work sample that is accurate within $\pm 3\%$ and enables him to have 95.45% confidence level? Assume Z value for confidence level as 2.

In case Mr. Alex finds that his initial estimate is 5% higher than the observation recorded during the study, should he revise his work sample? If yes what should the revised work sample be?

35. Explain the features of process strategies with focus on (a) Product (b) Process (c) Repetitive (d) mass customization. Do you think that they have any relationship with volume and variety considerations? If so give schematic representation of such relationship with specific examples.
36. Setting up a process control system involves step wise approach where a set of decisions are taken. Discuss in detail various steps and issues for decisions during each step
37. Operations Managers often confront ever changing and dynamic issues related to technology, global supply chains, sustainability, etc. Analyze the statement referring to specific examples from real life experiences.
38. The process of formulating an appropriate operations strategy involve a sequential and structured set of activities. Elucidate with the help of a schematic diagram.
39. Explain the concepts of (i) Modular design and (ii) product platform and discuss their relevance for mass customization.

UNIT - II

I Test Your Skills:

(a) State Whether the Following Statements are True or False:

- 1 Group technology is the grouping into part families of items with similar design or manufacturing characteristics.
- 2 Flexible manufacturing systems is a group of machines designed to handle intermitted processing requirements and produce a variety of similar products.
- 3 Motion study is the systematic study of the human motions used to perform or service.
- 4 Motion study principles are the guidelines for designing motion-efficient work procedures.

Ans. (1)(T), (2)(T), (3)(F), (4)(T)

(b) Fill in the Blanks:

- 1 _____ is the examination of the function of parts and materials in an effort to reduce cost and/or improve product performance.
- 2 Life Cycle includes _____, _____, _____ and _____.
- 3 _____ is the extent to which there is absence of variety in a product, service or process.

- 4 There are five basic process type: _____, _____,
 _____, _____ and _____.
- 5 _____ is layout that uses standardized processing operations to achieve smooth, rapid & high volume flow.
- 6 _____ is a standardized layout arranged according to a fixed sequence of assembly tasks.
- 7 _____ is a layout that can handle varied processing requirements.
- 8 _____ is the layout in which the product or project remains stationery, and workers, materials and equipments are moved as needed.
- 9 _____ in which workstations are grouped into a cell that can process items that have similar processing requirements.
- 10 _____ is a system for linking a broad range of manufacturing activities through an integrating computer system.

Ans. (1)(Value analysis),(2)(incubation, growth, maturity, decline), (3)(standardization), (4)(job shop, batch, repetitive, continuous, project), (5)(product layout), (6)(assembly line), (7)(process layouts), (8).(fixed position layout), (9)(cellular layout), (10)(computer integrated manufacturing)

(c) Multiple Choice Questions

1. The major business functions consisting of research and development, product design, manufacturing, marketing, distribution, and customer service refer to:
 - (a) The transformation process
 - (b) Value chain
 - (c) Life cycle
 - (d) Quality control

2. Which one of the following is the correct order of layout types from low volume/highvariety to high volume/low variety?
 - (a) Fixed position, process, cell, product
 - (b) Fixed position, cell, process, product
 - (c) Fixed position, process, product, cell
 - (d) Process, fixed position, cell, product

3. Which one of the following is a disadvantage of a process layout?
 - (a) A variety of processing requirements
 - (b) Use of individual incentive system
 - (c) Minimizing material handling costs

- (d) Equipment utilization rate is high
4. Which one of the following types of manufacturing layout is considered a hybrid?
- (a) Process layout
 - (b) Product layout
 - (c) Fixed-position layout
 - (d) All of the given options
5. Which one of the following operating levels is best with respect to capacity?
- (a) The maximum point of the cost curve
 - (b) The level of capacity for which average unit cost is minimized
 - (c) The level of capacity for which average unit cost is maximized
 - (d) The level of capacity for which total cost is minimized
6. Which one of the following is focused to reduce the incidence of failures in the plant or equipment to avoid the associated costs?
- (a) Preventive maintenance
 - (b) Predictive maintenance
 - (c) Reactive maintenance
 - (d) Total productive maintenance
7. _____ represents the process of determining short-range capacity requirements.
- (a) Capacity requirements planning
 - (b) Aggregate planning
 - (c) Capacity planning
 - (d) Schedule planning
8. Process layout is used for:
- (a) Repetitive processing
 - (b) Intermittent processing
 - (c) Both (a) and (b)
 - (d) Neither (a) nor (b)
9. The most significant advantage of U-shaped layout is:
- (a) Cost minimization
 - (b) Easy handling of process
 - (c) Increased flexibility in work
 - (d) All of the given options

10. Product layout is preferably used for:
- (a) Repetitive processing
 - (b) Intermittent processing
 - (c) Both (a) and (b)
 - (d) Neither (a) nor (b)
11. The type of operation being carried out by an organization depends upon:
- (a) Degree of standardization
 - (b) Volume of output
 - (c) Demand
 - (d) Both(a) and (b)
12. Repetitive processing results in output that is:
- (a) Highly standardized
 - (b) Highly customized
 - (c) Partially customized
 - (d) None of the given options
13. Job shop and batch processing are differentiated on the basis of:
- (a) Job requirements
 - (b) Degree of standardization
 - (c) Volume of output
 - (d) Both (b) and (c)
14. Automation is preferred because it:
- (a) Offers lesser dependence on workers
 - (b) Results in reduction in variable cost
 - (c) Offers easy handling of repetitive work
 - (d) All of the given options
15. Advantages of Process Layout Include
- (a) Equipment used is less costly
 - (b) Low unit cost.
 - (c) Labor specialization.
 - (d) Low material handling cost
16. Which kind of production system is undertaken by JIT (Just In Time) production?
- (a) Intermittent processing
 - (b) Job shop processing
 - (c) Repetitive processing

- (d) Batch processing
17. In which of the following approaches location decision is based on personal opinions and quantitative information?
- (a) Factor rating
 - (b) Market area plant strategy
 - (c) Currency fluctuations
 - (d) Product plant strategy
18. Which of the following statement defines process re-design?
- (a) It is collecting information, identifying each step and finding inputs and outputs of process
 - (b) It is collecting information about cost reduction and improving the defects
 - (c) It relates to asking questions about process flow and identifying missing or duplicating activities
 - (d) It relates with taking a fresh approach to solve an issue on hand
19. Which of the following statement defines process analysis?
- (a) It is collecting information, identifying each step and finding inputs and outputs of process
 - (b) It is collecting information about cost reduction and improving the defects
 - (c) It relates to asking questions about process flow and identifying missing or duplicating activities
 - (d) It relates with taking a fresh approach to solve an issue on hand
20. Which of the following refers to the inherent variability in a process?
- (a) Control limits
 - (b) Process capability
 - (c) Chance causes of variation
 - (d) Assignable causes of variation
21. Which of the following represents a specified range of values in which individual units of output must fall in order to be acceptable?
- (a) Tolerance
 - (b) Run test
 - (c) Process capability
 - (d) Process variability

22. Which one of the following is an example of site related factors that affect location decision?
- (a) Transportation
 - (b) Quality of life
 - (c) Location of new markets
 - (d) Location of raw materials
23. Process selection is primarily considered during:
- (a) Planning
 - (b) Organizing
 - (c) Leading
 - (d) Controlling
24. The type of operation being carried out by an organization depends upon:
- (a) Degree of standardization
 - (b) Volume of output
 - (c) Demand
 - (d) Both(a) and (b)
25. Which one of the following refers to the length of time needed to complete a job?
- (a) Work sampling methods
 - (b) Work measurement
 - (c) Job design
 - (d) Methods analysis
26. Which one of the following is the goal of work sampling?
- (a) Individual human motions that are used in a job task
 - (b) Determining the length of time it will take to undertake a particular task
 - (c) Determining the amount of time a worker spends on various activities
 - (d) Specifying the content and methods to perform a job
27. The goal of motion study is to achieve:
- (a) Cost minimization
 - (b) Maximum efficiency
 - (c) Profitability
 - (d) All of the given options
28. Regional factors for location planning include all of the following except:
- (a) Raw materials
 - (b) Markets

- (c) Labor considerations
 - (d) Attitudes
29. Transportation method is a _____ approach.
- (a) Quantitative
 - (b) Qualitative
 - (c) Scientific
 - (d) All of the given options
30. Which of the following forecasting technique is used when introducing new products, services, new features and new packaging?
- (a) Quantitative technique
 - (b) Associative model
 - (c) Focus group
 - (d) Judgmental forecast
31. Which method of forecasting is the most widely used? Select correct option:
- (a) Regression analysis
 - (b) Adaptive forecasting
 - (c) Weighted moving average
 - (d) Exponential smoothing
32. The method that uses explanatory variables to predict the future is known as: Select correct option:
- (a) Delphi method
 - (b) Naïve forecast
 - (c) Associative model
 - (d) Judgmental forecast
33. Which of the following influences on the sales of a product is the most difficult to forecast?
- (a) Seasonal
 - (b) Trend
 - (c) Nonlinear trend
 - (d) Cyclical
34. All of the following are examples of Qualitative forecasting except:
- (a) Judgmental
 - (b) Delphi Method
 - (c) Consumer Survey

- (d) Naïve Forecasting
35. Which one of the following is concerned in short term capacity needs?
- (a) Cycle
 - (b) Trends
 - (c) Seasonality
 - (d) Average
36. Which one of the following is a possible disadvantage of a moving average forecast?
- (a) The method is unable to forecast the demand accurately
 - (b) The method is easy to compute and easy to understand
 - (c) All the values in the average are weighted equally
 - (d) The most recent values are given the more weighted
37. Which of following statement is true about effective capacity?
- (a) It is the actual output achieved
 - (b) It is always less then actual output
 - (c) It is the maximum output that a firm can produce
 - (d) It is always less than designed capacity
38. Which one of the following involves completing a series of questionnaires each developed from the previous one, to achieve a consensus forecast?
- (a) Consumer surveys
 - (b) Executive opinion
 - (c) Time series forecast
 - (d) Delphi method
39. Which one of the following is a limitation of a moving average having a trend?
- (a) The forecast lags behind the actual
 - (b) The forecast represents demand more accurately
 - (c) The forecast will not be accurate
 - (d) The forecast will not be reliable
40. Which method of forecasting is most widely used?
- (a) Regression analysis
 - (b) Adaptive forecasting
 - (c) Weighted moving average NOT SURE
 - (d) Exponential smoothing

41. Which one of the following factors makes a forecast LESS perfect?
- (a) Randomness
 - (b) Non serious attitude
 - (c) Non availability of data
 - (d) Un qualified personnel
42. Forecasting for groups tend to be more accurate than forecasting for individual items, because:
- (a) A group is compose of a number of items
 - (b) A group exhibits a uniform behavior
 - (c) Forecasting errors among items in a group have a canceling effect
 - (d) A group behavior is relatively less uncertain
43. Work study is most useful in
- (a) Production activities
 - (b) Supervision
 - (c) None of these
44. What does symbol 'D' implies in a work study?
- (a) Supervision
 - (b) Inspection
 - (c) Delay / Temporary storage
 - (d) Transport
45. What does symbol 'V' implies in a work study?
- (a) Inspection
 - (b) Delay / Temporary storage
 - (c) Transport
 - (d) Permanent storage
46. Material handling in an automobile industry is done by
- (a) Trolley
 - (b) Belt Conveyer
 - (c) Overhead crane
47. What does symbol 'O' implies in a work study?
- (a) Inspection
 - (b) Delay / Temporary storage
 - (c) Transport
 - (d) Operations

48. Work study is done with the help of
- (a) Material handling
 - (b) Process chart
 - (c) Stop watch
 - (d) None of the above
49. Scheduling gives information about-
- (a) When work should start
 - (b) When work should complete
 - (c) When work should start and how much work should be completed during a certain period
50. Job evaluation is a method of determining-
- (a) Relative worth of jobs
 - (b) Skills required of workers
 - (c) Contribution of a worker
51. A crucial -----in any system is called a bottleneck and managers have to work upon it.
- (a) "green"
 - (b) environmentally friendly
 - (c) constraint
52. A bottleneck -----the entire process when the workload is increased..
- (a) slows down
 - (b) build
 - (c) operate
53. -----is all the money that the system has invested in purchasing things which it intends to sell.
- (a) Inventory
 - (b) Infrastructure
 - (c) Institution
54. Inventory can be built up during periods when production capacity----- demand and drawn down in periods when demand exceeds capacity.
- (a) exceeds
 - (b) Infrastructure
 - (c) Institution

- 55 -----is the rate at which the system generates money through sales
- (a) Infrastructure
 - (b) Throughput
 - (c) Institution
- 56 All the money the system spends in order to turn inventory into throughput is called -----
- (a) prototype
 - (b) Operational expense
 - (c) investment
- 57 An internal constraint is in evidence when the market demands more from the ----- than it can deliver.
- (a) Infrastructure
 - (b) system
 - (c) investment
- 58 An -----exists when the system can produce more than the market will bear.
- (a) Infrastructure
 - (b) investment
 - (c) external constraint
- 59 Capacity Planning is the process of determining the----- needed by an organization to meet changing demands for its products.
- (a) Cost
 - (b) production capacity
 - (c) investment
- 60 Capacity decisions affect the production lead time, customer responsiveness, operating cost and company -----.
- (a) Cost
 - (b) Debt
 - (c) ability to compete.
- 61 -----is a group of machines designed to handle intermitted processing requirements and produce a variety of similar products.
- (a) Flexible manufacturing systems
 - (b) production capacity

62. An On-time shipment is classified as a shipment that is off the dock and in -----on schedule.
- (a) Infrastructure
 - (b) investment
 - (c) transit
63. Life Cycle includes
- (a) incubation
 - (b) growth
 - (c) maturity
 - (d) decline
 - (e) All above
64. _____is the examination o the function of parts and materials in an effort to reduce cost and/or improve product performance
- (a) Value analysis
 - (b) Associative model
 - (c) Focus group
 - (d) Judgmental forecast
65. Computer integrated manufacturing is a system for linking a broad range of ----- through an integrating computer system.
- (e) manufacturing activities
 - (f) Quantitative technique
 - (g) Associative model
66. _____is a standardized layout arranged according to a fixed sequence of assembly tasks
- (h) Assembly line
 - (i) Quantitative technique
 - (j) Focus group
67. Which of the following forecasting technique is used when introducing new products, services, new features and new packaging?

- (k) Quantitative technique
 - (l) Associative model
 - (m) Focus group
 - (n) Judgmental forecast
- 68 A ----- slows down the entire process when the workload is increased..
- (a) bottleneck
 - (b) Focus group
 - (c) Judgmental forecast
- 69 The Work study method is done with the help of
- (a) Material handling
 - (b) Process chart
 - (c) Stop watch
 - (d) None of the above
- 70 Fixed position layout is the layout in which the product or project remains-----, and workers, materials and equipments are moved as needed.
- (a) Stationery
 - (b) Flexible
 - (c) Movable

Ans: 1(b), 2(d), 3(c), 4(d), 5(b), 6(a), 7(a), 8(c), 9(c), 10(a), 11(d), 12(a), 13(d),14(d), 15(a), 16(c), 17(a), 18(d), 19(c),20(c), 21(a), 22(a), 23(a), 24(d), 25(b), 26(c), 27(b), 28(d), 29(a), 30(d), 31(c), 32(c), 33(a), 34(b), 35(c), 36(c), 37(c), 38(a), 39(a), 40(b), 41(a), 42(b) 43(a), 44(c), 45(d), 46(c), 47(d), 48(c), 49(d), 50(a) (41) (c)(42) (c) (43) (a)(44) (a)(45) (b)(46) (b)(47) (b)(48) (c)(49) (b)(50) (c) (51) (c)(52) (a) (53) (a)(54) (a)(55) (b)(56) (b)(57) (b)(58) (c)(59) (b)(60) (c) 61(a), 62(c), 63(e), 64(a), 65(a), 66(a),67(d), 68(a), 69(c), 70(a)

II Short Answer Type Questions:

- 1 Explain the strategic importance of product and service design.
- 2 List some key reasons for design or redesign.

- 3 Identify the main objectives of product and service design.
- 4 Discuss the importance of standardization.
- 5 Discuss the importance of legal, ethical, and environmental issues in product and service design
- 6 Briefly describe the phases in product design and development.
- 7 Describe some of the main sources of design ideas.
- 8 Name several key issues in manufacturing design.
- 9 Name several key issues in service design.
- 10 Name the phases in service design.
- 11 List the characteristics of well-designed service systems.
- 12 Name some of the challenges of service design
- 13 Explain the importance of work design.
- 14 Briefly describe the two basic approaches to job design.
- 15 Discuss the advantages and disadvantages of specialization.
- 16 Explain the term knowledge-based pay.
- 17 Explain the purpose of methods analysis and describe how methods studies are performed.
- 18 Describe four commonly used techniques for motion study.
- 19 Discuss the impact of working conditions on job design.
- 20 Define a standard time.
- 21 What do you mean by product planning and control?
- 22 What is the scope of Product planning and control?
- 23 Explain in brief the value analysis?
- 24 What are the advantages of work measurement? Discuss.
- 25 What do you mean by scheduling in a Job Shop Production System?
- 26 What factors must be traded off by product development before introducing a new product.
- 27 How does the production volume affect break even analysis?
- 28 What is the difference between SLP & CRAFT ?
- 29 Distinguish between actual time, normal or basic time & standard time.
- 30 What are micro motion study & memo motion study?
- 31 Compare the four basic layout formats on common parameters
- 32 Explain Qualitative methods of Demand forecasting.
- 33 Explain different types of Production Systems (Process Flow Structures)
- 34 Write short note on Design for Manufacture and Assembly
- 35 Write short notes on Value analysis
- 36 Write short notes on Design for Quality.
- 37 Write short notes on Mass Customization
- 38 Briefly explain the concepts of Modular design and Robust design with suitable examples.
- 39 Explain 'tracking signal' and discuss its relevance in forecasting
- 40 Identify and discuss major issues in job design.
- 41 Briefly describe the two basic approaches to job design.

- 42 Study of Operations management enables managers to enhance productivity. Explain.
- 43 Explain the challenges operation managers face in the present era of globalization.
- 44 How are operation managers responsible for corporate reporting?
- 45 What is Bull whip effect? Discuss the causes and remedies of Bull whip effect.
- 46 Discuss Supply chain performance measures
- 47 Discuss Single minute Exchange of Die (SMED) system
- 48 Drum Buffer Rope (DBR) Methodology
- 49 Discuss Sampling plan
- 50 Discuss Deming's Philosophy

III Long Answer Type Questions:

- 1 Describe and compare time study methods and perform calculations.
- 2 Describe work sampling and perform calculations.
- 3 Compare stopwatch time study and work sampling.
- 4 Contrast time and output pay systems
- 5 Discuss the factors which we consider while taking the location decision.
- 6 Discuss the various factors of plant location.
- 7 Describe value analysis, and how is it different from value engineering.
- 8 Explain the factors influencing the design of the production planning and control system?
- 9 What steps are to be taken before considering the development of a new product?
- 10 What do you understand by the terms, "specialization" "standardization" and "simplification" in relation to production management?
- 11 What is meant by design? Explain in brief the factor determining the design of a product?
- 12 What purpose does from design is served?
- 13 Is value analysis is required when and why? Suggest your answer with some industrial example?
- 14 Suggest how value analysis is proved to be a useful exercise in production industry.
- 15 How does value analysis/engineering help organizations to become more efficient? Explain the process involved.
- 16 (a) Explain the factors affecting the plant location.
(b) Why might practicing managers & industrial engineers be skeptical about job enrichment and socio-technical approaches to job design?
- 17 Explain how having more work- in- process inventory can improve the efficiency of a process. How can this be bad?
- 18 How do you determine the idle time percentage from a given assembly line balance?
- 19 Describe the generic product development process. How does the process change for the technology push products?
- 20 Briefly describe the stages in Product Development Process.

- 21 Discuss the “Analytic Delphi Model of Plant Location”.
- 22 Discuss the techniques of Job design (Behavioral considerations).
- 23 Describe the Exponential Smoothing technique of demand Forecasting.
- 24 What are the Priority Rules of Job Sequencing?
- 25 Mass Customization is difficult and challenging, but is the new imperative for operations. Analyse.
- 26 Each of the jobs listed below must be processed through two work stations. The processing time for each job are mentioned below:-

JOB	PROCESSING TIME (IN HOURS)	
	WS 1	WS 2
A	5	2
B	3	6
C	8	4
D	10	7
E	7	12

Sequence the jobs such that the total processing time for the all five jobs is minimized. Also depict the time-phased flow of the sequence graphically.

- 27 Explain the concept of bottleneck and state the techniques to deal with bottlenecks.
- 28 Product decisions are fundamental to an organization’s strategy and have major implications throughout the operations functions. Elucidate.
- 29 What is Clustering? Name the industries in India that exhibit Clustering along with reasons.
- 30 Explain in detail various aggregate planning options and their advantages and disadvantages.
- 31 Explain the fundamental difference between Basic Economic Order Quantity and Production Order Quantity models of inventory management referring to the assumptions under each model.

Given the discount schedule and other data indicated below find the order quantity which minimizes the total inventory cost.

The processing time and due dates of different jobs are given below-

Job	Processing Time in Days	Due Date
A	8	18
B	4	8
C	10	20
D	5	17

E	11	25
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UNIT - III

I Test Your Skills:

(a) Multiple Choice Questions

1. The major business functions consisting of research and development, product design, manufacturing, marketing, distribution, and customer service refer to:
 - (a) The transformation process
 - (b) Value chain
 - (c) Life cycle
 - (d) Quality control

2. Which one of the following designs resists modifications?
 - (a) Frozen design
 - (b) Product design
 - (c) Service design
 - (d) Robust design

3. Which one of the following operating levels is best with respect to capacity?
 - (a) The maximum point of the cost curve
 - (b) The level of capacity for which average unit cost is minimized
 - (c) The level of capacity for which average unit cost is maximized
 - (d) The level of capacity for which total cost is minimized

4. Aggregate planning usually covers time span of how many months?
 - (a) 2 – 12 months
 - (b) 2– 15 months
 - (c) 2 – 16 months
 - (d) 2 – 17 months

5. Which of the following time fences in a Master Production Schedule (MPS) allows many variations in products with multiple changes?
 - (a) Fixed time fence
 - (b) Moderately firm time fence
 - (c) Frozen time fence
 - (d) Flexible time fence

6. Which of the following is known as a visual representation of the requirements in a bill of materials having all the components listed in levels?
 - (a) Master production schedule
 - (b) Material requirements planning
 - (c) Product structure tree
 - (d) Inventory status record

7. Which of the following refers to the quantity expected to be received by the beginning of the period in which it is shown?
 - (a) Gross requirements
 - (b) Net requirements
 - (c) Planned-order receipts
 - (d) Planned-order releases

8. Identify the set of factors that affect the choice of a strategy for aggregate planning.
 - (a) Cost and corporate policy
 - (b) Cost and location analysis
 - (c) Cost and capacity constraints
 - (d) Cost and training of employees

9. MPS stands for which of the following?
 - (a) Material Production Schedule
 - (b) Master Planning Schedule
 - (c) Material Planning Schedule
 - (d) MasterProduction Schedule

10. Master schedule interfaces with all of the following Except:
 - (a) Capacity planning
 - (b) Resource planning
 - (c) Production planning
 - (d) Distribution planning

11. This of the following statements defines the purpose of MRP (Material RequirementsPlanning) system?
 - (a) It is appropriate for all end items in the product line
 - (b) It can be used for independent demand items
 - (c) It reduces inventory requirements, lead times, and delivery times
 - (d) It determines an appropriate master production schedule

12. Which of the following is widely accepted as an effective planning method of all resources of a manufacturing firm?
- (a) Enterprise Resource Planning
 - (b) Material Requirements Planning
 - (c) Material Requirements Planning II[Manufacturing Resource Planning (MRP II)]
 - (d) Master Production Schedule
13. Efficiency, in capacity terms, is the ratio of:
- (a) Actual output of effective capacity
 - (b) Actual output to design capacity
 - (c) Effective capacity to actual output
 - (d) Design capacity to effective capacity
 - (e) Design capacity to actual capacity
14. A difficulty with break even analysis is that :
- (a) It can only work with a group of variable products
 - (b) It is best to use for products that have random variations
 - (c) Plant capacity needs to be flexible
 - (d) Fixed and variable costs must be separated
 - (e) None of the above is correct
15. Which of the following statements is TRUE about Just-in-Time?
- (a) It is essential for a project organization
 - (b) It pushes inventory through the operations process
 - (c) It is only useful in a high product variety environment
 - (d) It seeks to reduce inventory in an effort to reduce waste
16. Big JIT includes all of the following EXCEPT:
- (a) Vendor relations
 - (b) Scheduling materials
 - (c) Human relations
 - (d) Technology management
17. Which of the following reasons accounts for the importance of supply chain? Management?
- (a) Increasing competitive pressures
 - (b) Decreasing globalization
 - (c) Decreasing levels of outsourcing
 - (d) Increasing transportation costs
18. Which of the following is NOT a benefit of supply chain management?

- (a) Less variety
 - (b) Greater agility
 - (c) Lower inventory
 - (d) Higher productivity
19. What would be the total cost of inventory, if a firm holds 200 units of a product 'A', where the carrying cost is Rs. 2 per unit?
- (a) Rs. 202
 - (b) Rs. 100
 - (c) Rs. 198
 - (d) Rs. 400
20. Which of the following mathematical expressions can be employed to compute inventory cost?
- (a) Carrying cost per unit + average inventory cost
 - (b) Carrying cost per unit \times average inventory cost
 - (c) Carrying cost per unit \div average inventory cost
 - (d) Carrying cost per unit – average inventory cost
21. Which of the following is the cost of carrying an item in inventory for a specific period of time?
- (a) Ordering cost
 - (b) Holding cost
 - (c) Shortage cost
 - (d) Stock out cost
22. Which one of the following mathematical expressions can be employed to compute annual carrying cost?
- (a) $(Q-2)H$
 - (b) $(Q+2)H$
 - (c) $(Q\div 2)H$
 - (d) $(Q\times 2)/H$
23. In which of the following systems an item's inventory is stored at two different locations?
- (a) Optional replenishment system
 - (b) Base stock system
 - (c) Two bin system
 - (d) Universal bar code system method

24. Which one of the following is a condition for a successful supply chain?
- (a) A large number of suppliers
 - (b) Many short-term contracts
 - (c) Trust among trading partners
 - (d) Continuous competitive bidding
25. JIT stands for which of the following?
- (a) Just In Time
 - (b) Just In Test
 - (c) Job In Time
 - (d) Job Inventory Time
26. What would be the total cost of inventory, if a firm holds 800 units of a product A , with the carrying cost of Rs. 4 per unit?
- (a) Rs. 796
 - (b) Rs. 804
 - (c) Rs. 3200
 - (d) Rs. 200
27. Which of the following is the cost of carrying an item in inventory for a specific Period of time?
- (a) Ordering cost
 - (b) Holding cost
 - (c) Shortage cost
 - (d) Stock out cost
28. Which one of the following mathematical expressions can be used to compute annual ordering cost?
- (a) $(D+Q)S$
 - (b) $(D/Q)S$
 - (c) $D+Q+S$
 - (d) $(D/S)Q$
29. There is no inventory buildup when:
- (a) Usage rate exceeds production rate
 - (b) Usage and production rates are equal
 - (c) Production rate exceeds usage rate
 - (d) Orders are frequently placed
30. All of the following are common types of inventories Except:

- (a) Raw material
 - (b) Work in transit
 - (c) Work in progress
 - (d) Scrapped work
31. Which one of the following formulae can be used to compute break even point?
- (a) $Q = VC / (R - VC)$
 - (b) $Q = FC / (R - VC)$
 - (c) $Q = VC / (R + FC)$
 - (d) $Q = FC / (R + VC)$
32. What would be the total cost of inventory, if a firm holds 600 units of a product A , where the carrying cost is Rs. 3 per unit?
- (a) Rs. 200
 - (b) Rs. 1800
 - (c) Rs. 597
 - (d) Rs. 603
33. What would be the total backorder cost, if 400 units of a product A are ordered back where the back order cost is Rs. 4 per unit?
- (a) Rs. 100
 - (b) Rs. 396
 - (c) Rs. 404
 - (d) Rs. 1600
34. Lean production involves _____?
- (a) Elimination of cost only
 - (b) Improvement of quality only
 - (c) Improvement of speed only
 - (d) Elimination of all types of waste
35. The Japanese term for waste is _____?
- (a) Muri
 - (b) Kanban
 - (c) Muda
 - (d) Kaizen
36. Which of these is not one of the wastes associated with lean production?
- (a) Revenue
 - (b) Transportation

- (c) Waiting
 - (d) Motion
37. Lean production relies on a specific throughput rate of the whole operation. This is known as _____
- (a) Output time
 - (b) Throughput time
 - (c) Kanban time
 - (d) Takt time
38. Reducing unnecessary motion in operations can significantly improve throughput. Making these improvements is known as _____?
- (a) Eco-motion
 - (b) Ergonomics
 - (c) Economics
 - (d) Empowerment
39. Which of these is not one of the 5 principles of lean production?
- (a) Specify value to the customer
 - (b) Identify the value stream
 - (c) Push goods through to completion
 - (d) Strive for perfection
40. One of the tools of lean production is SMED. What does this stand for?
- (a) Single Minute Engineering Design
 - (b) Single Motion Engineering Design
 - (c) Simple Motion and Exchange of Die
 - (d) Single Minute Exchange of Die
41. Lean production primarily delivers cost and _____ to an operation?
- (a) Flexibility
 - (b) Speed
 - (c) Quality
 - (d) Dependability
42. Agile manufacturing primarily delivers cost and _____ to an operation
- (a) Flexibility
 - (b) Speed
 - (c) Quality
 - (d) Dependability

43. Mass customization uses which of these techniques to deliver its order winners?
- (a) Kanban
 - (b) Efficient Consumer Response
 - (c) Just in Time
 - (d) Modularity
44. According to ABC classification system for inventory management, which of the following groups of items represents high value inventory items?
- (a) Group A
 - (b) Group B
 - (c) Group C
 - (d) Group X
45. All of the following are common types of inventories Except:
- (a) Raw material
 - (b) Work in transit
 - (c) Work in progress
 - (d) Scrapped work
46. The method that considers several variables related to the variable being predicted is:
- (a) Exponential smoothing
 - (b) Weighted moving average
 - (c) Multiple regressions
 - (d) Moving average
47. Group Consensus relates to which of the following judgmental forecasting technique?
- (a) Sales force
 - (b) Consumer surveys
 - (c) Delphi method
 - (d) Executive opinions
48. The total weight assigned to actual occurrences should be equal to:
- (a) 0
 - (b) 1
 - (c) 2
 - (d) 3
49. Which of the following is not the true representation the concept of time series model?
- (a) Exponential smoothing
 - (b) Moving averages

- (c) Naïve approach
 - (d) Linear regression
50. Productivity refers to the ratio of output to input, in your views what are the measures by which productivity can be increased?
- (a) Inputs increase while outputs remain the same
 - (b) Outputs decrease while inputs remain the same
 - (c) Inputs and outputs increase proportionately
 - (d) Inputs decrease while outputs remain the same
51. In a materials processing operation the design capacity is defined as _____?
- (a) the minimum output per given time.
 - (b) the aggregate annual output.
 - (c) the theoretical maximum output in a given time.
 - (d) the most likely output in a given time.
52. In a materials processing operation, the effective capacity of a machine is defined as _____?
- (a) the minimum output per given time.
 - (b) the aggregate annual output.
 - (c) the theoretical maximum output in a given time.
 - (d) the most likely output in a given time.
53. Machine utilization can be calculated by dividing _____ by _____.
- (a) Effective capacity by Design capacity
 - (b) Achieved capacity by Design capacity
 - (c) Achieved capacity by Effective capacity
 - (d) Design capacity by Achieved capacity
54. Machine efficiency is calculated by dividing _____ by _____.
- (a) Effective capacity by Design capacity
 - (b) Achieved capacity by Design capacity
 - (c) Achieved capacity by Effective capacity
 - (d) Design capacity by Achieved capacity
55. What additional factor does Overall Equipment Effectiveness take into account which makes it more meaningful than efficiency or utilization?
- (a) Flexibility
 - (b) Speed
 - (c) Cost
 - (d) Quality

56. The two main approaches to forecasting are _____ and _____
- (a) Qualitative and Quantitative
 - (b) Historical and Quantitative
 - (c) Judgemental and Historical
 - (d) Qualitative and Judgemental
57. Adjusting inputs to an operation so that outputs match demand is known as _____?
- (a) A level capacity strategy
 - (b) A demand management strategy
 - (c) A chase demand strategy
 - (d) A yield management strategy
58. Which of these reasons to keep inventory can lead to improved quality?
- (a) It allows processes to flow more smoothly.
 - (b) It makes deliveries more reliable.
 - (c) It helps to deal with short term demands.
 - (d) It enables the best material to be sorted prior to production.
59. Which of these reasons to keep inventory will improve flexibility?
- (a) It allows processes to flow more smoothly.
 - (b) It makes deliveries more reliable.
 - (c) It helps to deal with short term demands.
 - (d) It enables the best material to be sorted prior to production.
60. Goods in transit can be tracked using RFID technology. RFID stands for?
- (a) Remote File Identification
 - (b) Resource Frequency Identification
 - (c) Radio Frequency Identification
 - (d) Radar Frequency Identification
61. When a customer has queued for a certain period of time and becomes so fed up they leave the queue, this is called:
- (a) Queue discipline
 - (b) Baulking
 - (c) Rejecting
 - (d) Reneging

62. If a customer refuses to join a queue and wait for a service, this is called:
- (a) Baulking
 - (b) Queue discipline
 - (c) Rejecting
 - (d) Reneging
63. When capacity is relatively fixed, services are sold in advance, and the marginal cost of making a sale is relatively low, which of the following capacity plans may be most appropriate?
- (a) Level capacity plan
 - (b) Chase demand plan
 - (c) Mixed plans
 - (d) Yield management
64. When all three 'pure' capacity plans are used in combination, this called a:
- (a) Composite strategy
 - (b) Composite plan
 - (c) Aggregate strategy
 - (d) Mixed plan
65. What type of capacity plan focuses on the demand side rather than supply side of the capacity 'equation'?
- (a) Aggregated capacity plan
 - (b) Demand management
 - (c) Chase demand plan
 - (d) Level capacity plan
66. Utilisation is measured by:
- (a) $\text{Actual output} / \text{Effective capacity}$
 - (b) $\text{Effective capacity} / \text{Design capacity}$
 - (c) $\text{Actual output} / \text{Design capacity}$
 - (d) $\text{Design capacity} / \text{Actual output}$
67. In demand management approaches, the objective of promotions and price reductions is usually to:
- (a) Increase peak demand
 - (b) Increase off-peak demand
 - (c) Reduce off-peak demand
 - (d) Reduce peak demand

68. High process utilisation, high productivity, and low unit costs are associated with which capacity plan?
- Chase demand
 - Demand management
 - Aggregated demand
 - Level capacity
69. Which of the following approaches best illustrates demand management in an artificial ski slope?
- Opening longer hours with the use of floodlights at peak time.
 - Increasing the number of ski instructors at peak time.
 - Increasing the speed of the tow bar in order to cope with more customers per hour.
 - Reduced prices for parties during the summer.
70. For a hospital, which of the following is NOT an output measure of capacity?
- The number of items sold in the hospital shop.
 - The number of patients treated by the A&E department.
 - The number of scans provided.
 - The number of beds available.

Ans: 1(b), 2(a), 3(b), 4(a), 5(d), 6(c), 7(c), 8(c), 9(d), 10(d), 11(c), 12(c), 13(b),14(a), 15(d), 16(c),17(d), 18(d), 19(d), 20(a), 21(b), 22(c), 23(c), 24(c), 25(a), 26(c), 27(b),28(b), 29(b), 30(a), 31(b), 32(b), 33(d), 34(b), 35(d), 36(a), 37(d),38(c), 39(a), 40(d), 41(b), 42(c), 43(d), 44(a), 45(a), 46(c), 47(c), 48(b), 49(d), 50(d), 51(c), 52(d), 53(b), 54(c), 55(d), 56(a), 57(c), 58(d), 59(c), 60(c), 61(d), 62(a), 63(d), 64(d), 65(b), 66(c), 67(b), 68(d), 69(d), 70(d)

II Short Answer Type Questions:

- List the elements of a good forecast.
- Outline the steps in the forecasting process.
- Describe at least three qualitative forecasting techniques and the advantages and disadvantages of each.
- Compare and contrast qualitative and quantitative approaches to forecasting.
- Briefly describe averaging techniques, trend and seasonal techniques, and regression analysis, and solve typical problems.
- Describe two measures of forecast accuracy.
- Describe two ways of evaluating and controlling forecasts.

- 8 Identify the major factors to consider when choosing a forecasting technique.
- 9 Explain the importance of capacity planning.
- 10 Discuss ways of defining and measuring capacity.
- 11 Describe the determinants of effective capacity.
- 12 Discuss the major considerations related to developing capacity alternatives.
- 13 Briefly describe approaches that are useful for evaluating capacity alternatives.
- 14 Describe the conditions under which MRP is most appropriate.
- 15 Describe the inputs, outputs, and nature of MRP processing.
- 16 Explain how requirements in a master production schedule are translated into material requirements for lower-level items.
- 17 Discuss the benefits and requirements of MRP.
- 18 Explain how an MRP system is useful in capacity requirements planning.
- 19 Outline the potential benefits and some of the difficulties users have encountered with MRP.
- 20 Describe MRP II and its benefits.
- 21 Explain the role of PPC in the engineering industry?
- 22 What do you understand by the term Production Planning and Control? Explain briefly the objectives of PPC.
- 23 Write Short note on Just in Time
- 24 List some other names for just-in time manufacturing.
- 25 Why is total quality management(TQM) important in JIT?
- 26 List and explain the components of JIT purchasing.
- 27 Define and describe aggregate planning
- 28 What are various basic capacity options? Explain in brief.
- 29 Prepare a bill of material for standard office table.
- 30 Explain TaiichiOhno's conception of waste.
- 31 Discuss single-period Inventory Model
- 32 Discuss multi period Inventory Systems
- 33 Discuss Purchasing Process
- 34 Explain Duties of Buyers
- 35 Explain Make or Buy Decisions
- 36 Discuss Ethics in Buying
- 37 Briefly explain various components of Job Design.
- 38 As a manager of a floor shop, Mr. Alex is of the view that the operators working in his shop floor are idle 25% of the time. He intends to measure the same using work sampling method. What is the appropriate work sample that is accurate within $\pm 3\%$ and enables him to have 95.45% confidence level? Assume Z value for confidence level as 2. In case Mr. Alex finds that his initial estimate is 5% higher than the observation recorded during the study, should he revise his work sample? If yes what should the revised work sample be?

39. What are the objectives of aggregate planning?
40. Discuss the concept of aggregation.
41. Discuss the various types of capacity.
42. Describe the guidelines for master scheduling.
43. What is master production scheduling?

III Long Answer Type Questions:

- 1 Explain what aggregate planning is and how it is useful.
- 2 Identify the variables decision makers have to work with in aggregate planning and some of the possible strategies they can use.
- 3 Describe some of the graphical and quantitative techniques planners use.
- 4 Prepare aggregate plans and compute their costs.
- 5 Define the term inventory and list the major reasons for holding inventories.
- 6 List the main requirements for effective inventory management.
- 7 Discuss periodic and perpetual review systems.
- 8 Discuss the objectives of inventory management.
- 9 Describe the A-B-C approach and explain how it is useful.
- 10 Describe the basic EOQ model and its assumptions and solve typical problems.
- 11 Define PPC and why PPC has gained importance and recognition in a manufacturing organization.
- 12 “Supply Chain Management is logistics taken to higher level of sophistication”.
- 13 Why is aggregate planning in produce to order firms difficult? What can operations managers do to overcome these difficulties?
- 14 What is a master production schedule? What inputs are needed? Describe the process of preparing a master production schedule/
- 15 Give three reasons why aggregate planning in services is difficult. What can operations managers do to overcome these difficulties?
- 16 Explain the differences in master production scheduling between produce to stock and produce to order firms.
- 17 Name and describe four types of production planning and control systems.
- 18 Summarize what word class companies do in their production planning and control systems.
- 19 List the activities included in logistics within in a factory.
- 20 Define these terms: warehousing, raw materials inventory, stock requisition, in process inventory, stock record and stock keeping unit.
- 21 What is the mission of purchasing? What factors are making purchasing more important today? Explain in what activities purchasing engages.

- 22 Compare and contrast the philosophy of traditional and JIT manufacturing. What are their objectives? How do they achieve them?
- 23 Explain the roles of people in JIT. What is the meaning of empowerment of workers in JIT?
- 24 Explain the difficulty of identifying the reasons for the successes of companies that use JIT manufacturing.
- 25 List and explain the benefits of JIT manufacturing.
- 26 Discuss the relationship between JIT and Quality.
- 27 Briefly explain Level Scheduling in operations management.
- 28 Briefly explain Kanban Control System in operations management.
- 29 Explain the features of process strategies with focus on (a) Product (b) Process (c) Repetitive (d) mass customization. Do you think that they have any relationship with volume and variety considerations? If so give schematic representation of such relationship with specific examples.
- 30 (a) From the data given below find:
- Whether the graphical representation of data suggest linear relationship between television shows performed by popular group during previous month and demand for guitars during the month.
 - Forecasting equation using least squares method.
 - Estimate the guitar sales if the number of performances during previous month are 10.
 - Correlation coefficient (r) and coefficient of determination (r^2) for the model and interpret the result.

Demand for Guitars	Feb	March	April	May	June	July
	3	6	7	5	10	7
No. of Performance by Popular Group	Jan	Feb	March	April	May	June
	3	4	7	6	8	5

31. Define “capacity planning”. How is it different from “capacity requirement planning”?
32. Describe the capacity requirement planning process with a flow chart.
33. Explain the various techniques of inventory control.
34. What are the effects of low stock and high stock holding?
Define the terms: safety stock, reserve stock, and buffer stock with the help of a diagram and explain the terms minimum stock level, maximum stock level, reorder level and lead time.
35. State the relevance of JIT to TQM.

UNIT – IV

I Test Your Skills:

(a) Multiple Choice Questions

1. Who emphasized quality in terms of inspection and gauging?
 - (a) G.S. Radford
 - (b) W. Shewhart
 - (c) F.W. Taylor
 - (d) W.E. Deming

2. If you go to dine out at McDonalds and you observe a very cool and pleasant atmosphere over there. It depicts which of the following dimensions of quality?
 - (a) Performance
 - (b) Aesthetics
 - (c) Reliability
 - (d) Conformance

3. Which of the following is NOT true about TQM?
 - (a) Focused on worker's activity rather than management
 - (b) Meeting the needs and expectations of customers
 - (c) Inclusion of every person in the organization
 - (d) Covering all the functional areas of the organization

4. Which of the following involves incremental changes within the organization whose cumulative effect is to deliver an increased rate of performance enhancement?
 - (a) Continuous improvement
 - (b) Competitive benchmarking
 - (c) Business process re-engineering
 - (d) Statistical process control

5. Which of the following terms reflects Japanese view of continuous improvement?
 - (a) Kaizen
 - (b) Poka-yoke
 - (c) Six sigma
 - (d) Inspection

6. The well-known Deming wheel is also referred to as:
 - (a) Juran's cycle

- (b) Crosby's cycle
 - (c) Ishikawa's cycle
 - (d) Shewhart's cycle
7. Which of the following refers to the upper limit on the percentage of defects that a customer is willing to accept?
- (a) Acceptable Quality Level (AQL)
 - (b) Lot Tolerance Percent Defective (LTPD)
 - (c) Average Outgoing Quality (AOQ)
 - (d) Average Outgoing Quality Limit (AOQL)
8. Which of the following refers to a card or device that communicates demand for work or materials from the preceding station?
- (a) Kanban
 - (b) Kaizen
 - (c) Inventory file
 - (d) Master schedule
9. Which of the following formula is correct for Kanban system?
- (a) $N=DX(1+T)/C$
 - (b) $N=DC(1+X)/T$
 - (c) $N=DT(1+X)/C$
 - (d) $N=DT(1+C)/X$
10. Which of the following word is the meaning of the term PokaYoke ?
- (a) Mistake proof
 - (b) Low quality
 - (c) Defective
 - (d) Expensive
11. Which of the following refers to the average of accepted lots and rejected lots?
- (a) Acceptable Quality Level (AQL)
 - (b) Lot Tolerance Percent Defective (LTPD)
 - (c) Average Outgoing Quality (AOQ)
 - (d) Average Outgoing Quality Limit (AOQL)
12. In _____ sampling, one random sample is drawn from each batch.
- (a) Single
 - (b) Double
 - (c) Multiple

- (d) None of the given options
13. The goal of Total Quality Management is:
- (a) Customer satisfaction
 - (b) Product differentiation
 - (c) Brand equity
 - (d) Acting globally
14. The most common form of quality control includes:
- (a) Planning
 - (b) Organizing
 - (c) Inspection
 - (d) Directing
15. Fredrick Taylor's concern for quality includes:
- (a) Product inspection
 - (b) Gauging system
 - (c) Statistical control chart
 - (d) Both (a) and (b)
16. Kaoru Ishikawa is famous for:
- (a) Statistical quality control
 - (b) Fish bone diagram
 - (c) Loss function concept
 - (d) All of the given options
17. Poor quality adversely affects:
- (a) Costs
 - (b) Productivity
 - (c) Profitability
 - (d) All of the given options
18. _____ is intended to assess a company's performance In terms of environmental performance:
- (a) ISO 14000
 - (b) ISO 9000
 - (c) Six sigma
 - (d) All of the given options

19. The purpose of ISO 9000 is to:
- (a) Promote quality standards to improve efficiency and productivity
 - (b) Earn high profit
 - (c) Avoid unfavorable outcomes
 - (d) Gain high market share
20. Which one the following formula of function can be used to measure the performance?
- (a) Flexibility + profit + operations
 - (b) Work + profit + value
 - (c) Quality + speed + flexibility
 - (d) Profit + incentives + standards
21. The concept of total quality control, i.e. that quality must be attended to at all stage of the industrial cycle and throughout the organization, is the creation of which of the following pioneers?
- (a) Armand Feigenbaum
 - (b) W Edwards Deming
 - (c) Joseph M Juran
 - (d) Genichi Taguchi
22. The so-called 'Quality Gurus' of total quality management (TQM) do NOT include one of the following:
- (a) W Edwards Deming
 - (b) Joseph M Juran
 - (c) Kaoru Ishikawa
 - (d) Bill Cosby
23. Using Statistical Process Charts (SPC) on a process in control, what is the number of parts that will fall outside ± 3 standard deviations of the mean?
- (a) 63 per million
 - (b) 3 per thousand
 - (c) 45 per thousand
 - (d) 0
24. The various definitions of quality do NOT include:
- (a) The manufacturing-based approach
 - (b) The value-based approach
 - (c) The transcendent approach
 - (d) The minimum specification approach

25. Quality control charts does not need to be investigated when:
- (a) Two consecutive points are near the control limits
 - (b) Suspiciously 'average' behaviour occurs
 - (c) An apparent trend occurs in one direction
 - (d) Four consecutive points appear one side of the centre line
26. If a sample of parts is measured and the average of the sample measurements is in the middle of the tolerance limit, but some parts measure too low and other parts measure too high:
- (a) The process is in control, and no further action need be taken
 - (b) The process is neither capable, nor in control
 - (c) The process is in control but not capable of producing within the established limits
 - (d) The process is in control, with only natural causes of variation
 - (e) The process is out of control
27. The many types of benchmarking do not include:
- (a) Internal benchmarking
 - (b) Competitive benchmarking
 - (c) Purchaser-pays benchmarking
 - (d) Performance benchmarking
28. The principles of the business process re-engineering (BPR) approach do NOT include:
- (a) Scrapping any process line over two years old and starting again from scratch
 - (b) Striving for improvements in performance by radical rethinking and redesigning the process
 - (c) Checking that all internal customers act as their own suppliers to identify problems
 - (d) Rethinking business processes cross-functionally to organize work around natural information flows.
29. Qualifying competitive factors are those which:
- (a) May not win extra business if the operation improves its performance but can certainly lose business if performance falls below a particular point
 - (b) Directly win business for the operation
 - (c) Are relatively unimportant compared with the others
 - (d) Need to be better than a good industry standard

30. An input-output analysis does not include the following step:
- (a) Clarify the requirements of internal customers served by the process outputs
 - (b) Identify the destination of outputs
 - (c) Identify connections between the two sets of data
 - (d) Identify the source of inputs
31. Which of the following is a definition of quality?
- (a) Fitness for Purpose
 - (b) Zero Defects
 - (c) Right First Time
 - (d) All of these (and more!)
32. A quality criterion which can be measured is called a _____?
- (a) Quality variable
 - (b) Quality component
 - (c) Quality attribute
 - (d) Quality characteristic
33. A quality criterion which can be assessed and either accepted or rejected is called a _____
- (a) Quality variable
 - (b) Quality component
 - (c) Quality attribute
 - (d) Quality characteristic
34. Which of these is a quality variable for a motor car?
- (a) Comfort of the seating
 - (b) Time to reach a give speed
 - (c) Road holding ability
 - (d) Headlights are working
35. Which of these is a quality attribute for a stay in a hotel?
- (a) Cost of the stay
 - (b) Time for staff to clean the room
 - (c) Comfort of the bed
 - (d) Number of other guests staying in the hotel

36. In the quality gap model which gap is explained by the gap between the standards set by management for their product or service compared to their understanding of the customers' needs?
- (a) Positioning
 - (b) Specification
 - (c) Delivery
 - (d) Perception
37. In the quality gap model which gap is explained by the gap between the standard of product or service made and supplied to the customer and that expected by them?
- (a) Positioning
 - (b) Specification
 - (c) Delivery
 - (d) Perception
38. The 4 costs of quality are external failure costs, internal failure costs, assurance costs and _____ costs.
- (a) Inspection
 - (b) Prevention
 - (c) Performance
 - (d) Insurance
39. The quality management strategy which is most associated with quality standards such as ISO9000 is _____?
- (a) Quality Inspection
 - (b) Quality Control
 - (c) Quality Assurance
 - (d) Total Quality Management
40. Which of the following is the correct cycle for the implementation of a Six Sigma quality improvement programme?
- (a) Design, Monitor, Analyse, Control, Improve
 - (b) Define, Measure, Analyse, Improve, Control
 - (c) Design, Measure, Control, Improve, Analyse
 - (d) Define, Measure, Improve, Analyse, Control
41. _____ is central to the philosophy of continuous improvement:
- (a) Management involvement
 - (b) Employee involvement
 - (c) Organization's operations

- (d) Employee retention rates.
42. In statistical process control, some tools are used primarily to detect production of defective products / services or process changes. What those tools are known as?
- (a) Regression charts
 - (b) Pareto charts
 - (c) Control charts
 - (d) Histograms
43. If the final inspector at an automobile paint shop discovers that the paint on the car has a poor finish, the car may have to be completely rescinded and repainted. This would result in _____ incurred.
- (a) Internal failure cost
 - (b) External failure cost
 - (c) Appraisal cost
 - (d) Prevention cost
44. _____ costs are incurred in assessing the level of quality attained by the operating system.
- (a) Prevention
 - (b) Appraisal
 - (c) Operating
 - (d) Failure
45. The technical aspect of Six Sigma includes all of the following Except:
- (a) Improving process performance
 - (b) Use of statistical methods
 - (c) Top management commitment
 - (d) Reduction in variations
46. A double sampling plan specifies all of the following Except
- (a) Size of the initial sample
 - (b) Size of second sample
 - (c) Lot size
 - (d) Double acceptance number
47. _____ is a philosophy of continually seeking ways to improve operations
- (a) Poke – yoke
 - (b) Kaizen
 - (c) Robustness
 - (d) Quality deployment

48. ABC Freight Company is overflowed with customer complaints of poor quality services. To achieve quality in the services being provided, managers can make use of which of the following strategy?
- (a) Cost leadership strategy
 - (b) Statistical process control strategy
 - (c) Service differentiation strategy
 - (d) Conditional service guarantee strategy
49. The concept of Agile organization refers to:
- (a) Flexibility
 - (b) Quality
 - (c) Quick Response
 - (d) Profitability
50. TQM is being criticized on the basis of factors which show:
- (a) Weak implementation of TQM practices or strong management perspective
 - (b) Strong implementation of TQM practices or weak management perspective
 - (c) Weak implementation of TQM practices or weak management perspective
 - (d) Strong implementation of TQM practices or strong management perspective
51. Kaizen means _____?
- (a) Radical innovation
 - (b) Step change innovation
 - (c) Open innovation
 - (d) Continuous improvement
52. Continuous improvement is primarily concerned with which of these criteria?
- (a) Cost
 - (b) Quality
 - (c) Flexibility
 - (d) Dependability
53. Which of these is not one of the ten guiding principles of continuous improvement proposed by Robert Lowson (2002)?
- (a) Operations orientation
 - (b) Total employee involvement
 - (c) Effective leadership
 - (d) Adaptability to change
54. Before improvements can be made to a process there need to be clear procedures and agreed

working practices established. These are normally in a written form, called _____?

- (a) Continuous Improvement Procedures
- (b) Process Control Procedures
- (c) Standard Operating Procedures
- (d) Quality Improvement Procedures

55. The improvement tool whereby a list of the most common faults in the process is analysed and then arranged in order of highest occurrence first is called _____?

- (a) Brainstorming
- (b) Pareto analysis
- (c) Balanced Scorecard
- (d) Quality circle

56. The improvement technique where a number of ideas are put forward before deciding on a final idea is called _____?

- (a) Brainstorming
- (b) Pareto analysis
- (c) Balanced Scorecard
- (d) Quality circle

57. Which of the following is not a reason which may prevent the successful adoption of a continuous improvement programme?

- (a) Lack of trust by employees in management motive
- (b) No clear purpose for the programme
- (c) Incentives scheme linked to the programme
- (d) Resistance to change

58. Comparing a firm's performance measurement against major competitors is known as _____?

- (a) Brainstorming
- (b) Benchmarking
- (c) Balanced Scorecard
- (d) Quality circle

59. A technique devised by Kaplan and Norton (1992) to measure performance across four different operating areas is known as _____?

- (a) Brainstorming
- (b) Benchmarking
- (c) Balanced Scorecard
- (d) Quality circle

60. A technique for getting ideas for innovation and improvement from other sources outside of an organization, is called _____?
- (a) Balanced Scorecard
 - (b) Brainstorming
 - (c) Benchmarking
 - (d) Open Innovation
61. Which organisation defines self-assessment as ‘a comprehensive, systematic, and regular review of the organisation’s activities and results referenced against a model of business excellence’?
- (a) International Quality Foundation
 - (b) ISO 9000
 - (c) Taguchi Institute
 - (d) European Foundation for Quality Management (EFQM)
62. The concept of total quality control, i.e. that quality must be attended to at all stages of the industrial cycle and throughout the organisation, is the creation of which of the following pioneers?
- (a) Armand Feigenbaum
 - (b) W Edwards Deming
 - (c) Genichi Taguchi
 - (d) Joseph M Juran
63. The so-called 'quality gurus' of total quality management (TQM) do NOT include which one of the following?
- (a) Bill Cosby
 - (b) Joseph M Juran
 - (c) Kaoru Ishikawa
 - (d) W Edwards Deming
64. The specific concerns of total quality management (TQM) include a number of aspects. Which of the following is NOT normally associated with TQM?
- (a) Meeting the needs and expectations of customers
 - (b) Primarily a 'worker' rather than a management activity
 - (c) Inclusion of every person in the organisation
 - (d) Covering all parts of the organisation
65. The preferred method for achieving total quality in process output is to:

- (a) Perform inspection at the next process.
 - (b) Rely on a team of highly trained and dedicated inspectors.
 - (c) Build and install an error-proof process and maintain it.
 - (d) Rely on operator self-inspection and self-correction.
66. Total quality management (TQM) programmes are more likely to remain effective if a number of prescriptions are followed. Which of the following prescriptions should NOT be followed?
- (a) Slogans and exhortations about TQM's effectiveness are avoided.
 - (b) TQM does not become a separate 'bolt-on' set of activities.
 - (c) TQM should become a substitute for normal managerial leadership.
 - (d) Quality improvement relates to an operation's performance objectives.
67. One of the most powerful aspects to emerge from TQM is the concept of the internal customer and supplier. This means that:
- (a) Service Level Agreements must be in place to ensure standards are met.
 - (b) It is the responsibility of the executive in charge of TQM to manage internal customer-supplier relationships.
 - (c) The product or service must be inspected prior to its delivery to the external customer.
 - (d) Every part of the organisation contributes to external customer satisfaction by satisfying its own internal customers.
68. Which of the following would NOT normally be considered as a 'costs of quality'?
- (a) Inspection costs
 - (b) Warranty costs
 - (c) Prevention costs
 - (d) Marketing costs
 - (e) Internal failure costs
69. Which one of the following would normally be considered as one of the 'costs of quality'?
- (a) Transport costs
 - (b) Transaction costs
 - (c) Appraisal costs
 - (d) Marketing costs
 - (e) Overhead costs
70. Which of the following is NOT noted as a disadvantage of Feigenbaum's approach to total quality management?

- (a) Does not bring together the different management theories into one coherent whole.
- (b) Does not discriminate between different kinds of quality context.
- (c) Action plan and methodological principles are sometimes vague.

Ans: 1(b), 2(b), 3(d), 4(c), 5(a), 6(d), 7(a), 8(a), 9(c), 10(a), 11(c), 12(a), 13(a),14(c), 15(d), 16(b), 17(d), 18(a), 19(a),20(c), 21(a), 22(d), 23(b), 24(d), 25(d), 26(c), 27(c), 28(a), 29(a), 30(c), 31(d), 32(a), 33(c), 34(b), 35(c), 36(b), 37(c), 38(b), 39(c), 40(b), 41(b), 42(c), 43(c), 44(b), 45(c), 46(d), 47(b), 48(b), 49(c), 50(c), 50(d), 51(d), 52(b), 53(a), 54(c), 55(b), 56(a), 57(c), 58(b), 59(c), 60(d), 61(d), 62(a), 63(a), 64(b), 65(c), 66(c), 67(d), 68(d), 69(c), 70(c)

II Short Answer Type Questions:

- 1 Define the term quality.
- 2 Explain why quality is important and the consequences of poor quality.
- 3 Identify the determinants of quality.
- 4 Describe the costs associated with quality.
- 5 Describe the quality awards.
- 6 Discuss the philosophies of quality gurus.
- 7 Describe TQM.
- 8 Give an overview of problem solving.
- 9 Give an overview of process improvement.
- 10 Describe and use various quality tools.
- 11 List and briefly explain the elements of the control process.
- 12 Explain how control charts are used to monitor a process, and the concepts that underlie their use.
- 13 Use and interpret control charts.
- 14 Use run tests to check for no randomness in process output.
- 15 Assess process capability.
- 16 Describe reorder point models and solve typical problems.
- 17 Describe situations in which the single-period model would be appropriate, and solve typical problems.
- 18 What is ISO 9000, and why is it important for global business to have ISO 9000 certification?
- 19 List and briefly explain the dimensions of service quality and the determinants of quality.
- 20 Write Short notes on Operating Characteristics (OC) Curve
- 21 Explain what an AOQ curve indicates.

- 22 What are Type I and Type II errors
- 23 What is statistical process control(SPC)?
- 24 Discuss quality control in services.
- 25 What do you mean by Bull ship effect
- 26 What do you mean by Drop Shipping
- 27 What do you mean by Keiretsu
- 28 What do you mean by Operating Characteristics Curve
- 29 What do you mean by Clustering
- 30 Discuss various types of costs of quality
- 31 What are different dimensions of design Quality
- 32 Discuss the concept and applications of Kaizen
- 33 Describe Enterprise resource Planning(ERP) system and the potential benefits associated with its implementation.
- 34 Write short notes on the following:
 - 1 Six Sigma
 - 2 Ohno's Seven wastes
 - 3 Operating Characteristic curve
35. What is "Quality at the Source"?
36. What is quality control? What are its objectives and benefits?
37. What is statistical quality control?
38. Discuss the elements of TQM concept.
39. Mention the activities falling under Kaizen umbrella.

III Long Answer Type Questions:

- 1 Discuss the quality awards?
- 2 Briefly explain each of these terms
 - (a) AOQ
 - (b) AOQL
 - (c) LTPD
 - (d) PRODUCER'S RISK
 - (e) CONSUMER'S RISK.
- 3 What is the purpose of acceptance sampling? How is it undertaken?
- 4 What is an operating characteristic curve, and how is it useful in acceptance sampling.
- 5 Discuss the significance of controlling charts.
- 6 Discuss cost of quality.
- 7 Explain how a company can achieve lower production costs and increase productivity by improving the quality of its products and services.
- 8 How does acceptance sampling differ from process control?

- 9 How are quality circles formed? How can they be made more effective?
- 10 Discuss ISO-9000 Series and its forms of certification. What are its advantages?
- 11 Discuss the various types of Costs of Quality and its relationship with quality level.
- 12 Define Total Quality Management and briefly discuss its elements.
- 13 What factors make quality management more difficult in services than in manufacturing.
- 14 What is the purpose of control charts? Explain how this purpose is achieved.
- 15 Explain the meaning of this statement, “An OC curve explains how an acceptance plan discriminates between good and bad lots.”
- 16 Define these terms: random sampling, attribute, variable, single sample, double sample, sequential sample.
- 17 Explain why X and R charts are used together.
- 18 Explain the relationship between total quality management(TQM) and quality control.
- 19 What is the purpose of control charts? Explain how this purpose is achieved.
- 20 Define these terms; n, c, AQL, AOQ, AOQL and LTPD
- 21 Explain why quality is important and the consequences of poor quality
- 22 Define ISO 9000 standard. Why it is required in industry?
- 23 Discuss the concept of ISO 14000. Is it related to Global Environment Management standards?
- 24 Give a comparison of following inventory models (i) EOQ Model (ii) Production Order Quantity Model and (iii) Quantity Discount Model.
- 25 From the following data reflecting the processing time in each work centre for various jobs, find the optimum sequence.

Jobs	Processing Time in Hours	
	Work Centre 1	Work Centre 2
A	8	14
B	5	9
C	20	11
D	17	16
E	18	10
F	12	17

- 26 ISO 9000 is a quality standard whose focus is to enhance success through eight management principles. Elucidate.
- 27 Nine units are randomly sampled from a lot of packets produced during each working hour. In all twelve samples are picked up during the course of 12 hours. The average weight of each sample is shown below:

Sample No.	1	2	3	4	5	6	7	8	9	10	11	12
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Average weight in gms.	16.1	16.8	15.5	16.5	16.5	16.4	15.2	16.4	16.3	14.8	14.2	17.3
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28. How do you develop a quality circle program? What are its benefits?
29. Discuss Crosby's 14 steps for quality management.
30. Discuss the various types of control charts used for (i) variables and (ii) attributes.
31. Discuss the seven underlying principles of total quality management.
32. What is "continuous improvement" or "Kaizen"? Discuss the three guiding principles of Kaizen.

QUESTION BANK

HUMAN RESOURCE MANAGEMENT

MS 112

QUESTION BANK
HUMAN RESOURCE MANAGEMENT
MBA II
UNIT – I

I Test Your Skills:

(a) Multiple Choice Questions:

- 1 HRM aims to maximize employees' as well as organizations'
 - (a) Effectiveness
 - (b) Economy
 - (c) Efficiency
 - (d) Performativity

- 2 The difference between HRM and Personnel Management is: -
 - (a) Insignificant
 - (b) Marginal
 - (c) Narrow
 - (d) Wide

- 3 Who takes an active role on HRM?
 - (a) CEOs
 - (b) Employees
 - (c) HR Staff
 - (d) Senior Manager

- 4 1970s represent the evolution of new discipline under the name of _____.
 - (a) Personnel management
 - (b) HRM
 - (c) Industrial sociology
 - (d) Organizational sociology

- 5 HRM function does not involve: -
 - (a) Recruitment
 - (b) Selection
 - (c) Cost Control
 - (d) Training

- 6 A statement about the values of employees to the firm that in turn shapes HR policy contents is called: -
- (a) HR programs
 - (b) HR strategy
 - (c) HR philosophy
 - (d) HR function
- 7 Which one is the first step in any human resource program?
- (a) Selection
 - (b) Planning
 - (c) Training
 - (d) Appraising
- 8 The _____ approach is based on the belief that employees have certain inalienable rights as human beings and it's the duty of the employer to protect these rights.
- (a) Paternalistic
 - (b) Behavioral HR
 - (c) Humanitarian
 - (d) None of the above
- 9 _____ employees make companies more competitive.
- (a) Motivated
 - (b) Empowered
 - (c) Qualified
 - (d) Skilled
- 10 Which of the following is/are the development function of HRM: -
- (a) Training and Executive Development
 - (b) Career Planning & Development
 - (c) Performance and Potential Appraisal
 - (d) Only a and b
 - (e) All of the above
- 11 The major constituents of TQM are _____
- (a) Customers
 - (b) Employees
 - (c) Stock-holders
 - (d) All of the above

- 12 _____ is any process that provides greater authority the sharing of relevant information and the provision of control over factors affecting job performance.
- (a) Collective Bargaining
 - (b) Empowerment
 - (c) Participation
 - (d) None of the above
- 13 Which of the following Procurement function of HRM?
- (a) Job analysis
 - (b) HRP
 - (c) Placement
 - (d) All of the above
 - (e) None of the above
- 14 Several ways in which HR activities can be done or practiced may be termed as: -
- (a) HR Practices
 - (b) HR Planning
 - (c) HR Department
 - (d) HR Roles
- 15 Employees given authority to make decisions and take actions become
- (a) Satisfied
 - (b) Empowered
 - (c) Managers
 - (d) Committed
- 16 _____ is when an employee feels that the task assigned to him is worthwhile and he cares to do so.
- (a) Impact
 - (b) Competence
 - (c) Meaningfulness
 - (d) Choice
- 17 The concept of Learning Organizations was introduced by:-
- (a) Peter Senge
 - (b) Peter F Drucker
 - (c) Robert Owen
 - (d) None of the above

- 18 Which of the following is critical to the success of TQM?
- (a) Training
 - (b) Selection
 - (c) Coordination
 - (d) Cooperation
- 19 What did the Hawthorne experiments discover?
- (a) That people need to belong to a 'social group'
 - (b) That people need heat and good lighting to work well
 - (c) Money is a motivator
 - (d) It makes no difference how you treat people at work in relation to their behaviour
- 20 Which of the following comprise the compensation function of HRM?
- (a) Job evaluation
 - (b) Wage and salary Administration
 - (c) Bonus
 - (d) All of the above
21. HR managers are generally the _____ managers:
- (a) Line
 - (b) Middle
 - (c) Staff
 - (d) Top
- 22 How often HR planning process is implemented within an organization?
- (a) Continuously
 - (b) Annually
 - (c) Bi-annually
 - (d) Quarterly
- 23 What could be the best approach for an organization to sustain in a dynamic environment?
- (a) Be stagnant
 - (b) Responsive to change
 - (c) Reluctant to change
 - (d) Merge with others
- 24 Effective HRM leads to:
- (a) Organizational success
 - (b) Organizational failure
 - (c) Organizational complexity

- (d) Organizational inefficiency
- 25 Which of the following is the main responsibility of an HR department?
- (a) Attracting candidates for job
 - (b) Ensure staff development
 - (c) Keep employees motivated
 - (d) All of the given options
- 26 HRM is associated with the management of:
- (a) General people
 - (b) Financial resources
 - (c) Organizational people
 - (d) Community members
- 27 Which of these is a major dimension of HRM practices contributing to company competitiveness?
- (a) Compensating human resources
 - (b) Acquiring and preparing human resources
 - (c) Managing the human resource environment
 - (d) All of the given options
- 28 How has technology changed HRM practices?
- (a) Recruiting using the web generates smaller, more focused applicant pools.
 - (b) Employee training is offered through scheduled classes rather than on demand.
 - (c) Electronic resumes take less time to evaluate than paper resumes.
 - (d) None of the given options.
- 29 How do companies facilitate work force diversity?
- (a) Rely on external support systems for minority workers.
 - (b) Encourage employees to challenge the beliefs and values of other employees.
 - (c) Build in accountability through surveys and audits.
 - (d) Reinforce traditional values.
30. _____ is the process of acquiring, training, appraising and compensating employees, attending to their labor relations, health and safety and fairness concerns.
- (a) Labor Relations

- (b) Organizational Behavior
 - (c) Human Resource Management
 - (d) Organizational Health and Safety Management
31. Shifting from manual to computerized system is resulted due to;
- (a) Workforce diversity
 - (b) Technological advancement
 - (c) Stake holders involvement
 - (d) Globalization
32. The 2 key practices of Performance Management and Reward Management are a part of:
- (a) Human Resource Organization (HRO)
 - (b) Human Resource Planning (HRP)
 - (c) Human Resource Systems (HRS)
 - (d) Human Resource Development (HRD)
33. The functions performed by the HR Managers are:
- (a) Voluntary Integration
 - (b) Training
 - (c) Planning
 - (d) All the above
34. The quality of HRM practiced in an organizational is indicated by:
- (a) The type of employee treatment
 - (b) The type of organizational climate
 - (c) The type of management style
 - (d) All the above
35. The HRM practice which involves the appraisal of results against objectives is called
- (a) Reward Management
 - (b) Employee Management
 - (c) Task Management
 - (d) Performance Management
36. The Culture Management Programme is a part of:
- (a) Human Resource Organization (HRO)
 - (b) Human Resource Planning (HRP)
 - (c) Human Resource Systems (HRS)
 - (d) Human Resource Relationships (HRR)

- 37 The Career Management Programmes are incorporated into:
- (a) Human Resource Development
 - (b) Human Resource Organization
 - (c) Human Resource Systems
 - (d) Human Resource Planning
- 38 Which of the following strategies could be used to make the practice of HRM more effective?
- (a) Conducting a productivity audit
 - (b) Introducing work measurement
 - (c) improving employee motivation
 - (d) Introducing new technology
- 39 Which of the following are future issues and needs impending as HRM and Human Welfare?
- (a) Unemployment and under employment
 - (b) Slower economic growth
 - (c) Social costs
 - (d) Struggle for human rights
- 40 Human Resource Management is an approach based on- key principles-
- (a) Two
 - (b) Three
 - (c) Four
 - (d) Five
- 41 _____ are the resources that provide utility value to all other resources.
- (a) Men
 - (b) Material
 - (c) Money
 - (d) Machinery
- 42 The term procurement stands for
- (a) recruitment and selection
 - (b) training and development
 - (c) pay and benefits
 - (d) health and safety
- 43 The characteristics of human resources are _____ in nature
- (a) homogeneous

- (b) heterogeneous
 - (c) ductility
 - (d) None of the above
- 44 Identify the managerial function out of the following functions of HR managers.
- (a) procurement
 - (b) development
 - (c) organizing
 - (d) performance appraisal
- 45 Which of the following is an example of operative function of HR managers ?
- (a) planning
 - (b) organizing
 - (c) procurement
 - (d) controlling
- 46 The scope of human resource management includes
- (a) procurement
 - (b) development
 - (c) compensation
 - (d) all of the above
- 47 Human resource management is normally _____ in nature.
- (a) proactive
 - (b) reactive
 - (c) combative
 - (d) None of the above
- 48 The human resource management functions aim at
- (a) ensuring that the human resources possess adequate capital, tool, equipment and material to perform the job successfully.
 - (b) helping the organization deal with its employees in different stages of employment.
 - (c) improving an organization's credit worthiness among financial institutions.
 - (d) none of the above
- 49 Which of the following aptly describes the role of line managers and staff advisors, namely HR professionals ?
- (a) Staff advisors focus more on developing HR programmes while line managers are more involved in the implementation of those programmes.

- (b) Line managers are concerned more about developing HR programmes whereas staff advisors are more involved in implementation such programmes.
 - (c) Staff advisors are solely responsible for developing, implementing and evaluating the HR programmes while line managers are not all involved in any matters concerning HR.
 - (d) Line managers alone are responsible for developing, implementing and evaluating the HR programmes while staff advisors are not all involved in any matters concerning HR.
50. Treating employees as precious human resources is the basis of the _____ approach.
- (a) Hard HRM
 - (b) Soft HRM
 - (c) Medium HRM
 - (d) None of the above
51. The basic managerial skill(s) is(are)
- (a) To supervise
 - (b) To stimulate
 - (c) To motivate
 - (d) All of the above
52. The three important components in aligning business strategy with HR practice:
- (a) Business Strategy, Human Resource Practices, Organisational Capabilities
 - (b) Marketing Strategy, Human Resource Practices, Organisational Capabilities
 - (c) Business Strategy, Human Resource Practices, Organisational structure
 - (d) Marketing Strategy, Human Resource Practices, Organisational structure
53. The actual achievements compared with the objectives of the job is
- (a) Job performance
 - (b) Job evaluation
 - (c) Job description
 - (d) None of the above
54. The following is (are) concerned with developing a pool of candidates in line with the human resources plan
- (a) Development
 - (b) Training
 - (c) Recruitment
 - (d) All of the above

55. The following is (are) the option(s) while planning for surplus
- (a) Reassign the jobs
 - (b) Redesign the jobs
 - (c) Reduce work hours
 - (d) All of the above
56. _____ is the simple act of comparison & learning for organisational improvement
- (a) Benchmarking
 - (b) Feedback
 - (c) Ranking
 - (d) Job evaluation
57. When effort to earn additional income through a second job does not bear fruit, such type of efforts & the consequent results may be called as
- (a) Red moon lighting
 - (b) Blue moon lighting
 - (c) Yellow moon lighting
 - (d) Silver moon lighting
58. Which of the following is (are) the HRD score card?
- (a) HRD systems maturity score
 - (b) Competency score
 - (c) HRD competencies systems maturity score
 - (d) All of the above
59. Which pay is one of the most crucial pay given to the employee & also shown in the pay structure?
- (a) Performance
 - (b) Strategic
 - (c) Bonus
 - (d) Commission
60. The three types of forecasts are
- (a) Economic, employee market, company's sales expansion
 - (b) Long, Short, Medium
 - (c) Production, economic, company's sales expansion
 - (d) Production, labor, economic

61. Early research determining that individual and group behaviour was important to organisations involved the
- (a) Hawthorne studies
 - (b) Scientific management Groups
 - (c) Use of employee testing
 - (d) Management investigations
62. The basic notion of human relations movement was that :
- (a) employees have to be intimidated to be motivated
 - (a) Technology was in decline
 - (b) Satisfied employees would work harder for the company
 - (c) Unions were a waste of time
63. Which of the following activities MOST directly relates to the basic HRM goal of facilitating organisational competitiveness :
- (a) Developing a strategic perspective to HRM to satisfy goals and objectives
 - (b) Investing in employee training that enhances productivity
 - (c) Complying with government regulations
 - (d) Designing outreach programs to attract minority applicants
64. Which of the following is not a specific requirement for becoming a successful HR Manager :
- (a) An understanding of legal environment
 - (b) General management skills and abilities
 - (c) Understanding of other functional areas
 - (d) A degree in HRM
65. Companies can establish a competitive advantage by
- (a) Hiring good employees and effectively managing human resources
 - (b) Always implementing a hierarchical management scheme
 - (c) Adopting a universalistic financial strategy
 - (d) None of these
66. _____ strategy involves the actions taken by firms to better operate in a relevant industry or market
- (a) Adaptation
 - (b) Business
 - (c) Functional
 - (d) Competitive

67. When organisations are downsizing the number of employees in the hierarchy, this usually involves a strategy
- Growth
 - Retrenchment
 - Stability
 - Business
68. A _____ strategy occurs when a company targets a particular part of the market.
- Diversification
 - Focus
 - Cost Leadership
 - Retrenchment
69. All of the following researchers contributed to the early growth of the HR function except :
- Elton Mayo
 - Frederick Taylor
 - Douglas Mc Gregor
 - Thomas Edison
70. Companies that view their human resource function as a strategic asset should not evaluate HR effectiveness by investigating.
- Costs and benefits
 - Organizational outcomes such as productivity
 - Profitability
 - Costs as the only factor

Ans. (1)(a), (2)(d), (3)(b), (4)(b), (5)(c), (6)(c), (7)(b), (8)(c), (9)(b), (10)(e), (11)(d), (12)(b), (13)(d), (14)(a), (15)(b), (16)(c), (17)(a), (18)(a), (19)(a), (20)(d), (21)(c), (22)(a), (23)(b), (24)(a), (25)(d), (26)(c), (27)(d), (28)(a), (29)(b), (30)(c), (31)(b), (32)(c), (33)(d), (34)(d), (35)(d), (36)(a), (37)(a), (38)(c), (39)(c), (40)(d), (41)(a), (42)(a), (43)(b), (44)(c), (45)(c), (46)(d), (47)(a), (48)(b), (49)(a), (50)(b), 51(d), 52(a), 53(a), 54(c), 55(d), 56(a), 57(b), 58(d), 59(a), 60(a), 61(a), 62(c), 63(a), 64(d), 65(a), 66(b), 67(b), 68(b), 69(d), 70(d).

II Short Answer Type Questions:

- 1 Explain the qualities of HR managers.
- 2 State the status of Human Resource Manager
- 3 HRM is a staff function and a line responsibility- Comment
- 4 Is separation a negative function? Comment.

- 5 HRM is a line manager's responsibility but a staff functions. Elucidate.
- 6 How does technology affect the HR function?
- 7 How do you explain the elements of empowerment?
- 8 What are the barriers to empowerment?
- 9 Elucidate the characteristics of Human Resource Management.
- 10 Why has the HRM function increased in stature and influence in many organizations?
- 11 Give examples of how HR concepts and techniques can be of use to all managers.
- 12 Describe HR's role as a strategic partner in formulating and in executive strategy
- 13 "The challenge and the role of HR Department being what it is, it is strange that its status is not recognized and respected". Comment.
- 14 Outline the features of a learning organization.
- 15 What is the role of learning organization in promoting organization's effectiveness?
- 16 What is the significance of traditional HRM?
- 17 Write a short note on HR department
- 18 What are the different stages of growth in HRM?
- 19 State the difference between HRM and Personnel management?
- 20 State the significance of HR department in every organization.
- 21 What are the strategies to be followed by an organization to empower to their employees?
- 22 Outline the elements of HRM process.
- 23 What is the role played by the HR in managing technological changes?
- 24 What is the relevance of workforce diversity in organizations?
- 25 What can be the pitfalls associated with workforce diversity?
- 26 Why should the HR managers monitor demographic trends (such as composition, race, age, sex, education etc.)?
- 27 What are the most important workplace trends that are affecting HR today?
- 28 How can diversity be managed? Offer suggestions at both the individual and organizational levels.
- 29 Elucidate the challenges faced by HR managers in managing the careers of new age employees.
- 30 Write a short note on managing protean careers.
- 31 How can moonlighting employees fill in the void in the cases of sudden spurt of worker demand?
- 32 Outline the benefits associated with the hiring of moonlighting employees.
- 33 What is HRM? Summarize the evolution of human resource function.
- 34 Write short note on Managing Protean Careers
- 35 What are the challenges available for HR managers of today? What are the coping strategies
- 36 Explain the systems approach to HRM
- 37 Discuss the advantages of HRM.
- 38 How can we facilitate diversity at workplace?

- 39 Distinguish between empowerment and delegation
- 40 HRM is a staff function and line responsibility. Comment.
- 41 Differentiate between HRM and HRD.
- 42 What are the implications of globalization, technology and e-commerce?
- 43 How will demographic changes and increasing diversity in the workplace affect the ways that organizations manage their people?
- 44 How can HRM process contribute to improvements in productivity and quality of work life?
- 45 What should be the broad elements of a company policy to emphasize the management of diversity?
- 46 Organization can achieve through its human resource, therefore HR objectives need to match with the organizational objectives, analysis.
- 47 Each line manager performs certain HR functions, therefore HR depends on them, explain.
- 48 HR is the number one resource in an organization, justify with importance on HR management.
- 49 Each line manager performs certain HR functions, therefore HR depends on them, explain.
- 50 Analyse the impact of globalization on human resource management.
- 51 Outline the policies and principles of HRM

III Long Answer Type Questions:

- 1 Write a commentary on the history of the development of HRM in India.
- 2 Explain the nature and functions of HR in an organization.
- 3 Explain the concept of HRM? Bring out the scope and importance of HRM.
- 4 State the meaning of HRM. How does it help an organization in promoting productivity and morale of employees?
- 5 How do you think the internet will change the way in which HR processes, such as hiring, compensating, evaluating and benefits are performed?
- 6 Discuss the relationship between technology and HR strategies and actions. What can HR managers do to grapple with economic challenges and technological advancements?
- 7 How does the personnel function change as a firm grows in size? Briefly explain each stage of its development.
- 8 Is it correct to say that “all managers are involved in human resource management functions in the present era of globalization”. Comment. Also describe the qualities of a successful Human Resource Manager.
- 9 Give a detailed account of the evolution of HRM right from the commodity concept till date.
- 10 Explain the process and significance of HRM.
- 11 Discuss the changing role of HRM in the 21st century.

- 12 “As a result of globalization and liberalization, HRM function has acquired strategic importance in modern organizations.” Comment.
- 13 What are the contemporary challenges for the HR professionals? Discuss how TQM facilitates employee empowerment.
- 14 Explain the concept and implications of empowerment of employees.
- 15 “HRM seeks to achieve personal and social goals”. Explain. Outline the major functions of HRM
- 16 “HRM involves all management decisions and practices that directly affect or influence the people who work for the organization “. Discuss
- 17 How is the concept of HRM different from that of PM? Explain your answer with appropriate examples.
- 18 Management of HR is the responsibility of every manager and not only of the human resource department – Comment
- 19 Examine the major environmental factors that influence the HR decisions. Illustrate your answer with examples from the Indian context.
- 20 Explain the HRM models. Which according to you is the most comprehensive?
- 21 Discuss in detail the ARDM (Acquiring, Rewarding, Developing and Maintaining) Model of Human Resource Management, detailing the External and Internal Environmental Influences.
- 22 What do you understand by employee empowerment? Describe various approaches to empowerment.
- 23 Explain the factors which impede employee empowerment in work organization. How can empowerment be made effective?
- 24 Describe briefly different HRM models proposed both researchers both in India and abroad.
- 25 What is HRM? In what ways is it similar and dissimilar to personnel management?
- 26 What is the scope of HRM functions and activities? Indicate various traditional and strategic roles of HRM professionals in this context.
- 27 In the context of changing environment, HR managers perform varied roles to accomplish outstanding results.” Discuss.
- 28 Explain in detail the components involved in HRM process with diagram?
- 29 What is the current status of HRM in India? What factors have contributed to a change in HRM?
- 30 Briefly discuss the implications of change in the profile of people, technology and environment in managing people in organizations.
- 31 “Human resource management involves two categories of functions-managerial and operative.” Describe these functions.
- 32 “People are always an organization’s most valuable assets”. Explain.
- 33 Describe how the competitive challenges have changed the course of Human resource management.

- 34 “The development of the knowledge-based economy brought profound influences on career management”. Elucidate.
- 35 Identify several consequences of an organization’s failure to recognize that its HRM practices comprise an interrelated system.
- 36 Discuss an Indian and an Abroad based HR model.
- 37 “The approach towards Human Resource Management has undergone transformation through different stages. And this process of transformation is still going one”. Discuss the modern trends in HRM.
- 38 “Personnel Management of yesteryears has become human resource management of today”. Explain.
- 39 Outline the impact of political, legal, economic, cultural and technological factors on HR function.
- 40 Describe how a proactive HR department would cope with the entry of MNC’s.
- 41 Human resource management is a process of bringing people and organization together so that the goals of each other are met.” Comment. Discuss the operative functions of human resource management in the light of the above statement, emphasizing the need for integration function.
- 42 Discuss the objectives of HRM. Why is HRM gaining importance?
- 43 What are the pros and cons of having more diverse workforce? Is India in a position to compete globally because of its diverse population?
- 44 In your opinion, what is the most important role of HR managers? How do changes across the globe change the role of an HR manager in India?
- 45 Describe in detail management styles and practices that will be effective for your country’s businesses in the next decade.
- 46 Trace the evolution of Human Resource Management and discuss how the paradigm shifts in HRM transformed the roles and responsibilities of HR manager.
- 47 Strategic Planning and Human Resource Planning go hand in hand. Analyse.
- 48 What are the challenges faced by a HR manager in the current situation?
49. Managing work force diversity is one of the great challenges Multinational Companies operating in India are facing today. Discuss.
50. Define “Human resource management” What is the importance of H.R.M in present Global scenario?
51. What are the issues in HRM that are faced by small businesses?
52. HRM policies and principles contribute to the effectiveness, continuity and stability of the organisation.” Give reasons
53. Discuss the importance of HRM in the contemporary business environment with special reference to India
54. “HRM involves all management decisions and practices that directly affect or influence the people who work for the organisation.” Discuss
55. Discuss various HRM models which exist? How have these models evolved in India and

abroad?

UNIT - II

I Test Your Skills:

(a) Multiple Choice Questions:

- 1 HR's strategic architecture can be shown as: -
 - (a) HR Function → HR System → Employee Behaviors
 - (b) HR System → HR Function → Employee Behaviors
 - (c) HR Function → Employee Behaviors → HR System
 - (d) HR System → Employee Behaviors → HR Function

- 2 Which activities are not associated with human resource planning?
 - (a) Forward planning
 - (b) Scenario planning
 - (c) Time keeping
 - (d) Succession planning

- 3 JA process is: -
 - (a) Mostly informal
 - (b) Specialized
 - (c) Highly formal
 - (d) Mostly technical

- 4 Why is job analysis so infused with organizational politics? Is it:
 - (a) The process which could lead to contraction of employees in a department and therefore diminishing its power base.
 - (b) A result of interdepartmental rivalry.
 - (c) Because it is not an objective activity.
 - (d) The process through which companies try to shed labour.

- 5 Reasonable balance between demand and supply of labor is necessary in: -
 - (a) Manpower planning
 - (b) JD
 - (c) Recruitment
 - (d) JA

- 6 Which of the following is not involved in manpower planning?
- (a) Analysis of requirements
 - (b) Intuitive judgment
 - (c) Forecast
 - (d) Course of action
- 7 Forecast requirements, besides demand, essentially take into account
- (a) Processes
 - (b) Consumers
 - (c) Supply of labor
 - (d) Products
- 8 Statement describing the values, objectives and goal of HR department is called _____
- (a) HR vision
 - (b) HR strategy
 - (c) HR mission
 - (d) HR design
- 9 Method of data collection to back up a forecast of personnel needs _____
- (a) IPS
 - (b) PEEP
 - (c) PAIR
 - (d) HRIS
- 10 Minimum acceptable qualifications required for a job are termed as: -
- (a) JS
 - (b) JD
 - (c) JA
 - (d) Job Appraisal
- 11 Job Enlargement means: -
- (a) Horizontal expansion
 - (b) Vertical expansion
 - (c) Diagonal expansion
 - (d) Circular
- 12 That which adds more of the same type of duties requiring same skills is: -
- (a) Job progression
 - (b) Job enrichment
 - (c) Job enlargement

- (d) Job relatedness
- 13 Intelligence and memory of a person constitute_____ characteristics: -
- (a) Psychological
 - (b) Physical
 - (c) Mental
 - (d) Social
 - (e) Personal
- 14 The use of process criteria in job selection means that the individual is being assessed on _____.
- (a) The number of tasks they can process simultaneously.
 - (b) A methodological approach to task completion.
 - (c) How many tasks can be processed in a set amount of time.
 - (d) The right way to complete a task successfully.
15. Which of the following is a stated outcome of 'Job Analysis'?
- (a) Job description
 - (b) Job specification
 - (c) Job evaluation
 - (d) All of the given options
- 16 Job analysis can be performed in all of the following ways except:
- (a) Observing hourly work
 - (b) Reviewing interviews conducted with departing employees
 - (c) Studying diaries or daily journals that manager kept over a three-month period
 - (d) Giving workers checklists to indicate which tasks on the list are performed during job execution.
17. HRM has primary responsibility for all of these implementation variables except:
- (a) Task design
 - (b) People
 - (c) Reward systems
 - (d) Organization structure
18. Which of these is the process of getting detailed information about jobs?
- (a) Job design
 - (b) Job description
 - (c) Job analysis
 - (d) Job skills

19. In which of these steps, the HR manager attempts to ascertain the supply of and demand for various types of human resources?
- (a) Forecasting
 - (b) Program implementation
 - (c) Evaluation
 - (d) Goal setting
20. To anticipate the human resource needs of the organization based on some previous data or managerial judgment is known as;
- (a) Demand forecasting
 - (b) Supplies forecasting
 - (c) Financial forecasting
 - (d) Sales forecasting
21. HRP addresses which of the following needs of the employees
- (a) Social
 - (b) Development
 - (c) Economic
 - (d) All of the above
22. Manpower planning is more important if the organization's goals include
- (a) Rapid expansion
 - (b) Stable growth
 - (c) Identifying the marketing mix
 - (d) All of the above
23. Certain jobs require planning activities projecting 1 or 2 even more years in future. These jobs are:
- (a) Unskilled jobs
 - (b) Semi skilled jobs
 - (c) High skilled jobs
 - (d) All of the above
24. An HR Plan is influenced by
- (a) Goals of the organization
 - (b) Government policies
 - (c) Types of employees and tasks they perform
 - (d) All of the above

- 25 A strategic plan must adopt to
- (a) Social Structure
 - (b) Economic Policies
 - (c) Environmental Circumstances
 - (d) All of the above
- 26 At the first stage of HRP, HRM interact with
- (a) Job design
 - (b) Strategic planning
 - (c) Financial Management
 - (d) All of the above
- 27 Seasonal Variations in forecasting HR demand follow
- (a) Cyclical variation
 - (b) Random variation
 - (c) Long term trend
 - (d) None of the above
- 28 Which of the following is a forecasting technique
- (a) SWOT analysis
 - (b) ANOVA (Analysis of Variance)
 - (c) Trend projection
 - (d) None of the above
- 29 The Markov chain analysis involves which of the following
- (a) Developing an employee mature indicating working position of employee
 - (b) Analysis of staffing level
 - (c) Analysis of Human Resource shift
 - (d) All of the above
- 30 Management inventories, succession planning and skill inventory are the tools of
- (a) Human resource demand forecasting
 - (b) Human resource supply forecasting
 - (c) Manpower planning
 - (d) None of the above
- 31 Human resource refers to
- (a) Distribution of natural resource amongst human beings
 - (b) Productive power in human beings

- (c) Economic condition of human moves
 - (d) All of the above
- 32 Manpower planning is carried out in order to achieve
- (a) Recruitment plan to avoid unexpected shortages
 - (b) Identification of training needs
 - (c) Increased productivity
 - (d) All of the above
- 33 HRP planning involves
- (a) 4 phases
 - (b) 8 phases
 - (c) 2 phases
 - (d) None of the above
- 34 The most frequently used approach to employment planning is
- (a) Nominal Group Technique
 - (b) Modelling and Multiple predictive techniques
 - (c) Trend projection
 - (d) The expert estimate
- 35 A mathematical procedure which predicts a dependent variable based on knowledge of factors known as independent variable is called
- (a) Correlation analysis
 - (b) Regression analysis
 - (c) ANOVA (Analysis of Variance)
 - (d) None of the above
- 36 Increase in the use of part-time workers, sub contractors and independent professionals can be attributed to
- (a) Intense global competition
 - (b) Rapid technological change
 - (c) Apprehensions caused by recent workforce reduction.
 - (d) All of the above
37. The term ____is commonly used for those employees whose pay is calculated according to the number of hours worked.
- (a) Pay
 - (b) Reward
 - (c) Wage

- (d) Salary
38. This method is generally used to collect employee opinions about the factors which affect morale and their effect on personnel objectives.
- (a) Interview Method
 - (b) The Questionnaire Method
 - (c) Brainstorming
 - (d) Focus Group
39. Companies are designing _____ programs to increase employee productivity, control attrition, prevent job burnout and obsolescence, and improve the quality of employees' work lives.
- (a) Employee growth
 - (b) Recruitment
 - (c) Selection
 - (d) Appraisal
40. Which method is best suited to adjust short term fluctuations?
- (a) Contractual staffing
 - (b) Voluntary Organization
 - (c) Casual applications
 - (d) Employment agencies
41. Job analysis is a process of gathering information about the
- (a) Job Holder
 - (b) Job
 - (c) Management
 - (d) Organization
42. The final process of a job analysis is the preparation of two statements, namely,
- (a) job observation and job description
 - (b) job specification and job observation
 - (c) Job description and job specification
 - (d) Name of the above

- 43 Which of the following terms is not associated with job analysis ?
- (a) Task
 - (b) Duty
 - (c) Position
 - (d) Competitor
- 44 The process of bringing together different tasks to build a job is called
- (a) Job evaluation
 - (b) Job design
 - (c) Job classification
 - (d) Job description
- 45 The process of grouping of similar types of works together is known as
- (a) Job classification
 - (b) Job design
 - (c) Job evaluation
 - (d) Job description
- 46 The system of ranking jobs in a firm on the basis of the relevant characteristics, duties, and responsibilities is known as
- (a) Job evaluation
 - (b) Job design
 - (c) Job specification
 - (d) Job description
- 47 The written statement of the findings of job analysis is called
- (a) Job design
 - (b) Job classification
 - (c) Job description
 - (d) Job evaluation
- 48 A structured questionnaire method for collecting data about the personal qualities of employees is called
- (a) Functional job analysis
 - (b) Management position description questionnaire
 - (c) Work profiling system
 - (d) None of the above

- 49 The model that aims at measuring the degree of each essential ability required for performing the job effectively is known as
- (a) Fleishman Job Analysis System
 - (b) Common Metric Questionnaire
 - (c) Management Position Description Questionnaire
 - (d) Functional Job Analysis
- 50 The method that depends mainly on the ability and experience of the supervisors for gathering relevant information about the job is called the
- (a) Task inventory analysis method
 - (b) Technical conference method
 - (c) Diary maintenance method
 - (d) Critical incident method
- 51 Designing a job according to the worker's physical strength and ability is known as
- (a) Ergonomics
 - (b) Task assortment
 - (c) Job autonomy
 - (d) None of the above
- 52 Which of the following is not a component of job design ?
- (a) Job enrichment
 - (b) Job rotation
 - (c) Job re engineering
 - (d) Job outsourcing
- 53 Moving employees from one job to another in a predetermined way is called
- (a) Job rotation
 - (b) Job re engineering
 - (c) Work mapping
 - (d) Job enrichment
54. The actual achievements compared with the objectives of the job is
- (a) Job performance
 - (b) Job evaluation
 - (c) Job description
 - (d) None of the above
55. HR plans of any organization does not include
- (a) Personnel plans
 - (b) Production plans

- (c) Compensation plans
 - (d) Training and development plans
56. A personnel plan requires forecast of
- (a) Personnel needs
 - (b) Supply of inside candidates
 - (c) Supply of outside candidates
 - (d) All of above
57. Which of the following is an assumption of rationality to rationale decision making?
- (a) Preferences are clear
 - (b) Final choice will maximise payoff
 - (c) The problem is clear and unambiguous
 - (d) All of the above
58. _____ is the process of collecting job related information.
- (a) Job analysis
 - (b) Job design
 - (c) Methods of collecting job data
 - (d) None of the above
59. Which of the following details is mentioned in job specification?
- (a) Materials and forms used
 - (b) Location
 - (c) Hazards
 - (d) Physical skills
60. The following are the factors which come under ' Work planning' that is component systems of HRD.
- (a) Contextual analysis
 - (b) Role analysis
 - (c) Performance appraisal
 - (d) All of the above
61. Which of the following is not correct regarding job analysis ?
- (a) It is the process of gathering and organising detailed information about jobs
 - (b) It is the fundamental input to HRP process
 - (c) It helps mangaers understand the processes
 - (d) It results from the design of recruitment and selection procedures for new employees

62. A _____ can often facilitate the forecasting of human resources
- (a) eHRIS
 - (b) Focus group
 - (c) Quality Circle
 - (d) Think Tank
63. Which job analysis technique consists of requiring subject matter experts to develop a comprehensive description of work ?
- (a) Narrative Job Analysis
 - (b) The PAQ
 - (c) Functional Job Analysis
 - (d) Process Job Analysis
64. Which of the following would be included in a job specifications for an administrative assistance ?
- (a) Keeping MOM
 - (b) Answering phones
 - (c) Typing Correspondence
 - (d) Ability to take dictation in shorthand
65. Designing a job according to the worker's physical strength and ability is known as
- (a) Ergonomics
 - (b) Task Assortment
 - (c) Job Autonomy
 - (d) None Of the above
66. Re-designing a business process for more efficient and effective results is called
- (a) redesigning jobs of workers
 - (b) assigning additional activities to workers
 - (c) moving workers from one job to other
 - (d) reengineering
67. Term job enlargement means
- (a) redesigning jobs for workers
 - (b) assigning additional activities for workers
 - (c) moving workers from one job to other
 - (d) none of above

68. Term 'job enrichment' means
- (a) redesigning jobs for workers
 - (b) assigning additional activities to workers
 - (c) moving workers from one job to other
 - (d) none of above
69. Relationships section of job description defines whom would you
- (a) supervise
 - (b) report to
 - (c) work with
 - (d) all of above
70. Position Analysis Questionnaire (PAQ) for job analysis is
- (a) quantitative technique
 - (b) qualitative technique
 - (c) both A and B
 - (d) none of above

Ans. (1)(a), (2)(c), (3)(c), (4)(a), (5)(a), (6)(b), (7)(c), (8)(c), (9)d), (10)(a), (11)(a), (12)(c), (13)(c), (14)(d), (15)(d), (16)(a), (17)(d), (18)(c), (19)(a), (20)(a), (21)(b), (22)(a), (23)(c), (24)(d), (25)(c), (26)(b), (27)(a), (28)c), (29)(d), (30)(b), (31)(b), (32)(d), (33)(a), (34)(d), (35)(b), (36)(d), (37)(c) (38)(a)(39)(a)(40)(a), (41)(b), (42)(c), (43)(d), (44)(b), (45)(a), (46)(d), (47)(c), (48)(c), (49)(a), (50)(a), 51(a), 52(d), 53(a), 54(a), 55(b), 56(d), 57(d), 58(a), 59(d), 60(d), 61(d), 62(a), 63(a), 64(d), 65(a), 66(a), 67(b), 68(a), 69(d), 70(a).

II Short Answer Type Questions:

- 1 Explain the difference between traditional & strategic HRM.
- 2 Outline the uses of strategic HRM.
- 3 What role does HRM play in strategy formulation of an organization?
- 4 State the limitations of Human Resource Planning.
- 5 What is the significance of Human Resource inventory?
- 6 Differentiate between Job analysis & Job description.
- 7 State the objectives of Job analysis.
- 8 Why is job analysis the foundation of many other HR activities?
- 9 Explain the content of Job description.
- 10 Differentiate between Job specification & Job description
- 11 How can HR become a source of competitive Advantage?

- 12 Explain the relationship between HRM and the lifecycle of organization.
- 13 What are the elements required for formulating the HR policy?
- 14 Explain the two components of job analysis?
- 15 What action decisions can be taken in case there is a shortage in the supply of HR in organizations?
- 16 Why is HR planning more common among large organizations than among small ones?
- 17 What are the reasons for the growing interest in HRP in recent years?
- 18 What are the major sources of manpower supply?
- 19 What precautions should be taken while preparing job description?
- 20 Enumerate the classical approach to job design.
- 21 What is workload analysis?
- 22 Job enrichment is vertical loading whereas Job Enlargement is relevant horizontal loading.
- 23 Workload analysis for estimating the manpower requirements is relevant only for manufacturing organizations.
- 24 Do you agree that HRP is a mere ritual in the fast changing environment?
- 25 What factors influence the demand for human resources in an organization?
- 26 Explain the costs associated with turnover.
- 27 What is importance associated with understanding the turnover rates?
- 28 What steps can be proposed for organizations wherein there are high turnover rates?
- 29 What competitive environmental forces influence the firm's strategies?
- 30 Explain the difference between a firm's business and corporate strategy.
- 31 Workload Analysis for estimating the manpower requirements is relevant only for manufacturing organizations. Comment.
- 32 Write short note on Ergonomic consideration of job design
- 33 Write notes on
 - a) Turnover rate, Absenteeism rates, Turnover Cost and HRIS
 - b) Role of HR Generalist and HR Specialist
- 34 What is SHRM? How does it differ from conventional HRM?
- 35 Explain critically the steps in the job analysis process with relevant examples
- 36 List the typical HR strategies
- 37 How are personnel needs and personnel supplies estimated?
- 38 From an HR manager's point of view what are the uses of job analysis?
- 39 How are workforce plans related to business and HR strategies?
- 40 Why are forecasts of workforce demand more uncertain than forecasts of workforce supply?
- 41 When is it more cost effective to 'buy' rather than to 'make' competent employees?
- 42 Why should the output from forecasting models be tempered with the judgement of experienced line managers?
- 43 List the changes in work schedules practiced by organizations in India
- 44 HR planning needs to be strategic, explain.

- 45 Market economy influence the HR plan, give an analytical picture highlighting on the concerned factors.
- 46 Explain the barriers to HRP.
- 47 From an HR's point of view, what are the uses of job analysis
- 48 Why is job analysis confined to large organisations?
- 49 Evaluate the challenges affecting the effectiveness of the job analysis process.
- 50 What are the tasks of Human Resources Specialist?
- 51 List out the strategies available to HR managers for enriching jobs in an organization.
- 52 "Job Design should always be in alignment with the strategic goals of the organisation". Discuss
- 53 Enumerate the various techniques available to forecast the HR needs of an organisation.
- 54 "As the organisations become more global, HRP becomes more important and complex." Elucidate
- 55 Differentiate between 'Job Rotation, Job enlargement and job enrichment'

III Long Answer Type Questions:

- 1 "In today's fast changing environment, HRM is an indispensable tool in the hands of organizations for gaining competitive advantage." Critically evaluate this statement in the context of Corporate India.
- 2 The HRM function has acquired strategic importance in organization due to economic liberalization & globalization". Comment
- 3 Highlight the role of HR manager in a company using strategic HR. How would these roles be different from HR manager in a company not adopting strategic HR approach for managing their HR?
- 4 "The logical approach to staffing begins with a careful assessment and planning of current and prospective requirements". Comment
- 5 Assume you have to develop a HR plan for a new-generation private sector bank having branches in major towns in India: What specific external factors would be important for you to consider. Why?
- 6 How can organizations develop accurate HR plans which, in turn, are impacted by a number of environmental factors over which managers have little or no control?
- 7 When employees possess transferable skills and indulge in job hopping, developing effective human resource plans proves to be tough exercise? Do you agree? Why or Why not?
- 8 Human Resource Planning has two stages- "Planning for manpower requirements and Planning for Manpower supplies". Explain. What strategy should be adopted by an organization in case of surplus manpower?
- 9 "The scope of human resources planning extends beyond identifying the number of people required." Discuss different types of action plans based on HRP exercise in an organization.

- 10 “Job analysis is a formal and scientific study undertaken to identify the job contents and the qualities that are required in job holder”. Elucidate this statement in light of the job analysis process.
- 11 Job Analysis is a technique to determine qualitative aspect of manpower planning”. Comment. Prepare the Job Description of a Finance Manager in Non-Banking Finance Company.
- 12 What are the objectives of HR planning? Discuss the steps involved in HRP.
- 13 Define Human Resource Forecasting and explain the various methods involved in the process.
- 14 Explain the concept of HRP? How is it carried out at various levels in the enterprise?
- 15 Place yourself in the position of being the of a service department. How might formally written job requirements help you manage your work unit?
- 16 ‘Although systematic in nature, a job description is still at best a subjective result of a job analyses, why or why not? Discuss.
- 17 Discuss the Strategic Human Resource Management model in detail.
- 18 Explain the benefit of manpower planning to an industrial enterprise.
- 19 “HRP today has taken the front wheel role in organization’s strategic planning”. Discuss in detail.
- 20 What is Job Analysis? What are the different methods used to collect job analysis information?
- 21 Explain how would you conduct a job analysis?
- 22 What do you understand by job analysis? Examine the uses of job analysis information in HRM.
- 23 Describe the concept of job description. Discuss the process of developing job specification. What should be included in employee specification?
- 24 Define job specification. How is it different from job description? Draw a specimen form of job specification.
- 25 Explain the nature of HR policy. How would you formulate HR policies?
- 26 Explain the need for a fit between corporate competitive strategies and HR strategies.
- 27 What is meant by HR planning? Describe its function in an organization.
- 28 How would you organize and implement HR planning? Discuss the varied steps required in effective HR planning.
- 29 Describe the various quantitative and qualitative techniques of HR planning.
- 30 What are the contributions of human resource to strategic objectives of a firm? Is it possible to link HR planning with corporate objective?
- 31 Define the relationship between job analysis, job description and job specification.
- 32 Explain the recent trends in job redesign.
- 33 What do you understand by job design? Explain the main methods used to design jobs.

- 34 “There exists a close relationship between HRP, Job analysis/job description and employee selection”. Do you agree with the statement? If yes, explain how, is no, illustrate why not. Substantiate your answer with the help of suitable examples and conceptual models.
- 35 Explain the job characteristics model of job design and work motivation.
- 36 “Smaller organizations do not need job analysis for their jobs because most of their employees conduct a myriad of activities, too far-reaching for a standard job analysis”. Comment.
- 37 What are the sources of HR Planning? How might imbalances between HR demand and supply be reconciled?
- 38 What is Job Analysis? Discuss the significance of Job Analysis.
- 39 Define Job-Design. Discuss the Behavioural and Ergonomic Consideration while designing the jobs.
- 40 “Manpower planning is the process of determining manpower requirements and the means of meeting those requirements in order to carry out the integrated plan of the organization”. Elucidate this statement and explain why manpower planning is considered as an important aspect of the total management process.
- 41 Differentiate job analysis from job description. Explain how job analysis and job description are essential tools of human resource management and illustrate with appropriate examples how these tools are used for managing human resources.
- 42 State Bank of India has lost a lot of customers in the last few years to multinational banks that adopt a modern operational style preferred by customers. As part of an organizational revamp, State Bank of India authorities have decided to study all existing jobs and redesign the work content, if necessary. Describe any three techniques that State Bank of India can use to collect information for analyzing jobs.
- 43 Discuss the similarities and differences between job analysis and competency models.
- 44 Identify the three key elements of the human resources planning model and discuss the relationships between them.
- 45 Explain the difference between the firm’s corporate strategy and business strategy. Why do firms need to look into both aspects?
- 46 Discuss the various methods by which job analysis can be completed. Compare and contrast these methods, noting the pros and cons of each.
- 47 The job characteristic model has five components that enhance employee job skill variety, task identity, task significance, autonomy and feedback. Give an example illustrating how each component can be used to improve the organization and the job of the employee.
- 48 Explain the principle of job design and their application referring to relevant practical examples.
- 49 What is ‘Ergonomics’? What ergonomic considerations must be kept in mind while designing jobs and work schedules?
- 50 Organization needs to attract the best Human Resource for which it should develop the policy, describe.

51. How does Job analysis relate to the various HRM processes in the organisations?
52. What is the role of HR in environmental assessment as part of the strategic planning process?
53. “HR Planning is a precondition for efficient management of human resources.” Elucidate
54. “As the business becomes increasingly global, HRP becomes more significant and complex”
Analyse the statement
55. What are the competitive challenges of workforce while technology changes happen?
56. What role does an HR manager perform in acquiring suitable manpower?
57. What is job-analysis? How are jobs designed?

UNIT - III

I Test Your Skills:

(a) Multiple Choice Questions:

- 1 Selection is concerned with_____
 - (a) The activity to select a suitable pool of candidates.
 - (b) Always stimulating by the departure of an employee.
 - (c) Always ascertaining a candidates personality to ensure a suitable fit.
 - (d) Applying appropriate techniques and methods to select a candidate.
- 2 Career planning involves determination of path of movement of an individual over-time
 - (a) Lateral
 - (b) Upward
 - (c) Downward
 - (d) Stationary
- 3 Some of the most popular methods of attracting applicants include:
 - (a) Radio and TV advertisement
 - (b) Press advertising
 - (c) Employee referral schemes
 - (d) Commercial job boards
- 4 Selection methods can include:
 - (a) Interviews
 - (b) Ability tests

- (c) References
 - (d) A trial period
- 5 The most popular form of interview is _____
- (a) The situational interview
 - (b) The competency based interview
 - (c) The biographical interview
 - (d) The unstructured interview
- 6 The interview is used as a method for determining _____
- (a) The personality of the candidate.
 - (b) The degree of fit between the applicant and the organizational culture.
 - (c) His/her age.
 - (d) Physical attributes.
- 7 MBO was first founded by: -
- (a) Ulrich in 1997
 - (b) Mohram and Mohram in 1995
 - (c) Purcell in 2001
 - (d) Drucker in 1955
- 8 _____ may be defined as sequence of separate, but related work activities providing for continuity, order and meaning in a person's life.
- (a) Occupation
 - (b) Job
 - (c) Career
 - (d) Task
- 9 Which of the following is not a modern method of Performance appraisal?
- (a) 360 Degree Appraisal
 - (b) HRA
 - (c) BARS
 - (d) GRS
- 10 Potential of employees can be judged by: -
- (i) Reviewing present performance
 - (ii) Analyzing personality traits
 - (iii) Re-looking past experience
 - (iv) Considering age and qualifications
 - (v) Explaining unused knowledge and skills of an employee

- (a) All of the above
 - (b) i, ii, iii and iv
 - (c) i, ii, iv and v
 - (d) i, ii, iv and v
- 11 Job Evaluation helps in assessing
- (a) Number of employees to be hired
 - (b) Relative value of various jobs
 - (c) Performance
 - (d) Safety
- 12 If a single characteristic of a candidate affects the judgment of the interviewer, it is due to
- (a) leniency
 - (b) projection
 - (c) halo effect
 - (d) stereotyping
- 13 Which of the following is a Quantitative method of Job Evaluation?
- (a) Job Comparison
 - (b) Job Classification
 - (c) Factor Comparison
 - (d) None of the above
- 14 Value of Job, employees' contribution, and performance form the basis for
- (a) Demotion
 - (b) Rewards
 - (c) Transfer
 - (d) Dismissal
- 15 Which of the following is not a performance factor?
- (a) Behavior
 - (b) Quality and quantity of work
 - (c) Attitudes
 - (d) Dependability
- 16 Appraisals are oriented mostly towards:
- (a) Salary revision
 - (b) Performance
 - (c) Promotion
 - (d) Motivation

- 17 Intrinsic Rewards exclude:
- (a) Stock Options
 - (b) Participation in decision making
 - (c) More Responsibility
 - (d) Interesting work
- 18 Attracting, motivating and retaining are the functions of:
- (a) Training
 - (b) PA
 - (c) T & D
 - (d) Compensation
- 19 Remuneration includes:
- (a) Gifts
 - (b) Transfers
 - (c) Training
 - (d) Bonus
- 20 Educating the employees and providing them orientation is termed as:
- (a) Introspection
 - (b) Training
 - (c) Retrospection
 - (d) Induction
- 21 _____ method of HR Accounting assumes that there is no direct relation between costs incurred on an individual and his/her value to the organization at any particular point of time.
- (a) Asset multiplier
 - (b) Replacement
 - (c) Current purchasing power
 - (d) Standard cost
- 22 The following steps are involved in developing an HRIS: -
- (i) Systems design
 - (ii) System testing and implementation
 - (iii) Preliminary system analysis
 - (iv) System monitoring and evaluation
 - (v) System engineering
- (a) i, ii, iii, iv and v

- (b) iii, i, v, ii and iv
 - (c) iii, v, i, ii and iv
 - (d) iii, i, ii, v and iv
- 23 Which of the following is an OJT method?
- (a) Apprenticeship training
 - (b) Vestibule training
 - (c) Committee assignments
 - (d) Classroom training
- 24 An effective HR Report is not: -
- (a) Subjective
 - (b) Understandable
 - (c) Reader-oriented
 - (d) None of the above
- 25 The type of transfer made to retain long service employees is termed as: -
- (a) Replacement transfer
 - (b) Versatility transfer
 - (c) Shift transfer
 - (d) None of the above
- 26 A situation in labor – management negotiation whereby management prevents union members from returning to work is called _____.
- (a) Grievance
 - (b) Strike
 - (c) Arbitration
 - (d) Lockout
- 27 _____ is defined as activities people perform to acquire, enhance, and use power and other resources to obtain their preferred outcomes in a situation of uncertainty or disagreement.
- (a) Organizational politics
 - (b) Executing authority
 - (c) Collective bargaining
 - (d) Position power
- 28 Protection from discrimination, safe working conditions and union formulation are _____ rights, provided to employees.
- (a) Contractual

- (b) Individual
 - (c) Statutory
 - (d) Organizational
29. A career stage in which one begins to search for work and finds a first job is:
- (a) Exploration period
 - (b) Establishment period
 - (c) Middle stage
 - (d) None of the given options
30. Barriers to career advancement include:
- (a) Lack of time
 - (b) Rigid job specifications
 - (c) Short-term focus
 - (d) All of the given options
31. What tactic will employers likely have to take to fill openings left by retiring employees?
- (a) Instituting flexible work hours
 - (b) Providing elder care
 - (c) Hiring more women
 - (d) Rehiring retirees
32. Career Development is:
- (a) A formal approach taken by an organization to help its people acquire the skills and experience needed to perform current and future jobs
 - (b) An employee's progresses vertically upward in the organization from one specific job to the next.
 - (c) Both a vertical sequence of jobs and a series of horizontal opportunities.
 - (d) Self-understanding for future jobs. Then, the person is in a position to establish realistic goals and determine how to achieve these goals.
33. _____ can provide an opportunity for the employee to share in decision making, to learn by watching others, and to investigate specific organizational problems.
- (a) Lectures & Seminars
 - (b) Assistant to Position
 - (c) Committee Assignments
 - (d) Simulations:

34. _____ is a career-path method recognizing that technical specialists can and should be allowed to continue to contribute their expertise to a company without having become managers.
- (a) Demotion
 - (b) Lateral skill path
 - (c) Dual Career Path
 - (d) None of the given options
35. Training instruction for a small group, which employs such techniques as role-playing or simulation etc. and encounters give and take sessions and problem-solving techniques is called:
- (a) Career counseling
 - (b) Workshop
 - (c) Development Plan
 - (d) On the job training
36. Barriers to career advancement include:
- (a) Lack of time
 - (b) Rigid job specifications
 - (c) Short-term focus
 - (d) All of the above
37. A system of retirement benefits that provides benefits like disability insurance, survivor's benefits, and Medicare is called _____.
- (a) Social Security
 - (b) Unemployment Compensation
 - (c) Workers' Compensation
 - (d) Security benefit
38. A process that significantly affects organizational success by having managers and employees work together to set expectations, review results, and reward performance.
- (a) Management by Objectives
 - (b) Performance Appraisal
 - (c) Performance Management
 - (d) Organizational Planning
39. _____ is solely responsible for managing individual's career.
- (a) Individual
 - (b) Team
 - (c) Organization

- (d) HR Manager
40. What is another term for 360-degree feedback?
- (a) Feedback loop
 - (b) Multi colour assessment
 - (c) Upward feedback
 - (d) Circle feedback
41. Which of the following is categorized as an indirect payment portion of employee compensation?
- (a) Wages
 - (b) Salaries
 - (c) Employer paid insurance
 - (d) Commissions
42. A system of retirement benefits that provides benefits like disability insurance, survivor's benefits, and Medicare is called _____.
- (a) Social Security
 - (b) Unemployment Compensation
 - (c) Workers' Compensation
 - (d) Security benefit
43. Total compensation constitutes of
- (a) Direct rewards
 - (b) Indirect rewards
 - (c) Both a and b
 - (d) None of the above
44. The test that measures ability to learn and to perform the job is called
- (a) Aptitude Test
 - (b) Work sample test
 - (c) Vocational interest test
 - (d) Job knowledge test
45. The jobs having challenging assignments, career oriented and having good remuneration increase
- (a) Government influence
 - (b) Recruiting cost
 - (c) Image of organization
 - (d) Attractiveness of job

46. A process that significantly affects organizational success by having managers and employees work together to set expectations, review results, and reward performance.
- (a) Management by Objectives
 - (b) Performance Appraisal
 - (c) Performance Management
 - (d) Organizational Planning
47. The evaluator uses a list of behavioral descriptions and checks off those behaviors that apply to the employee. This method of appraisal is called
- (a) Forced-Choice Appraisal
 - (b) Forced Distribution Appraisal
 - (c) Checklist Appraisal
 - (d) Behaviorally Anchored Rating Scales
48. Any compensation method that ties pay to the quantity or quality of work the person produces is called
- (a) Gain-sharing Plan
 - (b) Incentive Plan
 - (c) Compensation Plan
 - (d) Pay for performance Plan
49. Organization puts maximum effort in measuring performance of organizational people because
- (a) It makes procedures cost effective
 - (b) It helps in detecting the problems
 - (c) It leads to product innovation
 - (d) It assists in implementing new technology
50. One of the major barriers to career advancement experiencing by working ladies is;
- (a) Difficulty in balancing work and family life
 - (b) Top management is usually male oriented
 - (c) Lack of educational opportunities
 - (d) Common perception that woman cannot be better boss
51. The primary aim of recruitment and selection process is to
- (a) meet the high labour turnover
 - (b) hire the best individuals at optimum cost
 - (c) ensure the availability of surplus in the case of sickness and absence
 - (d) none of the above

52. Recruitment is widely viewed as a _____ process.
- (a) positive
 - (b) negative
 - (c) both positive and negative
 - (d) none of these
53. A prerequisite for a successful and efficient recruitment programme is to have a(n)
- (a) corporate policy
 - (b) HR policy
 - (c) recruitment policy
 - (d) health and safety policy
54. The process of developing an applicants' pool for job openings in an organization is called
- (a) hiring
 - (b) recruitment
 - (c) selection
 - (d) retention
55. The process of selection of employees is usually influenced by
- (a) rules and regulations
 - (b) strategies and objectives
 - (c) principles and programmes
 - (d) none of the above
56. The purpose of an application blank is to gather information about the
- (a) company
 - (b) candidate
 - (c) questionnaire or interview schedule
 - (d) competitors
57. Which of the following is used to measure the various characteristics of the candidate?
- (a) physical test
 - (b) psychological test
 - (c) attitude test
 - (d) proficiency test

58. The _____ interview tends to be more reliable and valid because all applicants are asked the same questions.
- (a) Directive
 - (b) Job-related
 - (c) Stress
 - (d) Unstructured
59. Structured interviews help interviewers to conduct better interviews because they:
- (a) Enhance ability to withstand legal challenge.
 - (b) Ask about a candidate's behavior.
 - (c) Ask all candidates the same questions.
 - (d) Reduce opportunity to pursue points of interest as they develop.
60. A personal interview's usefulness can be undermined by:
- (a) First impressions.
 - (b) Contrast errors.
 - (c) Pressure to hire.
 - (d) All of the above.
61. In an organisation initiating career planning, the career path model would essentially form the basis for
- (a) Placement
 - (b) Transfer
 - (c) Rotation
 - (d) All of the above
62. The whole process of conducting a 360 – Degree Feedback process in any Organisation could last about _____.
- (a) 1.5 to 3 months
 - (b) 3 to 6 months
 - (c) 6 to 9 months
 - (d) 9 to 12 months
63. The process which is continuous and stops only when the organisation ceases to exist
- (a) Training
 - (b) Job evaluation
 - (c) Hiring
 - (d) All of the above

64. _____ is the simple act of comparison & learning for organisational improvement
- (a) Benchmarking
 - (b) Feedback
 - (c) Ranking
 - (d) Job evaluation
65. HRD process variable include
- (a) Role clarity
 - (b) Work planning
 - (c) Better communication
 - (d) All of the above
66. A key HR role in the firm will be multidisciplinary consulting around
- (a) Individual
 - (b) Team
 - (c) Business unit
 - (d) All of the above
67. The three phases of recruitment process are
- (a) Planning, Implementing, Evaluating
 - (b) Planning, Implementing, Screening
 - (c) Planning, Implementing, Enrichment
 - (d) Planning, Screening, Evaluating
68. The role of the organisation in career planning is to introduce & strengthen systems to ensure _____ of employees
- (a) Career progression
 - (b) Self development
 - (c) Economical Development
 - (d) Skill enhancement
69. What is the type of interview which lists the questions ahead of time?
- (a) structured interview
 - (b) unstructured interview
 - (c) situational interview
 - (d) behavioral interview
70. How do situational interviews differ from behavioral interviews?

- (a) Situational interviews are based on an applicant's responses to actual past situations
- (b) Situational interviews are based on how an applicant might behave in a hypothetical situation
- (c) Situational interviews ask applicants job-related questions to assess their knowledge and skills.
- (d) Behavioral interviews ask applicants to describe their emotions in different hypothetical situations.

Ans. (1)(d), (2)(b), (3)(b), (4)(d), (5)(d), (6)(b), (7)(d), (8)(c), (9)(d), (10)(a), (11)(b), (12)(c), (13)(c), (14)(c), (15)(a), (16)(b), (17)(a), (18)(d), (19)(d), (20)(d), (21)(a), (22)(b), (23)(c), (24)(a), (25)(a), (26)(d), (27)(a), (28)(c), (29)(b), (30)(d), (31)(d), (32)(a), (33)(c), (34)(c), (35)(b), (36)(d), (37)(a), (38)(c), (39)(a), (40)(b), (41)(c), (42)(a), (43)(c), (44)(a), (45)(d), (46)(c), (47)(c), (48)(d), (49)(b), (50)(a), 51(a), 52(a), 53(b), 54(b), 55(b), 56(b), 57(b), 58(a), 59(c), 60(d), 61(d), 62(a), 63(c), 64(a), 65(d), 66(d), 67(a), 68(a), 69(a), 70(b).

II Short Answer Type Questions:

- 1 Recruitment is a positive process while selection is a negative one – Comment.
- 2 Difference between recruitment and Selection.
- 3 External Sources of Recruitment
- 4 Internal sources of recruitment.
- 5 Meaning of Third party Recruitment
- 6 Role of Application Blank in Selection Process
- 7 Growing importance of employee referrals.
- 8 Role of psychological tests in selection.
- 9 Distinguish between career planning and manpower planning.
- 10 How can the career planning process be made effective?
- 11 Explain the advantages and limitations of career planning.
- 12 Halo effect in Performance Appraisal
- 13 Advantages of potential appraisal.
- 14 What is post appraisal interview?
- 15 Write short note on Assessment Centre
- 16 Write short note on Behaviorally Anchored Rating Scales
- 17 What are the qualities required of a successful human resource manager?
- 18 Describe the status of a human resource manager.
- 19 Explain briefly the jobs of human resource executives in a business organization.
- 20 “A Human resource manager is a change agent in the organization”. Elucidate.

- 21 “Every manager is a H.R. Manager.” Comment.
- 22 Training Vs Development.
- 23 Uses of Job Evaluation
- 24 Wage incentive plan.
- 25 Individual versus Group Incentives.
- 26 Explain internship training.
- 27 Elements of 360-degree appraisal.
- 28 Minimum Vs Fair wage.
- 29 Career planning Vs succession planning
- 30 Profit-sharing does not have motivational value.
- 31 How do working conditions affect employee health?
- 32 What are occupational hazards and diseases?
- 33 Explain the measures that should be taken to protect employee health in industries.
- 34 What do you understand by the term industrial relations? Explain the objectives of industrial relations.
- 35 Why do industrial dispute arise? How can such disputes be settled?
- 36 Job Enrichment is vertical loading whereas Job Enlargement is horizontal loading. Comment.
- 37 Discuss the concept of Broad banding.
- 38 Write short notes on:
 - (a) Contemporary performance appraisal
 - (b) Career Development Initiatives
39. Write short notes on any 3 of the following:
 - (a) Internal Sources of Recruitment
 - (b) Employee Empowerment
 - (c) Selection Models
40. “Accurate appraisal of performance is very difficult.” In the light of this statement, discuss the problems in performance appraisal.
41. “Job Evaluation determines the worth of a job and not the job holder.” Comment.
42. “Compensation refers to both intrinsic and extrinsic rewards.” Explain the statement and state briefly the objectives that guide the design of compensation system in organisations.
43. What are the causes of unsatisfactory labour relations? Suggest measures for healthy labour relations.
44. Describe the 5-step training process.
45. Summarize and briefly describe training methods available and list the distinctive advantages of each method.
46. Outsourcing of HR functions is a valuable organizational strategy because this strategy reduces costs. Comment.
47. How can employee requirement and availability forecasts be most helpful in the recruiting

process?

48. In the selection process, test validity refers to the accuracy with which the test measures what it purports to measure nor fulfills the function it was designed to fill. Comment.
 49. How can the orientation programme help employees in increasing employee efficiency?
 50. What are the benefits of the balanced scorecard approach?
 51. The balanced scorecard just the latest management fad that will soon pass away. Comment.
 52. What are the five main things an organization would do to recruit and retain a more diverse workforce.
 53. How do you explain the fact that structured interviews regardless of content are generally more valid than unstructured interviews for predicting job performance.
 54. Differentiate between roles of HR Generalist and HR Specialist.
-

III Long Answer Type Questions:

- 1 Discuss in detail the various methods of recruitment in organizations.
- 2 What is the significance of selection in organizations? Describe the steps involved in the selection process. Why selection is called a negative process?
- 3 What are the various hurdles in selection process? State the objective of good selection policy.
- 4 How can recruitment be made effective? What role can psychometric testing play in selection?
- 5 What are the different tests used in the selection of new employees? Explain with the help of any industry.
- 6 What are the do's and don'ts you will keep in mind while recruiting a more diverse force? Discuss the selection techniques in detail.
- 7 What do you mean by Recruitment Policy? Explain in detail
- 8 What are the limitations of Interviewing in Selection Process?
- 9 How will you identify training needs of a company? Explain with the help of an example.
- 10 What are the different Techniques of Training?
- 11 Distinguish between training and development. Explain the objectives and techniques of management development and its influence on the HR strategy in an organization.
- 12 Discuss the methods used for training the operative employees.
- 13 Discuss the importance of training and development in organizations. How does the top management's commitment to training needs help in growing employees?
- 14 "Designing the training program without the identification of training needs is just to justify the training manager's existence in the organization." Do you agree? Justify your answer. How will you identify the training needs in an organization?

- 15 Explain the concept of career. Why is career management important in the contemporary corporate environment? Illustrate with examples how differently the organization and the employee view career management.
- 16 “Career planning and management is essential for long-run survival and satisfaction of both employees as well as the organizations.” Explain.
- 17 What is career planning process? What are the different steps involved in this process?
- 18 “The career desired and demanded by an individual must be provided by the organization employing him.” Do you agree with this? Give reasons.
- 19 What is meant by performance appraisal and performance review? Explain how performance appraisal can be made more effective.
- 20 “Performance appraisal on pre-determined criteria is considered to eliminate the subjectivity in appraisal system.” Critically evaluate this statement.
- 21 Describe the different methods of performance appraisal and which method in your opinion is the most appropriate. Justify.
- 22 Explain performance appraisal. What are the objectives of performance appraisal? Explain the criteria to be used to measure performance.
- 23 “Performance Appraisal does not stop at appraising the employees; it goes on to managing performance”. Elaborate.
- 24 Describe, in detail, the process of performance appraisal. How do errors creep in performance appraisal?
- 25 “Accurate appraisal of performance is very difficult”. In the light of this statement discuss the problems in performance appraisal.
- 26 What is job evaluation? Describe the process of evaluating a job.
- 27 How is job evaluation different from job grading?
- 28 Explain ‘point method’ of job evaluation? Give its merits and demerits
- 29 What is Ranking Method of Job Evaluation? Give its merits and demerits.
- 30 Explain Factor comparison method of Job evaluation.
- 31 Explain the importance and characteristics of job evaluation.
- 32 “A good human resource manager is no longer just a hirer and firer of men.” In the light of this statement, explain the duties of a human resource manager.
- 33 “Management of human resource is the responsibility of every manger and there is no need for a separate human resource department.” Explain critically.
- 34 Discuss the main functions, duties and responsibilities of a human resource manager in a modern industrial organization.
- 35 List the various objectives of compensation management. Give the major factors influencing compensation policy.
- 36 Differentiate between wage and salary and examine the role of fringe benefits in motivating the employees.
- 37 What are the various criteria of promotion? Examine their relative merits and demerits.

- 38 What are the essentials of sound Promotion policy? Seniority or merit-which basis would you recommend for an IT company operating in several countries.
- 39 Explain the concepts of 'Base compensation' and 'supplementary compensation'.
- 40 What does an organization expect an effective compensation system to do for it? What corresponding types of compensation will meet these objectives?
- 41 What are the elements of compensation? Why the importance of flexible compensation is increasing as contrast to fixed compensation?
- 42 Give two examples of when you would suggest using team or group incentive programs rather than individual incentive programs.
- 43 What are wage surveys? What is the use of wage surveys in fixing compensation for employees in any organization?
- 44 How are job evaluation and compensation management interlinked? What are the different constituents of a compensation plan?
- 45 What do you understand by competency based training and how do you assess it.
- 46 During the recent years there has been a rapid increase in the compensation packages offered to managerial employees of the private sector especially the MNCs. Explain the current phenomenon and examine their implications.
- 47 What do you mean by incentives? How do financial incentives differ from non-financial incentives in motivating employees?
- 48 What do you mean by performance based compensation? How is it beneficial to both the organization and the employees?
- 49 "Industrial accidents are expensive". Explain the significance of the statement and describe the various measures that an employer should take statutorily as well as voluntarily for the prevention of accidents.
- 50 "Accidents are the consequence of two basic factors—technical and human." Elaborate on those two factors and describe the components of an effective accident prevention programme.
- 51 Describe the social and economic importance of a health and safety programme in a company. Why is the support of top management so vital to the success of this programme?
- 52 Explain the present state of labor management relations in India. What measures would you suggest to make it more cooperative?
- 53 What is a registered trade union? Discuss the privileges and liabilities of a registered trade union.
- 54 Discuss the strategy which an organization should adopt in dealing with a trade union. How can an organization become union free?
- 55 What do you mean by grievance procedure? Discuss the steps of model grievance procedure.
- 56 Bring out the steps in the Training and Development process. How would you measure the effectiveness of a training program designed to improve loan processing in a financial services institution?

- 57 What is compensation? Describe how you can ensure that a compensation process is suitable for employees?
- 58 What role can a manager play in a union-organizing effort? If you were asked as a manager to provide input for the purposes of a collective bargaining process, what type of information would you provide?
- 59 Explain the need of scientific selection process in an organization. "It is argued that better not to select rather than selecting a wrong individual." Justify.
- 60 Discuss the objectives of job evaluation. Also explain the various factors affecting the method of job evaluation.
- 61 Explain the different types of training method with particular reference to training middle level manager in an organization. Illustrate with an example?
- 62 Placing yourself in the role of Human Resource Manager, prepare memorandum for possible submission to the Chairman outlining the importance of rating and suggesting way of handling problems arising out of rating.
- 63 Prepare a merit rating Performa which you feel would be ideal to appraise the merit of non-supervisory staff.
- 64 Assume that you are the Human Resources Manager facing the challenge of interviewing and hiring 100 workers within 30 days. Pre-employment testing has been completed, and background investigations and reference checks have reduced the qualified applicant pool to 350 applicants. You have a staff of experienced interviewers available to assist you. Describe how you will decide what type of interviews you will conduct and why you chose that particular method of interviewing. Explain your reasons for not utilizing other methods. This will necessitate comparing the advantages and disadvantages of each type of interview.
- 65 What is Performance Appraisal? Discuss various methods and suggest which method of Performance Appraisal is best suited, in your view, for faculty of higher educational institutions with justifications.
- 66 Give an over view of various health and social security measures that organizations extend to their employees in India.
- 67 State the differences and similarities between performance management and performance appraisal.
- 68 Discuss the advantages and disadvantages of competency or skill based pay systems.
- 69 If you are implementing an employee stock option plan, what key factors would you consider?
- 70 Outline an evaluation procedure for a training programme designed to teach sales principles and strategies.
- 71 What are HR Competencies? How should these be developed in every manager in organization?
72. List and briefly explain each of the steps in the training process.
73. What are the key principles to Balanced Scorecard. Explain the challenges one encounters

- while developing and deploying it.
74. There are several ways to conduct a selection interview. Explain and illustrate the basic ways in which one can classify selection interviews.
75. Define career planning and career development. Explain the career development initiatives.

UNIT - IV

I Multiple Choice Questions:

- 1 Statement describing the values, objectives and goal of HR department is called ____
- (a) HR vision
 - (b) HR strategy
 - (c) HR mission
 - (d) HR design
- 2 Method of data collection to back up a forecast of personnel needs ____
- (a) IPS
 - (b) PEEP
 - (c) PAIR
 - (d) HRIS
- 3 Minimum acceptable qualifications required for a job are termed as: -
- (a) JS
 - (b) JD
 - (c) JA
 - (d) Job Appraisal
- 4 Job Enlargement means: -
- (a) Horizontal expansion
 - (b) Vertical expansion
 - (c) Diagonal expansion
 - (d) Circular
- 5 That which adds more of the same type of duties requiring same skills is: -
- (a) Job progression
 - (b) Job enrichment
 - (c) Job enlargement
 - (d) Job relatedness

- 6 Intelligence and memory of a person constitute_____ characteristics: -
- (a) Psychological
 - (b) Physical
 - (c) Mental
 - (d) Social
 - (e) Personal
- 7 The use of process criteria in job selection means that the individual is being assessed on _____.
- (a) The number of tasks they can process simultaneously.
 - (b) A methodological approach to task completion.
 - (c) How many tasks can be processed in a set amount of time.
 - (d) The right way to complete a task successfully.
- 8 Chronic stress is the stress that wears at people day after day. Which of these is an example of chronic stress?
- (a) An unhappy marriage
 - (b) Ongoing money problems
 - (c) Dissatisfaction with a job
 - (d) All of the given options
- 9 Stress can affect not only your health, but also other aspects of your life. What else can be affected by stress?
- (a) Family relationships
 - (b) Work performance
 - (c) Your attention to safety
 - (d) All of the given options
- 10 _____ is the process of assessing progress toward strategic goals and taking corrective action as needed.
- (a) Strategic management
 - (b) Strategic planning
 - (c) Strategic control
 - (d) Diversification
- 11 Which of these items would be in the highest security category of a typical HRIS?
- (a) Employee name
 - (b) Former employers
 - (c) Salary
 - (d) Work location

- 12 Playing the role of _____ requires designing and delivering efficient and effective HR systems, processes, and practices.
- (a) Administrative Agent
 - (b) Change Agent
 - (c) Strategic Partner
 - (d) Employee Advocate
- 13 A system used to acquire, store, manipulate, analyze, retrieve, and distributed information related to the company's human resources is called a(n) _____
- (a) HRIS
 - (b) Progressive discipline system
 - (c) IRS
 - (d) Contingent workforce system
- 14 Matching the job description with the individuals' qualification is an important aspect of;
- (a) IS
 - (b) MIS
 - (c) HRIS
 - (d) DBMS
- 15 . Which of the following reflects the relationship between MIS & HRIS?
- (a) Both are same
 - (b) MIS is one aspect of HRIS
 - (c) HRIS is one aspect of MIS
 - (d) No relationship exists
- 16 Several factors radically changed attitudes towards human resource information systems during
- (a) During the 1960s and 1970s
 - (b) During the 1970s and 1980s
 - (c) During the 1990s and 2000s
 - (d) During the 1950s and 1960s
- 17 System used to collect, record, store, analyze, & retrieve data related to an organization, is termed as:
- (a) IS (Information System)
 - (b) MIS (Management Information System)
 - (c) HRIS (Human Resource Information System)
 - (d) DBMS (Data Base Management System)

18. Organizations put maximum effort in measuring performance of organization people because;
- (a) It makes procedures cost effective
 - (b) It helps in detecting the problem
 - (c) It leads to product innovation
 - (d) It assists in implementing new technology
19. Willingness, capacity & opportunity to perform are said to be;
- (a) Performance outcomes
 - (b) Determinants of performance
 - (c) Performance appraisals
 - (d) Types of performance standards
20. One of the major barriers to career advancement experiencing by working ladies is;
- (a) Difficulty in balancing work and family life
 - (b) Top management is usually male oriented
 - (c) Lack of educational opportunities
 - (d) Common perception that woman can not be better boss
21. The jobs having challenging assignments, career oriented and having good remuneration increase
- (a) Government influence
 - (b) Recruiting cost
 - (c) Image of organization
 - (d) Attractiveness of job
22. Following are the basic principles or conditions that facilitate learning except
- (a) Participation
 - (b) Relevance
 - (c) Feedback
 - (d) Education
23. The basic skills possessed by the individual that are required to give certain performance are termed as:
- (a) Ability
 - (b) Motivation
 - (c) Experience
 - (d) Performance

24. System used to collect, record, store, analyze, & retrieve data related to an organization, is termed as_____
- (a) IS (Information System)
 - (b) MIS (Management Information System)
 - (c) HRIS (Human Resource Information System)
 - (d) DBMS (Data Base Management System)
25. Which one of the following is NOT the source of workforce diversity?
- (a) Age
 - (b) Gender
 - (c) Education
 - (d) Resentment
26. One of the most popular methods of increasing employee responsibility and control is _____.
- (a) Outsourcing
 - (b) "Military model" of management
 - (c) HRIS
 - (d) Work teams
27. How has technology changed HRM practices?
- (a) Recruiting using the web generates smaller, more focused applicant pools.
 - (b) Employee training is offered through scheduled classes rather than on demand.
 - (c) Electronic resumes take less time to evaluate than paper resumes.
 - (d) None of the given options.
28. How do companies facilitate workforce diversity
- (a) Rely on external support systems for minority workers.
 - (b) Encourage employees to challenge the beliefs and values of other employees.
 - (c) Build in accountability through surveys and audits.
 - (d) Reinforce traditional values.
29. Employee involvement requires extensive additional HRM activity in which of these areas?
- (a) Training
 - (b) Benefits
 - (c) Labor negotiation
 - (d) Marketing
30. Shifting from manual to computerized system is resulted due to_____

- (a) Workforce diversity
 - (b) Technological advancement
 - (c) Stake holder's involvement
 - (d) Globalization
31. Which of these items would be in the highest security category of a typical HRIS?
- (a) Employee name
 - (b) Former employers
 - (c) Salary
 - (d) Work location
32. One of the major barriers to career advancement experiencing by working ladies is_____
- (a) Difficulty in balancing work and family life
 - (b) Top management is usually male oriented
 - (c) Lack of educational opportunities
 - (d) Common perception that woman can not be better boss
33. Alternative work arrangements include all of the following EXCEPT_____
- (a) Part-time work
 - (b) Flexible hours
 - (c) On-site child care
 - (d) Job sharing
34. Today's managers understand that the success of any effort at improving quality and productivity must include _____
- (a) Quality management programs
 - (b) Customer service improvements
 - (c) Employee's participation
 - (d) Manufacturing simplification
35. In which of the following alternative work arrangements people choose to work from home with the help of a PC without reporting to an office?
- (a) Broadbanding
 - (b) Cafeteria plan
 - (c) Groupware
 - (d) Telecommuting.
36. HR challenges which might be faced by internal companies include:

- (a) The needs for a diverse work-force.
 - (b) The relative underdevelopment of HR functions.
 - (c) Knowledge of national employment law.
 - (d) Knowledge of cultural norms and values.
37. Cultural shock which is often the outcome of the negative experience of moving from a familiar culture to one that is unfamiliar is important to understand in the context of internationalization because:
- (a) It can effect soldiers returning from war zones.
 - (b) It can effect students on 'gap year' experiences.
 - (c) It can impact on individuals taking overseas assignments.
 - (d) Friends and families reunited.
38. Key to successful management of HR processes is the ability to?
- (a) Travel abroad
 - (b) Recruit local managers
 - (c) Identify key skills and competencies required for working overseas
 - (d) Having appropriate training systems
39. Which of the following statements best describes the concept of 'strategic awareness'?
- (a) Managers' understanding of the organization's history, competencies, and current strategy
 - (b) Managers' understanding of current strategy and its effectiveness
 - (c) Managers' understanding of the strategic options available to the organization
 - (d) Managers' understanding the organization's strategy, its effectiveness, and the potential avenues for change
40. Which of the following is associated with successful strategies?
- (a) Creating superior value to customers
 - (b) Exploitation of key success factors
 - (c) Creating and maintaining strategic fit
 - (d) All of the above
41. International HRM includes
- (a) Host Country Nationals
 - (b) Parent Country Nationals
 - (c) Third Country Nationals
 - (d) All of the above

42. In International HRM, when all the key positions are filled with the home country nationals, the approach is called :
- (a) Ethnocentric
 - (b) Polycentric
 - (c) Geocentric
 - (d) Regiocentric
43. A parent country national sent on long term assignment to the host country operations is :
- (a) Inpatriate
 - (b) Expatriate
 - (c) Repatriate
 - (d) None of the above
44. When the foreign subsidiaries are staffed with host country nationals, then the approach follows is :
- (a) Ethnocentric
 - (b) Polycentric
 - (c) Geocentric
 - (d) Regiocentric
45. _____ is the term used to define planned elimination of jobs in an organization.
- (a) Downsizing
 - (b) Decruitment
 - (c) Recruitment
 - (d) Planned firing
46. Which of the following statements is true of current situations in human resource management?
- (a) To improve work force diversity, managers need to narrow their approach to recruiting.
 - (b) Once a diverse pool of applicants is defined, a manager does not need to address discrimination as a problem.
 - (c) Recent research has shown that diversity makes moving into a work force harder for women and minorities.
 - (d) Some organizations are aggressively pursuing diversity efforts.
47. _____ creates an unpleasant work environment and undermines workers' ability to perform their job.

- (a) A workplace romance
 - (b) Diversity
 - (c) Sexual harassment
 - (d) Work-family imbalance
48. SHRM is also about strategic choice, which refers to
- (a) The processes and decisions that shape the organisation's philosophy towards its employees
 - (b) Managerial prerogative in decision - making
 - (c) Negotiating with trade unions or employee associations over the direction of the organisation
 - (d) Giving employees their 'say' in organisational concerns.
49. A distinction can be made between 'hard' and 'soft' types of HRM. Soft HRM can be characterized by:
- (a) Seeing people as organizational assets
 - (b) A quantitative approach to HRM
 - (c) A mutual commitment of employees and employers to the goals of the organisation
 - (d) Being driven by costs
50. Strategic human resource management aims to achieve competitive advantage in the market through :
- (a) Price
 - (b) Product
 - (c) People
 - (d) Process
51. In general, employees who feel they are treated fairly will:
- (a) be more likely to unionize.
 - (b) have lower retention rates.
 - (c) be more productive.
 - (d) have higher absence rates.
52. Human Resource departments serve a strategic role in most organizations because:
- (a) today's organizations are instituting HR practices aimed at gaining competitive advantage through their employees.
 - (b) Human Resource departments handle downsizing and layoff processes.
 - (c) globalization has reduced competition.
 - (d) the workforce is becoming less diverse.

53. Human Resources departments support organizational strategy implementation in all of the following ways EXCEPT:
- (a) restructuring efforts.
 - (b) instituting incentive plans, such as pay-for-performance plans.
 - (c) developing and marketing the organization's products and services.
 - (d) retraining employees for redesigned work.
54. HR-related guidelines for building effective self-directed teams include:
- (a) designating a strong leader as manager of the team.
 - (b) eliminating cross training so that workers can concentrate on their jobs.
 - (c) providing extensive training so that team members have the skills needed to do their jobs.
 - (d) assigning employees who dislike teams to work together as a team to overcome their resistance.
55. With regard to global HR management, HR practitioners should note that:
- (a) research indicates that a significant number of employees will leave the firm within a year or two of returning home after an international assignment.
 - (b) repatriation agreements are considered ineffective processes in today's international organizations.
 - (c) labor strikes occur very frequently in European countries.
 - (d) the adjustment of the employee's spouse and family to the new country is rarely a significant factor in employee performance.
56. An appropriate action for employers attempting to avoid unionization would be to:
- (a) threaten employees with loss of their jobs if they unionize.
 - (b) provide supervisory training regarding unfair labor practices and management effectiveness/leadership training.
 - (c) decrease compensation as a punishment for union organizing activity.
 - (d) initiate small but strategic layoffs.
57. Current global pressures that affect HR strategic management include all of the following EXCEPT:
- (a) employee skills deployment to the appropriate location.
 - (b) knowledge dissemination throughout the organization.
 - (c) identifying and developing employee talent on a global basis.
 - (d) stressing to employees that cultures are the same around the world.
58. As the workforce ages, more employees will likely need of which of the following benefits?

- (a) child care services
 - (b) long-term care benefits
 - (c) mental health benefits
 - (d) employer-sponsored cafeterias
59. The most commonly used approach to formulating an expatriate worker's pay is to equalize the employee's purchasing power across countries. This practice is known as:
- (a) a cost-benefit analysis.
 - (b) a balance sheet approach.
 - (c) an international profit and loss statement.
 - (d) pay for performance.
60. Common reasons for the failure of an international employee assignment include all of the following EXCEPT:
- (a) family's inability to adjust to the international assignment.
 - (b) employee's inability to adjust to the international assignment.
 - (c) inability to adapt to the local culture.
 - (d) dissatisfaction with the performance appraisal process.
61. Citizens of country other than host country or home country are
- (a) host country nationals
 - (b) expatriates
 - (c) home country nationals
 - (d) Third country nationals
62. Corporation orientation in which managers of host country understand, behavior and culture of host-country markets be best classified as
- (a) ethnocentric
 - (b) polycentric
 - (c) geocentric
 - (d) expat-centric
63. Non-citizen employees of a country in which they are working is classified as
- (a) expatriates
 - (b) subordinates
 - (c) coordinators
 - (d) none of above
64. The behavioural outcomes of stress can include:
- (a) poor memory.

- (b) absenteeism.
 - (c) burnout.
 - (d) depression.
65. Which of the following is a cognitive outcome of stress?
- (a) Frustration and aggression.
 - (b) Poor memory.
 - (c) Heart disease.
 - (d) Alcohol or substance abuse.
66. There is general agreement that the key component of burnout is:
- (a) emotional exhaustion.
 - (b) poor concentration.
 - (c) feelings of being trapped and helpless.
 - (d) Depression
67. Competitive advantage in form of human capital of organization is considered as
- (a) strategic human resource management
 - (b) workforce management
 - (c) effectivity management
 - (d) efficiency management
68. Concept in which pay for jobs that require similar skills, abilities and knowledge without taking duties into consideration is called
- (a) pay equity
 - (b) pay exemption
 - (c) pay primacy
 - (d) distributive pay
69. Duties of HR manager and staff functions consist of
- (a) Assisting line manager
 - (b) Implementing policies
 - (c) Directing tasks of people
 - (d) all of above
70. Use of data, facts, analytics and evaluated research for making decision is
- (a) Evidence based HRM
 - (b) High performance work system

- (c) Both A and B
- (d) none of above

Ans. (1)(c), (2)d), (3)(a), (4)(a), (5)(c), (6)(c), (7)(d), (8)(d), (9)(d), (10)(c), (11)(c), (12)(c), (13)(a), (14)(c), (15)(c), (16)(b), (17)(c), (18)(b), (19)(b), (20)(a), (21)(d), (22)(d), (23)(a), (24)(c), (25)(d), (26)(d), (27)(c), (28)(b), (29)(c), (30)(b), (31)(c), (32)(a), (33)(c), (34)(c), (35)(d), (36)(b), (37)(c), (38)(c), (39)(d), (40)(d), (41)(a), (42)(b), (43)(b), (44)(b), (45)(a), (46)(d), (47)(c), (48)(d), (49)(c), (50)(c), (51)(c), (52)(a), (53)(c), (54)(c), (55)(a), (56)(b), (57)(d), (58)(b), (59)(b), (60)(d), (61)(d), (62)(b), (63)(a), (64)(b), (65)(b), (66)(a), (67)(a), (68)(a), (69)(a), (70)(a).

II Short Answer Type Questions:

- 1 Traditional Vs Strategic HRM.
- 2 Concept of strategic HRM.
- 3 Role of HRM in strategy formulation.
- 4 Emerging strategic perspective on HRM
- 5 HR as a source of competitive Advantage
- 6 Business strategy and HRM
- 7 Differentiate policy from strategy and tactics.
- 8 What inter country differences affect human resource management?
- 9 Explain the complexities of international human resource management.
- 10 What is QWL? How will you measure it?
- 11 Explain the main dimensions of QWL.
- 12 Discuss the principles of QWL.
- 13 Suggest the measures for improving the QWL.
- 14 HR Audit Vs HR accounting.
- 15 Advantages of Human Resource Information System
- 16 What is business sustainability?
- 17 Write short note on Green Workplace.
- 18 What are some of the specific, uniquely international activities an international HR manager typically engages in?
- 19 Explain the significance of maintaining human resource records.
- 20 Discuss the essentials of a good record-keeping system.
- 21 What is human resource audit? Describe its objectives and significance.
- 22 Explain the report of human resource audit.
- 23 What is human resource accounting? In what way it is useful to the management of human resources?
- 24 Explain the information needs of human resource management.

25. How will you control the human resource costs of an organization?
26. Human Resource Audit is only a management fad. Comment.
27. Write short notes on Human Resource Accounting
28. Explain the scope and limitations of human resource accounting.
29. Discuss the alternative approaches that may be used for staffing executive positions in foreign countries.
30. How do you identify the surplus manpower in organization and how would you downsize it.
31. Explain the features of High Performing HR Systems
32. Briefly discuss the salient aspects of Talent Management
33. Write notes on:
 - (a) Human Resource Audit and Accounting
 - (b) Employee Empowerment
 - (c) HRIS
34. Research indicates that a significant number of employees will leave the firm within a year or two of returning home after an international assignment. Identify the reasons.
35. What key characteristics would you look for in selecting a prospective expatriate?
36. When a multinational firm hires local workers, what types of training are needed?
37. Identify the individual characteristics that impact how a person experiences stress.
38. What are the deterrents to the implementation of any global e-learning program.
39. Identify some of the global issues confronting women.
40. Explain the employee assistance program.

III Long Answer Type Questions:

1. “In today’s fast changing environment, HRM is an indispensable tool in the hands of organizations for gaining competitive advantage.” Critically evaluate this statement in the context of Corporate India.
2. The HRM function is has acquired strategic importance in organization due to economic liberalization & globalization”. Comment
3. Highlight the role of HR manager in a company using strategic HR. How would these roles be different from HR manager in a company not adopting strategic HR approach for managing their HR?
4. Discuss the Strategic Human Resource Management model in detail.
5. “HRP today has taken the front wheel role in organization’s strategic planning”. Discuss in detail.
6. Explain the need for a fit between corporate competitive strategies and HR strategies.
7. What are the contributions of human resource to strategic objectives of a firm? Is it possible to link HR planning with corporate objective?

- 8 What do you understand by globalization? Explain its impact on human resource management.
- 9 Discuss alternative approaches that may be used for staffing executive positions in foreign countries.
- 10 You are the human resource manager of a multinational enterprise that is about to send its first executives overseas to staff a new subsidiary. What special training would you undertake for these employees?
- 11 Explain the approaches that may be employed in formulating compensation of expatriates, stating the merit and demerits of each approach.
- 12 What problems arise in the repatriation of expatriates? How can these problems be overcome?
- 13 Explain the responsibilities of different parties concerned with QWL.
- 14 Describe the elements and measures of HR Accounting.
- 15 What do you understand by Human Resource Information System? Explain in detail.
- 16 As an HR executive, how would you devise HRIS (Human Resource Information System) for a mid sized organization?
- 17 Difference between Human resource Audit and Human Resource Accounting. How do these help in giving strategic advantage to organizations.
- 18 Discuss the compensation philosophies and approaches that have been used at various organizations. What have been the consequences of those philosophies and approaches?
- 19 You have been named Human Resources Manager for a company that has 180 employees had no formal base pay system. What steps will you take to develop such a coordinated system?
- 20 You are the HR manager of a firm that is about to send its first employees overseas to staff a new subsidiary. Your boss, the president, asks you why such assignments fail, and what you plan to do to avoid such failures. How do you respond?
- 21 How does appraising an expatriate's performance differ from appraising that of a home-office manager? How would you avoid some of the unique problems of appraising the expatriate's performance?
- 22 As a HR manager, what program would you establish to reduce repatriation problems of returning expatriates and their families?
- 23 How will you design and develop a human resource information system?
- 24 Write note on:
 - a. Human resource productivity
 - b. Human resource inventory
 - c. Recruitment cycle time
 - d. Present value and human resources
 - e. Employee relations index
- 25 Describe the main methods for valuation of human resources.

26. What are the major barriers that prevent an organization from taking a more strategic approach to HR? Why do they exist and how can they be overcome?
27. Explain the importance of human resources to strategy. Why do you think HR has become strategically relevant?
28. Explain the corporate level, business level and functional strategies. What are the HR decisions taken at every level?
29. How is business strategy developed? What is the role of HR in developing strategies?
30. “Strategic integration is the process of linking human resource management policies and activities to explicit business strategies.” Elaborate.
31. How much responsibility do companies have to help employees balance their work and personal lives? What options are available to help achieve work/life balance?
32. Discuss the various social security measures available to industrial workers in our country. Critically examine them.
33. “Work and life are mutually exclusive.” Elucidate the statement. Discuss the present practices of the corporate to strike a balance between the two.
34. “Human Resource Information System (HRIS) is not required in an organization where there is computerization.” Critically evaluate the statement and discuss the advantages of HRIS.
35. Examine companies’ alternatives for recruitment, selection, compensation, development and retention of international managers.
36. Your boss asks for suggestions about ways to reduce the high rate of attrition among repatriates. What advice would you offer.
37. Should organizations be investing more in employee wellness programs. Why or why not. How has the situation changed in India?
38. Give a detailed account of the impact of human resource management activities on productivity, quality of work life and the bottom line.
39. Discuss how E-HRM has changed the way in which organizations function. List out some e-initiatives taken up by organizations in India.
40. Explain the concept of whistle blowing and discuss it in the Indian context with the help of suitable examples.
41. What are flexible work schedules? How do they help in work life balance issues?
42. How are “Labour Relations” important? How can HR play a role as a facilitator and a mentor?
43. What are Work-Life balance issues for women employees? What can organisations do to facilitate the life of its women employees.
44. Write short notes on:
 - a. Green HRM
 - b. Social Security
 - c. Welfare Program

45. How does an organization choose to compete in the international environment, and how does each strategy affect its human resource function?

QUESTION BANK

E-BUSINESS

MS-114

QUESTION BANK
E-BUSINESS - MS 114
MBA II

UNIT - I

I Test Your Skills:

(a) Multiple Choice Questions:

- 1 Which of the following is not a telecommunication network?
 - (a) LAN
 - (b) MAN
 - (c) WAN
 - (d) None of the above

- 2 Web pages can be created using:
 - (a) HTML
 - (b) Microsoft Word
 - (c) MS Access
 - (d) None of the above

- 3 WWW stands for:
 - (a) World Wide Web
 - (b) World Wild Web
 - (c) World Wan Web
 - (d) All of the above

- 4 The services provided by Internet are:
 - (a) FTP
 - (b) Telnet
 - (c) Usenet
 - (d) All of the above

- 5 FTP stands for:
 - (a) File Transfer Protocol
 - (b) File Taking Protocol
 - (c) Fund Transfer Protocol
 - (d) Fund Transfer Packet

- 6 HTML stands for
- (a) Hyper Text Makeup Language.
 - (b) Hyper Text Markup Language
 - (c) High Text Mean Language
 - (d) Hyper Text mean Language
- 7 The E-commerce domain that involves business activity initiated by the consumer and targeted to businesses is known as:
- (a) Business to Business (B2B).
 - (b) Consumer to Business (C2B).
 - (c) Business to Consumer (B2C).
 - (d) Consumer to Consumer (C2C).
- 8 Delivering what customers want with hassle-free service and superior value is called
- (a) Service Excellence
 - (b) Operational Excellence
 - (c) Continuous Excellence
 - (d) All of the above
- 9 Delivering high quality products quickly, error free, and for a reasonable price is
- (a) Service Excellence
 - (b) Operational Excellence
 - (c) Continuous Excellence
 - (d) All of the above
- 10 Delivering products and services that push is called
- (a) Service Excellence
 - (b) Operational Excellence
 - (c) Continuous Excellence
 - (d) All of the above
11. By electronic commerce we mean:
- (a) Commerce of electronic goods
 - (b) Commerce which depends on electronics
 - (c) Commerce which is based on the use of internet
 - (d) None of the above
12. E-commerce is
- (a) B2C
 - (b) B2B

- (c) C2B
 - (d) All of the above
13. Business model is composed of Models
- (a) 4
 - (b) 5
 - (c) 6
 - (d) 7
14. Advantages of e-commerce are
- (a) Low cost
 - (b) Economical
 - (c) Productivity gains
 - (d) All of the above
15. B2B2C is a model of
- (a) E-commerce
 - (b) E-business
 - (c) Data mining
 - (d) None of the above
16. Mobile commerce is same as
- (a) E-commerce
 - (b) E-business
 - (c) Data mining
 - (d) None of the above
17. Transaction life cycle includes major application
- (a) 1
 - (b) 2
 - (c) 3
 - (d) None of the above
18. SCM stands for
- (a) Supply Chain Management
 - (b) Server Chain Management
 - (c) Swap Chain Management
 - (d) None of the above

19. Which model can use its physical store to promote the website
- (a) Storefront model
 - (b) Service provider model
 - (c) Click and mortar model
 - (d) Broker model
20. In which model user are given something for free but with advertisement
- (a) Advertiser model
 - (b) Portal site model
 - (c) Free access model
 - (d) Virtual mall model
21. Which model acts as intermediary between customer and business
- (a) Advertiser model
 - (b) Portal site model
 - (c) Free access model
 - (d) Virtual mall model
22. Which model is also called vanity set
- (a) Advertiser model
 - (b) Portal site model
 - (c) Free access model
 - (d) Virtual mall model
23. What is the full form of SWIFT?
- (a) Society for Worldwide Internet Financial Telecommunications.
 - (b) Secret Wide Interbank Financial Telecommunications
 - (c) Society for Worldwide Interbank Financial Telecommunications
 - (d) None of the Above
24. The types of Business to Business e-commerce are
- (a) Direct selling and support to Business
 - (b) Industry portals
 - (c) Information sites about a industry
 - (d) All of the above
25. Which of the following is not the example of business to consumer (B to C) e-commerce?
- (a) Amazon.com
 - (b) e-bay.com

- (c) dell.com
 - (d) lastminute.com
26. Which driver promote E-commerce
- (a) Digital Convergence
 - (b) 24/7 availability
 - (c) Profit margins
 - (d) None of the above
27. EC is
- (a) Electronic commerce
 - (b) Electrical commerce
 - (c) Enhanced Commerce
 - (d) All of the above
28. Electronic business connects critical business systems directly to key constituents via
- (a) Internet
 - (b) Intranet
 - (c) Extranet
 - (d) All of the above
29. Which of the following is the largest community in classification of e-commerce?
- (a) Business to Business (B to B)
 - (b) Business to Consumer (B to C)
 - (c) Business to Government (B to G)
 - (d) Government to Government (G to G)
30. The major types of EC transactions are:
- (a) B2B
 - (b) C2C
 - (c) B2C
 - (d) All of the above
31. The business environment is changing rapidly due to breakthroughs
- (a) Logical
 - (b) Technological
 - (c) Both (a) and (b)
 - (d) None of the above

32. Tendering is also known as
- (a) Auction
 - (b) Reverse auction
 - (c) Both (a) and (b)
 - (d) None of the above
33. model is a method of doing business by which a company can generate revenue to sustain itself
- (a) Business
 - (b) E-com
 - (c) Logical
 - (d) None of the above
34. Advantage of e-com is
- (a) Lower cost
 - (b) Economy
 - (c) Higher margins
 - (d) All of the above
35. Which model of e commerce deals with virtual auction?
- (a) Aggregator Model
 - (b) Info-mediary model
 - (c) Community Model
 - (d) Brokerage Model
36. When you look at e-commerce and e-business, which is the most realistic relationship between these two concepts?
- (a) E-commerce is broadly equivalent to e-business
 - (b) E-commerce has some overlap with e-business
 - (c) E-commerce is a subset of e-business
 - (d) E-business is a subset of e-commerce
37. Social network sites such as Facebook and Twitter have become increasingly popular for sell-side e-commerce and would normally be considered to be in which category?
- (a) Portal, publisher or media sites
 - (b) Brand-building sites
 - (c) Transactional e-commerce sites
 - (d) Services-orientated relationship-building websites

38. A summary of how a company will generate a profit identifying its core product, target customers, position in the online marketplace, and projections for revenue and costs is known as:
- (a) Value chain and marketplace positioning
 - (b) Value proposition
 - (c) Online business model
 - (d) Revenue model and cost base
39. While search engines index registered sites which users search by inputting key words, which type of intermediary updates its content typically through text but can include video or audio delivered through RSS feeds?
- (a) Directory
 - (b) Publisher site
 - (c) Blog
 - (d) Access portal
40. What are Microsoft Internet Explorer, Mozilla Firefox, Apple Safari, and Google Chrome examples of?
- (a) Web servers
 - (b) Web browsers
 - (c) Web application servers
 - (d) All of the above
41. What type of commerce occurs when a business sells its products over the Internet to other businesses?
- (a) B2B
 - (b) B2C
 - (c) C2B
 - (d) Enterprise Commerce
42. What term refers to the small web page that opens automatically with an ad when you visit some web sites?
- (a) Marketing page
 - (b) I-ad
 - (c) Affiliate ad
 - (d) Pop-up ad
43. A hardened firewall host on an Intranet is
- (a) a software which runs in any of the computers in the intranet
 - (b) a software which runs on a special reserved computer on the intranet

- (c) a stripped down computer connected to the intranet
 - (d) a mainframe connected to the intranet to ensure security
44. Advantages of B2C commerce are
- (i) Business gets a wide reach to customers
 - (ii) Payment for services easy
 - (iii) Shop can be open 24 hours a day seven days a week
 - (iv) Privacy of transaction always maintained
- (a) i and ii
 - (b) ii and iii
 - (c) i and iii
 - (d) iii and iv
45. Disadvantages of e-Commerce in India are
- (i) internet access is not universally available
 - (ii) credit card payment security is not yet guaranteed
 - (iii) transactions are de-personalized and human contact is missing
 - (iv) cyberlaws are not in place
- (a) i and ii
 - (b) ii and iii
 - (c) i, ii, iii
 - (d) i, ii, iii, iv
46. Most common uses of the Internet and the Web include communicating, shopping,
- (a) searching, entertainment, and education
 - (b) e-commerce, e-mail, and searching
 - (c) e-mail, entertainment, and education
 - (d) e-commerce, e-mail, and education
47. The _____ is the multimedia interface to resources available on the Internet.
- (a) Web
 - (b) ISP
 - (c) browser
 - (d) URL
48. The multimedia interface to the resources available on the Net is called the
- (a) World Wide Web
 - (b) Internet

- (c) GUI interface
 - (d) Server
- 49 Rules for exchanging data between computers are called
- (a) programs
 - (b) procedures
 - (c) protocols
 - (d) hyperlinks
- 50 Moving from one Web site to another is called
- (a) jumping
 - (b) moving
 - (c) surfing
 - (d) applying
- 51 All of the following would be considered to be specific forces that underlie the new Internet age EXCEPT:
- (a) digitalization and connectivity.
 - (b) the explosion of the Internet.
 - (c) customization and customerization.
 - (d) increasing affluence and income in the United States.
- 52 Which of the following best characterizes digital information?
- (a) a stream of zeros and ones, or bits
 - (b) something made possible by high speed printers and color reproduction
 - (c) information in virtual space
 - (d) three-dimensional space containing compacted data
- 53 Today a growing number of appliances and systems operate on digital information. For bits to flow from one appliance or location to another requires _____, a Telecommunications network.
- (a) customization
 - (b) customerization
 - (c) connectivity
 - (d) concentration
- 54 _____ are networks that connect people within a company to each other and to the company network.
- (a) Internets
 - (b) Intranets
 - (c) Extranets
 - (d) Components

55. A network that connects a company with its suppliers and distributors is called a(n):
- (a) Internet.
 - (b) Intranet.
 - (c) Extranet.
 - (d) Component.
56. The Johnson Company is seeking to expand its business onto the “information highway” made possible by recent advances in technology. To do this, the Johnson Company would most likely choose the:
- (a) Internet.
 - (b) Intranet.
 - (c) Extranet.
 - (d) Compunet.
57. By early 2001, Internet penetration in the United States had reached close to:
- (a) 100 percent.
 - (b) 90 percent.
 - (c) 75 percent.
 - (d) 60 percent.
58. The explosive worldwide growth in _____ usage forms the heart of the so-called New Economy.
- (a) population
 - (b) cell-technology
 - (c) Internet
 - (d) Intranet
59. Established store-based retailers of all kinds began to doubt their futures as competitors sprung up selling their products and services via the Internet. They feared being _____ by the new e-tailers.
- (a) upstaged
 - (b) technologically intermediated
 - (c) disinter mediated
 - (d) contaminated
60. If brick-and-mortar firms such as Barnes & Noble or Wal-Mart start their own Online sales channels, they would become a _____ firm.
- (a) click-only
 - (b) click-and-mortar
 - (c) disinter mediated
 - (d) bits-and-mortar

- 61 Rules that govern a communication exchange are
- (a) Media
 - (b) Criteria
 - (c) Protocol
 - (d) All of above
- 62 Performance of data communications depend on
- (a) No. of users
 - (b) Transmission media
 - (c) H/w and S/w
 - (d) All of above
- 63 The information to be communicated in a data communication system is
- (a) Medium
 - (b) Protocol
 - (c) Message
 - (d) Transmission
- 64 In a network with 25 computers, which topology would require most extensive calling
- (a) Mesh
 - (b) Star
 - (c) Bus
 - (d) Ring
- 65 In a network with 25 computers, which topology would require most extensive calling
- (a) Mesh
 - (b) Star
 - (c) Bus
 - (d) Ring
- 66 Which topology features a point to point line configuration
- (a) Mesh
 - (b) Star
 - (c) Ring
 - (d) All of above
- 67 A cable break in which topology stops all transmission
- (a) Mesh
 - (b) Bus
 - (c) Star

(d) Primary

68 The OSI model consist of

- (a) 3 layers
- (b) 5 layers
- (c) 7 layers
- (d) 8 layers

69 Dialog control is the function of which layer

- (a) Transport
- (b) Session
- (c) Presentation
- (d) Application

70 Data unit is called a frame in

- (a) Physical layer
- (b) Network layer
- (c) Presentation layer
- (d) Data link layer

Ans. (1)(d), (2)(a), (3)(a), (4)(d), (5)(a),6(b),7(b),8(a),9(b),10(c) ,(11)(d), (12)(a), (13)(a), (14)(b), (15)(c), (16)(b), (17)(b), (18)(d), (19)(b), (20)(b), (21)(a), (22)(d), (23)(d), (24)(d), (25)(b), (26)(a), (27)(b), (28)(c), (29)(a), (30)(b), (31)(b), (32)(c), (33)(b), (34)(a), (35)(d), (36)(c), (37)(a), (38)(c), (39)(c), (40)(b), (41)(a), (42)(d), (43)(b), (44)(c), (45)(c), (46)(a), (47)(a), (48)(a), (49)(c), (50)(c), (51)(d), (52)(a), (53)(c), (54)(b), (55)(c), (56)(a), (57)(d), (58)(c), (59)(c), (60)(b), (61)(c), (62)(d), (63)(c), (64)(b), (65)(a), (66)(d), (67)(b), (68)(c), (69)(b), (70)(d)

(b) Fill in the Blanks:

- 1 A _____ is a shared online journal where people post entries about
- 2 The _____ refers to the gap between haves and have nots in computers.
- 3 _____ answers to repeatedly asked questions that a business places in a simple list on the website.
- 4 The _____ is a mesh of interconnected data highways of many forms.
- 5 EDI stands for _____.
- 6 TCP stands for _____.
- 7 _____ are translated to IP addresses via DNS.
- 8 IP addresses are _____ bit addresses.

- 9 TCP is _____ (connection oriented/connectionless).
- 10 UDP is _____ (connection oriented/connectionless).
- 11 _____ facilitates file transfer between a local and a remote host.
- 12 _____ mechanism of HTTP enables servers to execute programs, obtain results and send results to requesting browser.
- 13 2 EDI standards are _____ and _____.
- 14 EDIFACT stands for _____.
- 15 _____, _____, _____ and _____ are the services of Internet.
- 16 _____ are networks that connect people within a company to each other and to the company network.
- 17 _____ is the encompassing term that involves the use of electronic platforms - intranets, extranets and the Internet - to conduct a company's business.
- 18 The type of website that engages consumers in interactions that will move them closer to a direct purchase is known as a _____ website.
- 19 One source of e-commerce income is _____ income.
- 20 CRM stands for _____.
- 21 _____ is the leveraging of network capabilities and technologies to interact with customers, suppliers, partners and employees to achieve and sustain a competitive advantage.
- 22 _____ is the generic name for the IT-as-utility market opportunity. It is a way of delivering standardized IT processes, applications, and infrastructure over the network as a service.
- 23 _____ is the certification that validates the ability of an individual to understand and articulate e-business, issues, strategy, and methodologies, focusing on a well-rounded perspective of e-business.
- 24 An _____ is an individual who translates a client's requirements into an implementable e-business solution.
- 25 The _____ is designed to assess the candidate's ability to design an implementable e-business solution that meets the customer's business requirements.

Ans. (1)(blog), (2)(digital divide), (3)(FAQ), (4)(I-way), (5)(Electronic Data Interchange), (6)(Transmission Control Protocol), (7)(Domain Names), (8)(32 Bit), (9)(Connection oriented), (10)(connectionless), (11)(FTP), (12)(CGI), (13)(XIZ and EDIFACT), (14)(EDI for Administration, Commerce and Trade), (15)(E-mail, telnet, FTP and usenet)(16)Intranet,(17)Ebusiness,(18)Interactive,(19)Referral,(20)Customer Relatonship management, (21) E – Buisness, (22) E- Soucing, (23) Certified for e-business solution technologist, (24) e-business solution designer, (25) e-business Solution designer certification exam Test 815.

II Short Answer Type Questions:

- 1 “Now a days market is driven by e-commerce”. Justify this statement.
- 2 Define EC and E-Business.
- 3 What do you understand by E-commerce? Discuss the driving forces for E-Commerce.
- 4 What are the advantages and disadvantages of e-commerce?
- 5 Discuss commercial, social as well as entertainment opportunities in E-Commerce.
- 6 “Business becomes a global phenomenon through E-Commerce”. Justify this statement.
- 7 List the major impacts of EC on direct marketing.
- 8 List the organizational, consumer and societal benefits of EC.
- 9 Clicks-and-Mortar Model of E-Commerce
- 10 Broker Model of E-Commerce
- 11 Distinguish Search Engine and Internet Service Provider
- 12 Define Internet and Extranet.
- 13 What is the difference between e-commerce over extranet and intranet?
- 14 What is EDI?
- 15 How EDI can change the way business works?
- 16 Briefly explain the two standards of EDI.
- 17 What is Internet and how it helps in e-commerce?
- 18 Difference between routers and hub
- 19 Differentiate two-tier and three-tier architecture.
- 20 “E-commerce on Internet is risky” Comment.
- 21 What kind of e-commerce architecture is required on the web to perform e-commerce?
- 22 What do you understand by I-way and what is the need for it?
- 23 Write short notes on:
(a) URL (b) DNS (c) Web browser (d) Web Server (e) WWW
- 24 What are the various types of broadband?
- 25 Define a virtual corporation.
- 26 Short note on Telnet.
- 27 Write short note on Electronic Mail. And write its components also.
- 28 Write short note on E-Procurement
- 29 “Business becomes a global phenomenon through e-commerce”. Justify this statement?
- 30 What do you understand by E-commerce? How broadband technologies play an important role in E-commerce?
- 31 What is the difference between e-commerce and traditional ecommerce?
- 32 What is the difference between digital commerce and mobile commerce?
- 33 What are the benefits and drawbacks of e-commerce over business based on traditional mortar and brick outlet?
- 34 Discuss briefly the e commerce scenario in India via role of government?

- 35 What are the requirements for conducting e commerce for an organization dealing in books and music titles?
- 36 How can a small business develop a strategy for ecommerce?
- 37 Describe some of the barriers to ecommerce for small businesses.
- 38 State the drivers of Electronic commerce.
- 39 What are the various online consumer aids, including comparison-shopping aids in E-commerce?
- 40 What are the various components of Electronic Data Interchange? Explain the role of each.
- 41 What do you mean by collaborative E-commerce? Discuss its advantages
- 42 What are the means through which electronic business is promoted in the marketplace?
- 43 What are the four primary Business patterns?
- 44 What is a Custom design? What is the difference between a Custom design and a Composite pattern?
- 45 What are the layered assets in the Patterns for e-business layered asset model? Describe each layer.
- 46 Identify the components of data communication.
- 47 What are the various forms of data?
- 48 Define the three transmission modes.
- 49 Name the five basic network topologies.
- 50 Distinguish between a peer-to-peer relationship and a primary secondary relationship.

III Long Answer Type Questions:

- 1 What is the current and prospective size of electronic market? Describe in terms of B2C versus B2B electronic market?
- 2 Explain the major methods of Internet based market research.
- 3 Explain Porter's Model of Value Chain.
- 4 Discuss E-Commerce in India.
- 5 Discuss the concept of value chain in E-commerce.
- 6 What do you understand by E-Commerce? What are the benefits and drawbacks over business based on traditional mortar and bricks outlets?
- 7 Explain clearly, with suitable examples the difference between e-commerce and Electronic Data Interchange.
- 8 What do you mean by Search engine? Explain
- 9 Explain CRM and E-Commerce
- 10 Explain the history of World Wide Web.
- 11 Explain OSI Reference Model
- 12 Explain Applications of Intranet and Extranet

- 13 Explain in detail Types of Client/server Architecture.
- 14 Explain in detail B2B E-Commerce. Write in brief advantages and disadvantages of B2B.
- 15 What are the reasons for 'dot.com' bust in the year 2000? Critically analyze. Further the revival of electronic commerce today is for real' Comment on the statement. What are the reasons that make the electronic commerce that today? Compare the global and Indian scenario.
- 16 What are the different business models over Internet? Illustrate giving suitable examples.
- 17 What security and privacy issues are the limitations of the Web? Discuss.
- 18 Summarize the key benefits and drawbacks of peer-to-peer networks.
- 19 Summarize three reasons why a company may wish to introduce e-commerce.
- 20 Describe three of the main barriers to adoption of e-commerce by consumers and suggest how company could counter these.
- 21 What do you understand by E-commerce? How broad band technology play an important role in E-commerce?
- 22 Discuss the business applications on Intranet and Extranet?
- 23 Explain the following in detail?
 - (a) Value chains in Electronic commerce
 - (b) Components of EDI
- 24 Illustrate the following with suitable examples:
 - (a) B2C
 - (b) B2B
 - (c) B2G
 - (d) C2B
- 25 What is the difference between e-commerce and E.D.I? Explain with the help of suitable example?
- 26 Discuss how EDI can change the life of common man?
- 27 What are the components of EDI?
- 28 Discuss how the use of internet banking has changed the banking industry and how it has affected your life as a consumer of banking services.
- 29 The tremendous growth in e-business in recent years has taken place for several solid business reasons. Discuss these reasons, giving examples of each of them.
- 30 Explain how one can say the early years of e-commerce can be considered both a success and a failure?
- 31 Once a company has acquired a customer, the key to maximizing revenue is keeping them. Explain how e-commerce is helpful in customer retention with or without the help of internet.
- 32 What are the key technologies used for e-commerce? Explain architectural and business models of e-commerce.
- 33 How does electronic business influence the value chains in business organization adopting the electronic business strategies?

- 34 Why is there a need for security in e-business?
- 35 Describe the flow for a digital certificate process. Assume that you already have the digital certificate of the recipient as well as a digital certificate for the sender.
- 36 How is 2G mobile communication different from 3G mobile communication?
- 37 Explain multiplexing and its types with focus on its application in the Mobile telephone system.
- 38 Differentiate between OSI and TCP/IP reference models in terms of architecture.
- 39 Describe different types of communication satellites.
- 40 With reference to ISO-OSI Reference model, briefly explain the function of the following devices :-(i) Repeater (ii) Bridge (iii) Router (iv) Gateway

UNIT - II

I Test Your Skills:

A. Multiple choice questions

1. In cryptography, the messages are
 - (a) Encrypted
 - (b) Decrypted
 - (c) Both I and b
 - (d) None of the above

2. In symmetric key encryption, Is shared by users
 - (a) only one key
 - (b) two keys
 - (c) three keys
 - (d) none of the above

3. In asymmetric key encryption, Is shared by users
 - (a) only one key
 - (b) two keys
 - (c) three keys
 - (d) none of the above

4. Encryption algorithms are based on
 - (a) Substitution
 - (b) Transposition
 - (c) Both (a) and (b)

- (d) None of the above
5. Plaintext is
- (a) Original data
 - (b) Decrypted data
 - (c) Both (a) and (b)
 - (d) None of the above
6. Public key algorithms are same as
- (a) Symmetric algorithms
 - (b) Asymmetric algorithm
 - (c) Both (a) and (b)
 - (d) None of the above
7. Plaintext is same as
- (a) Ciphertext
 - (b) Original data
 - (c) Both (a) and (b)
 - (d) None of the above
8. DES is
- (a) Data encryption service
 - (b) Data encryption standard
 - (c) Double encryption standard
 - (d) Double encryption service
9. Encryption and decryption are functions of layer
- (a) Transport
 - (b) Session
 - (c) Presentation
 - (d) Application
10. RSA algorithm is the basis of a encryption
- (a) Public key
 - (b) Private key
 - (c) Conventional key
 - (d) Denominational
11. The sender uses an encryption algorithm and a key to transform the into

- (a) Ciphertext into plaintext
 - (b) Plaintext into ciphertext
 - (c) Both (a) and (b)
 - (d) None of the above
12. Public key encryption technique is
- (a) RSA
 - (b) DES
 - (c) Both (a) and b
 - (d) None of the above
13. RSA is
- (a) Round standard algorithm
 - (b) Rivest Shamir adleman
 - (c) Robin standard algorithm
 - (d) None of the above
14. Cryptography is same as decryptography
- (a) True
 - (b) False
15. Application of cryptography is
- (a) ATM cards
 - (b) E-commerce
 - (c) Both I and b
 - (d) None of the above
16. are applications that don't infect other files
- (a) Viruses
 - (b) Worms
 - (c) Bots
 - (d) None of the above
17. Means that the sender transforms the original message to another form
- (a) Encryption
 - (b) Decryption
 - (c) Compression
 - (d) None of the above

18. reverses the encryption process
- (a) Compression
 - (b) Decryption
 - (c) Both (a) and (b)
19. Digital signature is based on
- (a) Public key encryption
 - (b) Private key encryption
 - (c) Both (a) and (b)
 - (d) None of the above
20. Authentication means verifying the identity of
- (a) Sender
 - (b) Receiver
 - (c) Both (a) and (b)
 - (d) None of the above
21. is a procedure that prevents sender and vendor from credibly denying that they sent or received a specific message
- (a) Confidentiality
 - (b) Non-repudiation
 - (c) Integrity
 - (d) None of the above
22. Block cipher is aalgorithm
- (a) Symmetric
 - (b) Asymmetric
 - (c) Both (a) and (b)
 - (d) None of the above
23. Stream cipher is a Algorithm
- (a) Symmetric
 - (b) Asymmetric
 - (c) Both (a) and (b)
 - (d) None of the above
24. Cryptanalysis is the science ofencrypted messages without knowing the right key
- (a) Deciphering
 - (b) Ciphering

- (c) Both (a) and (b)
 - (d) None of the above
25. Private key algorithms are same as
- (a) Symmetric algorithms
 - (b) Asymmetric algorithm
 - (c) Both (a) and (b)
 - (d) None of the above
26. HTTP is
- (a) Hyper text transfer protocol
 - (b) Hyper text transfer provider
 - (c) High text transfer protocol
 - (d) None of the above
27. HTTP functions as a
- (a) Client server model
 - (b) Peer to peer model
 - (c) Both (a) and (b)
 - (d) None of the above
28. WWW is
- (a) world wide web
 - (b) wide world web
 - (c) world war web
 - (d) none of the above
29. Firewalls are concerned with
- (a) traffic
 - (b) traffic flow
 - (c) Both (a) and (b)
 - (d) none of the above
30. PKI is
- (a) Public key internet
 - (b) Public key infrastructure
 - (c) Private key internet
 - (d) Private key infrastructure

31. With headlines often commenting on breaches of Internet security, what is the term used for specialised software to prevent unauthorized access to company data from outsiders?
- (a) Middleware
 - (b) Firewall
 - (c) Enterprise application integration – EAI
 - (d) Web analytics system
32. Public Key of the receiver is used to-----.
- (a) Decrypt the message
 - (b) Encrypt the message
 - (c) Scramble the message
 - (d) None of the mentioned options
33. Receiver applies -----to the received original message
- (a) Digital signature
 - (b) Message digest
 - (c) Hash function
 - (d) None of the mentioned options
34. An electronic check book device is a combination of
- (a) Hardware and a digital signature
 - (b) Software and information about user
 - (c) Secure hardware and software
 - (d) None of the mentioned options
35. Electronic Data Interchange is necessary in
- (a) B2C e-Commerce
 - (b) C2C e-Commerce
 - (c) B2B e-Commerce
 - (d) Commerce using internet
36. For secure EDI transmission on internet
- (a) MIME is used
 - (b) S/MIME is used
 - (c) PGP is used
 - (d) TCP/IP is used
37. Main function of proxy application gateway firewall is :
- (a) to allow corporate users to use efficiently all internet services
 - (b) to allow intranet users to securely use specified internet services

- (c) to allow corporate users to use all internet services
 - (d) to prevent corporate users from using internet services
38. By security in e-Commerce we mean
- (i) Protecting an organization's data resource from unauthorized access
 - (ii) Preventing disasters from happening
 - (iii) Authenticating messages received by an organization
 - (iv) Protecting messages sent on the internet from being read and understood by unauthorized persons/organizations
- (a) i, ii
 - (b) ii, iii
 - (c) iii, iv
 - (d) i, iii, iv
39. The bank has to have the public keys of all customers in SET protocol as it has to
- (a) check the digital signature of customers
 - (b) communicate with merchants
 - (c) communicate with merchants credit card company
 - (d) certify their keys
40. Firewall as part of a router program
- (a) filters only packets coming from internet
 - (b) filters only packets going to internet
 - (c) filters packets travelling from and to the intranet from the internet
 - (d) ensures rapid traffic of packets for speedy e-Commerce
41. The actual physical network made up of wires, cables, and satellites that connects computers and resources throughout the world is the
- (a) Web
 - (b) Internet
 - (c) e-commerce
 - (d) spiders
42. The most popular Internet activity is
- (a) going shopping
 - (b) conducting research
 - (c) playing games, reading, listening to music
 - (d) communicating with others

- 43 Encryption is a security method but it doesn't keep digital pests and hackers out. For this we need
- (a) Router
 - (b) Bridges
 - (c) Hub
 - (d) Firewall
- 44 What is a Firewall in Computer Network?
- (a) The physical boundary of Network
 - (b) An operating System of Computer Network
 - (c) A system designed to prevent unauthorized access
 - (d) A web browsing Software
- 45 HTTP stands for
- (a) Hyper Text Transfer Protocol
 - (b) Hyper Text Transmission Protocol
 - (c) Hyper Text Tie Protocol
 - (d) None of these
- 46 In cryptography, what is cipher?
- (a) Algorithm for performing encryption and decryption
 - (b) Encrypted message
 - (c) Both (a) and (b)
 - (d) None of the mentioned
- 47 In asymmetric key cryptography, the private key is kept by
- (a) Sender
 - (b) Receiver
 - (c) Sender and receiver
 - (d) All the connected devices to the network
- 48 In which way does the Combined Encryption combine symmetric and asymmetric encryption?
- (a) First, the message is encrypted with symmetric encryption and afterwards it is encrypted asymmetrically together with the key.
 - (b) The secret key is symmetrically transmitted, the message itself asymmetrically.
 - (c) First, the message is encrypted with asymmetric encryption and afterwards it is encrypted symmetrically together with the key.
 - (d) The secret key is asymmetrically transmitted, the message itself symmetrically

- 49 is simply the use of electronic means to transfer funds directly from one account to another, rather than by cheque or cash.
- (a) m-banking
 - (b) o-banking
 - (c) e-banking
 - (d) D-Banking
- 50 What is the full form of SWIFT?
- (a) Society for Worldwide Internet Financial Telecommunications.
 - (b) Secret Wide Interbank Financial Telecommunications
 - (c) Society for Worldwide Interbank Financial Telecommunications
 - (d) None of the Above
- 51 What is the definitive advantage of using CIM-based resource monitoring when newer versions of the product are released?
- (a) The monitor is not required to know the implementation details of the system.
 - (b) The monitor is required to interact with the new implementation through the management interface.
 - (c) Both A and B are correct.
 - (d) Neither A nor B is correct.
- 52 What does the CIM Schema part of the CIM do?
- (a) Describes the language to other management models
 - (b) Describes the meta schema and mapping techniques to other management models
 - (c) Describes mapping techniques to other management models
 - (d) None of the above
- 53 In terms of the CIM Schema, which of the following choices is correct?
- (a) Each schema is a collection of one or more classes.
 - (b) Each class is a collection of similar objects.
 - (c) A class is defined as the basic unit of management.
 - (d) All of the above
54. Why are companies moving to automated computing services to manage their environment?
- (a) Reduce costs
 - (b) Increase response time
 - (c) Both A and B are correct.
 - (d) Neither A nor B is correct.

55. Which of the following choices indicates what the e-business infrastructure component known as Server hardware can be?
- (a) Storage
 - (b) Databases
 - (c) Routers
 - (d) None of the above
56. Which of the following choices indicates what the e-business infrastructure component known as Application software can be?
- (a) Storage
 - (b) Databases
 - (c) Routers
 - (d) None of the above
57. Which of the following choices indicates what the e-business infrastructure component known as Network infrastructure can be?
- (a) Switches
 - (b) Firewalls
 - (c) Routers
 - (d) All of the above
58. What is an Application Management Tool?
- (a) An application that collects and manages performance data from e-business hardware such as servers and network devices
 - (b) An application that collects and manages performance data from e-business software components such as applications and databases
 - (c) Both A and B are correct.
 - (d) Neither A nor B is correct.
59. In the basic flow of information over a network, where can a bottleneck exist?
- (a) On the client
 - (b) On the network
 - (c) On the server
 - (d) All of the above
60. Which of the following choices is a performance problem of no planned redundancy in the design?
- (a) Clients
 - (b) Networks
 - (c) Servers

- (d) All of the above
61. Which one of the following task is not done by data link layer?
- (a) framing
 - (b) error control
 - (c) flow control
 - (d) channel coding
62. Which sublayer of the data link layer performs data link functions that depend upon the type of medium?
- (a) logical link control sublayer
 - (b) media access control sublayer
 - (c) network interface control sublayer
 - (d) none of the above
63. Header of a frame generally contains
- (a) synchronization bytes
 - (b) addresses
 - (c) frame identifier
 - (d) all of the above
64. When 2 or more bits in a data unit has been changed during the transmission, the error is called
- (a) random error
 - (b) burst error
 - (c) inverted error
 - (d) none
65. CRC stands for
- (a) cyclic redundancy check
 - (b) code repeat check
 - (c) code redundancy check
 - (d) cyclic repeat check
66. Which one of the following is a data link protocol?
- (a) Ethernet
 - (b) point to point protocol
 - (c) HDLC
 - (d) all of the above

67. The technique of temporarily delaying outgoing acknowledgements so that they can be hooked onto the next outgoing data frame is called
- piggybacking
 - cyclic redundancy check
 - fletcher's checksum
 - none of the mentioned
68. The data link layer takes the packets from _____ and encapsulates them into frames for transmission.
- network layer
 - physical layer
 - transport layer
 - application layer
69. The maximum size of payload field in Ethernet frame is
- 1000 bytes
 - 1200 bytes
 - 1300 bytes
 - 1500 bytes
70. What is inter-frame gap?
- idle time between frames
 - idle time between frame bits
 - idle time between packets
 - none of the above

Ans: (1)(c), (2)(a), (3)(a), (4)(a), (5)(a), (6)(b), (7)(b), (8)(b), (9)(c), (10)(a), (11)(b), (12)(a), (13)(b), (14)(b), (15)(c), (16)(b), (17)(a), (18)(b), (19)(c), (20)(a), (21)(b), (22)(a), (23)(a), (24)(a), (25)(a), (26)(a), (27)(b), (28)(a), (29)(a), (30)(b), (31)(b), (32)(b), (33)(c), (34)(c), (35)(c), (36)(b), (37)(b), (38)(d), (39)(a), (40)(c), (41)(b), (42)(d), (43)(d), (44)(c), (45)(a), (46)(a), (47)(b), (48)(d), (49)(c), (50)(d), (51)(c), (52)(d), (53)(d), (54)(c), (55)(a), (56)(b), (57)(d), (58)(d), (59)(d), (60)(c), (61)(d), (62)(b), (63)(d), (64)(b), (65)(a), (66)(d), (67)(a), (68)(a), (69)(d), (70)(a)

(b) Fill in the Blanks:

- A majority of Internet traffic is _____ (encrypted/unencrypted).
- Trojan horse and worm are types of _____.

- 3 _____ refers to insertion of messages into the n/w from a fraudulent source.
- 4 _____ is the denial of receipt of messages by destination or device of transmission of message by source.
- 5 _____ is the process of verifying the identity of a person from whom the common message emanated.
- 6 _____ is the protection of transmitted data from passive attacks.
- 7 Encryption scheme in which same key is shared by both sender and receiver is _____.
- 8 _____ is a technique in which the individual elements of the plaintext are rearranged but not disguised.
- 9 _____ is the art of breaking cryptosystems.
- 10 DES stands for _____.
- 11 A _____ includes the major disciplines of IT security as part of an overall architecture, rather than a set of unrelated products that solve part of your security problems.
- 12 _____ is the method used to address the security issues of information threat, malicious destruction, and general access violations on an open network.
13. _____ is a technique used to encrypt and decrypt data using a single secret key.
14. _____ uses two keys, a public key and a private key pair.
15. To overcome the issue of accountability, _____ can be used in conjunction with public key encryption

Ans. (1)(unencrypted), (2)(viruses), (3)(masquerade), (4)(repudiation), (5)(authentication), (6)(confidentiality), (7)(symmetric), (8)(transposition), (9)(cryptanalysis), (10)(Data Encryption Standard), (11) (Solutions framework or Security Solutions Framework), (12)(Cryptography), (13)(Symmetric or secret key cryptography),(14)(Asymmetric key cryptography),(15)(data signing).

II Short Answer Type Questions:

- 1 What is meant by integrity of a message? Describe a technique to ensure the integrity of an e-mail message.
- 2 What is a digital certificate? Describe the commonly used standard for digital certificate.
- 3 Describe a symmetric key cryptosystem? What are the important issues related to key distribution and management?
- 4 What is a public key cryptosystem?
- 5 What is Public Key Infrastructure (PKI)? Describe the role of theca and registration authority.
- 6 What is digital Signature?

- 7 Describe a technique used for non-repudiation of an e-commerce transaction.
- 8 Briefly describe the SET protocol.
- 9 Compare SSL and SET.
- 10 Describe how online web site operations can be protected from hackers.
- 11 What is the role of firewall?
- 12 What is the use of a proxy server?
- 13 What is “denial of service” attack and how does it affect a business organization?
- 14 Differentiate between secret key encryption and public key encryption.
- 15 “VPN can fulfill the need of corporate organization about secure transmission”. Justify the statement.
- 16 What are the sources of technical vulnerabilities?
- 17 Briefly explain the types of attacks.
- 18 What is sniffing? How it threatens security? How to prevent it?
- 19 Explain types of spoofing.
- 20 What are name servers?
- 21 Write short note on CRM and e-commerce.
- 22 Write short note on smart cards.
- 23 Describe the importance of a protocol.
- 24 Briefly describe the purpose of file transfer protocol and list five important commands.
- 25 In HTTP (Web) servers of the NCSA lineage, what are the files used for configuring the web server?
- 26 What is the purpose of defining the Document Root in the configuration file of the NCSA lineage web server?
- 27 What do you understand by Encryption? What are the different elements of encryption system?
- 28 Explain the difference between symmetric encryption and public-key encryption.
- 29 Discuss the pros and cons of secret key encryption and public key encryption and their complimentary use.
- 30 Write short note on digital signature.
- 31 Give examples of B2B, C2C and P2P websites.
- 32 What is meant by internet fraud, phishing and spam?
- 33 List the encryption policies used to protect data transfer in E-commerce?
- 34 Define packet filtering firewall.
- 35 Explain Virtual Private network.
- 36 What are the counter measures that address these security concerns? Give suitable illustrations.
- 37 How does firewall provide the protection to communication networks? Explain.
- 38 Explain Digital Signature.
- 39 Write short note on Secure Electronic Transaction Protocol
- 40 What is Mobile Commerce?

- 41 What is Binary and Potential Back off algorithm?
- 42 Compare Pure Aloha & Slotted Aloha.
- 43 Define collision?
- 44 Define sliding window.
- 45 Explain CSMA/CD.

III Long Answer Type Questions:

- 1 What is a firewall? Explain its types.
- 2 Differentiate between symmetric and asymmetric cryptography.
- 3 What are the limitations of cryptography?
- 4 Explain the working of RSA algorithm.
- 5 Which vulnerabilities of the Common Gateway Interface (CGI) can attackers exploit? Compare compiled versus interpreter CGI scripts.
- 6 What are the security concerns for secure e-business? Explain clearly as to how these can be addressed for doing safe and secure business online. Are there any legal provisions to address these concerns in India?
- 7 Explain, clearly, the concept of Digital Signatures. What is a 'Digital Signature Certificate'? Who issues it and how? What role does the 'Controller of Certifying Authorities' play in the process?
- 8 Describe salient features of Hypertext Transfer Protocol.
- 9 Define a 7-step interaction between a HTTP client and server.
- 10 The existence of standards such as HTML and HTTP has been vital to the success and increased use of the World Wide Web. Explain why.
- 11 Describe the pros and cons of Secret Key Encryption and Public Key Encryption and their complementary use?
- 12 Explain the security schemes adopted in SSL and SET.
- 13 Write short note on digital signature.
- 14 What are the security issues addressed by digital signature?
- 15 Explain, clearly the concept of digital signature. What is a digital signature certificate? Who issues it and how? What role does the 'controller of certifying authorities' play in the process?
- 16 What are the various threats in e-business and also suggest their counter measures for these threats.
- 17 What are the security concerns for secure e-business? Explain clearly as to how these can be addressed for doing safe and secure business online. Are there any legal provisions to address these concerns in India?
- 18 Write a short note on HTTP.
- 19 Elaborate on the business models of Intranet, Extranet and Internet with suitable

- examples. What are their applications to the modern day business.
- 20 Discuss the players and processes involved in using credit cards online. Also explain the security mechanisms used for protection against internet frauds.
 - 21 State the major types of B2B models and describe B2B aggregation and group purchasing models.
 - 22 Describe the needs and methods to protect both buyers and sellers.
 - 23 Explain various internet protocols and how it is useful to E-commerce in detail.
 - 24 Organizations doing business electronically are more risk prone. Do you agree? What are the additional security threats in Electronic Business?
 - 25 What are the counter measures that address these security concerns? Give suitable illustrations.
 - 26 Differentiate between symmetric and asymmetric cryptography.
 - 27 How does firewall provide the protection to communication networks? Explain.
 - 28 Organizations doing business electronically are more risk prone. Do you agree? What are the additional security threats in Electronic Business?
 - 29 Explain clearly the concept of Digital Signatures. What is a 'digital Signature? Certificate'? Who issues it and how? What role does the "Controller of Certifying? Authorities play in the process"?
 - 30 Explain the process of online payment in the arena of e-commerce.
 - 31 What is the difference between a protocol and a service interface? Explain in terms of a ISO seven layer model
 - 32 Explain Guided and Unguided Media.
 - 33 Perform a comparative study between the ISO-OSI model and TCP/IP reference model.
 - 34 Differentiate between LAN, MAN and WAN.
 - 35 What is frequency division multiple access (FDMA)? How is it different from time division multiple accesses (TDMA)?

UNIT - III

I Test Your Skills:

(a) Multiple choice questions

1. E-money is amedium for making payments
 - (a) Digital
 - (b) Electronic
 - (c) Both (a) and (b)
 - (d) None of the above

2. Acid test is a set of properties of money transfer that include
 - (a) Atomicity and isolation
 - (b) Consistency and durability
 - (c) Both (a) and (b)
 - (d) None of the above

3. In....., each transaction must be independent
 - (a) Consistency
 - (b) Isolation
 - (c) Durability
 - (d) None of the above

4. In ICES test, C means
 - (a) Consistency
 - (b) Complexity
 - (c) Conservation
 - (d) None of the above

5. Electronic payment is a financial transaction madethe use of paper documents
 - (a) With
 - (b) Without
 - (c) Both (a) and (b)
 - (d) None of the above

6. Electronic payment media can be grouped into
 - (a) Trusted third party type
 - (b) Notational fund transfer related type
 - (c) Authentication type
 - (d) All of the above

7.is a type of EPS
 - (a) Credit card
 - (b) Debit card
 - (c) Smart card
 - (d) All of the above

8. Smart card is same as.....
 - (a) Credit card
 - (b) Debit card
 - (c) Both (a) and (b)

- (d) None of the above
9. Debit card is used for
- (a) On line transactions
 - (b) Off line transaction
 - (c) Both (a) and (b)
 - (d) None of the above
10.card is a card with a built-in chip capable of storing information in its memory
- (a) Debit
 - (b) Credit
 - (c) Smart
 - (d) None of the above
11. Applications of smart card are:
- (a) Government
 - (b) Identification
 - (c) Health care
 - (d) All of the above
12.is an application of smart card
- (a) ATM
 - (b) Telecommunication
 - (c) Transportation
 - (d) None of the above
13. EFT is a computer based system
- (a) True
 - (b) False
14. EFT is
- (a) Electronic Fund Transfer
 - (b) Electrical fund transfer
 - (c) Electronic fast transfer
 - (d) None of the above
15.cards andcards are two ways to make payments on a web site
- (a) Debit and smart
 - (b) Credit and debit

- (c) Credit and smart
 - (d) None of the above
16.allows the transfer of money itself
- (a) Digital cash
 - (b) Electronic money
 - (c) Both (a) and (b)
 - (d) None of the above
17. E-money has.....types
- (a) 3
 - (b) 4
 - (c) 5
 - (d) 6
18. Paisapay is facilitated in.....
- (a) Amazon.com
 - (b) eBay.co.in
 - (c) Flipkart.com
 - (d) None of the above
19. The way to hide digital information is through.....
- (a) Cryptography
 - (b) Digital certificate
 - (c) Digital signature
 - (d) None of the above
20. Main models of internet based payment system are:
- (a) Electronic currency
 - (b) Credit card
 - (c) Debit card
 - (d) All of the above
21.card is a model of IPS
- (a) Smart
 - (b) Debit
 - (c) Credit
 - (d) All of the above

22. Payment systems via the internet include
- (a) Cyber cash
 - (b) First virtual
 - (c) Both (a) and (b)
 - (d) None of the above
23.cards directly transfer funds from consumers bank account to the merchant's
- (a) Debit
 - (b) Credit
 - (c) Both (a) and (b)
 - (d) None of the above
24. Credit cardsconvenient for making small purchases
- (a) Are
 - (b) Are not
 - (c) Both (a) and (b)
 - (d) None of the above
25. ACH is
- (a) Acid consistency house
 - (b) Acitomated clearing house
 - (c) Automated consistency house
 - (d) None of the above
26. Packet filtering is a type of
- (a) Firewall
 - (b) Virus
 - (c) Network
 - (d) ecommerce application
27. Firewall is used for
- (a) Security
 - (b) Design
 - (c) Analysis
 - (d) None of the above
28. A packet filtering firewall filters the
- (a) Incoming packet
 - (b) Outgoing packet

- (c) Both (a) and (b)
 - (d) None of the above
29. Circuit level firewall operates at layer level of OSI model
- (a) Application
 - (b) Session
 - (c) Presentation
 - (d) None of the above
30. Application level firewall acts as a For application
- (a) Proxy
 - (b) Service
 - (c) Network
 - (d) None of the above
31. The concept of electronic cash is to execute payment by
- (a) Credit Card
 - (b) ATM Card
 - (c) Using computers over network
 - (d) Cheque
32. In Electronic cash payment
- (a) a debit card payment system is used
 - (b) a customer buys several electronic coins which are digitally signed by coin issuing bank
 - (c) a credit card payment system is used
 - (d) RSA cryptography is used in the transactions
33. In cheque payment protocol, the purchase order form is signed by purchaser using
- (a) his public key
 - (b) his private key
 - (c) his private key using his signature hardware
 - (d) various public keys
34. The Secure Electronic Transaction protocol is used for
- (a) credit card payment
 - (b) cheque payment
 - (c) electronic cash payments
 - (d) payment of small amounts for internet services

35. In electronic cheque payments developed, it is assumed that most of the transactions will be
- (a) customers to customers
 - (b) customers to business
 - (c) business to business
 - (d) banks to banks
36. In Electronic cash payment:
- (i) a customer withdraws “coins” in various denominations signed by the bank
 - (ii) the bank has a database of issued coins
 - (iii) the bank has a database of spent coins
 - (iv) the bank cannot trace a customer
- (a) i, ii
 - (b) i, ii, iii
 - (c) i, ii, iii, iv
 - (d) ii, iii, iv
37. The responsibility of a certification authority for digital signature is to authenticate the
- (a) hash function used
 - (b) private keys of subscribers
 - (c) public keys of subscribers
 - (d) key used in DES
38. Certification of Digital signature by an independent authority is needed because
- (a) it is safe
 - (b) it gives confidence to a business
 - (c) the authority checks and assures customers that the public key indeed belongs to the business which claims its ownership
 - (d) private key claimed by a sender may not be actually his
39. In public key encryption system if A encrypts a message using his private key and sends it to B
- (a) if B knows it is from A he can decrypt it using A’s public key
 - (b) Even if B knows who sent the message it cannot be decrypted
 - (c) It cannot be decrypted at all as no one knows A’s private key
 - (d) A should send his public key with the message

40. A firewall may be implemented in
- (a) routers which connect intranet to internet
 - (b) bridges used in an intranet
 - (c) expensive modem
 - (d) user's application programs
41. Which of the following most accurately describes a transaction wherein online selling of goods and services goes to final consumers?
- (a) B2C
 - (b) B2B
 - (c) C2B
 - (d) C2C
42. With respect to the dollar volume for transactions, which of the following Internet domains is expected to reach more than three trillion by 2003?
- (a) B2C
 - (b) B2B
 - (c) C2B
 - (d) C2C
43. Much of B2B e-commerce takes place in _____, which are huge e-marketplaces in which buyers and sellers find each other online, share information, and complete transactions efficiently.
- (a) global networks
 - (b) private trading networks
 - (c) open trading networks
 - (d) Oracle trading networks
44. Which of the following would be the most appropriate example of a transaction site?
Amazon.com
- (a) Yahoo
 - (b) AOL
 - (c) eBay
45. Which of the following would be the most appropriate example of a search engine/portal?
- (a) Amazon.com
 - (b) Yahoo
 - (c) AOL
 - (d) eBay

- 46 eBay puts buyers in touch with sellers and takes from a 1.25 percent to a 5 percent commission on each sale. This would be an illustration of which of the following sources of e-commerce revenue?
- (a) referral income
 - (b) product and service sales income
 - (c) profile income
 - (d) transaction commissions and fees
- 47 Click-and-mortar companies are becoming more popular. Of the top 50 retail Web sites, ranked by the number of unique visitors, _____ were click-and-mortar retailers versus their Internet-only retailing counterparts.
- (a) percent
 - (b) 56 percent
 - (c) 68 percent
 - (d) 75 percent
- 48 A company provides information about its history, its mission and philosophy, and the products and services that it offers on its:
- (a) e-mail and Webcasting site.
 - (b) corporate Web site.
 - (c) online advertising or promotion Web site.
 - (d) Web community site.
- 49 Which of the following marketing practices would be about the same thing as the Internet practice of viral marketing?
- (a) coupon clipping
 - (b) word-of-mouth marketing
 - (c) disintermediation
 - (d) tele-marketing
- 50 Webcasting is also known as _____, as it affords an attractive channel through which online marketers can deliver their Internet advertising or other information content.
- (a) pull programming
 - (b) push programming
 - (c) customized programming
 - (d) viral programming

- 51 The term e-commerce includes
- (a) Electronic trading of Physical goods and intangibles such as information.
 - (b) The electronic provision of services such as after sales support or online legal advice
 - (c) All the steps involved in trade, such as on-line marketing ordering payment and support for delivery.
 - (d) All of the above.
- 52 Which of the following is the largest community in classification of e-commerce?
- (a) Business to Business (B to B)
 - (b) Business to Consumer (B to C)
 - (c) Business to Government (B to G)
 - (d) Government to Government (G to G)
- 53 Which of the following is not the example of business to consumer (B to C) e-commerce?
- (a) Amazon.com
 - (b) e-bay.com
 - (c) dell.com
 - (d) lastminute.com
- 54 The types of Business to Business e-commerce are
- (a) Direct selling and support to Business
 - (b) Industry portals
 - (c) Information sites about a industry
 - (d) All of the above
- 55 Which of the following are the benefits of E-marketing?
- i) Speed
 - ii) Reach and Penetration
 - iii) Ease and Efficiency
 - iv) Low Cost
 - v) Targeted audience
- (a) i, ii, iii and iv only
 - (b) ii, iii, iv and v only
 - (c) i, iii, iv and v only
 - (d) All i, ii, iii, iv and v
- 56 is the process of recreating a design by analyzing a final product.
- (a) Forward Engineering
 - (b) Reverse Engineering

- (c) Backward Engineering
 - (d) None of the above
- 57 is simply the use of electronic means to transfer funds directly from one account to another, rather than by cheque or cash.
- (a) M-Banking
 - (b) O-Banking
 - (c) E-Banking
 - (d) D-Banking
- 58 The telephone banking service includes
- i) Automatic balance voice out
 - ii) Inquiry all term deposit account
 - iii) Direct cash withdraw
 - iv) Utility Bill payments
 - v) Voice out last five transactions
- (a) i, ii, iii and v only
 - (b) i, ii, iv and v only
 - (c) ii, iii, iv and v only
 - (d) All i, ii, iii, iv and v
- 59 Which of the following are the forms of E-banking?
- i) Internet Banking
 - ii) Telephone Banking
 - iii) Electronic Check conversion
 - iv) Electronic Bill Payment
 - v) Direct Deposit
- (a) i, ii, iii and iv only
 - (b) ii, iii, iv and v only
 - (c) i, iii, iv and v only
 - (d) All i, ii, iii, iv and v
- 60 What is the full form of SWIFT?
- (a) Society for Worldwide Internet Financial Telecommunications.
 - (b) Secret Wide Interbank Financial Telecommunications
 - (c) Society for Worldwide Interbank Financial Telecommunications
 - (d) None of the Above
- 61 Ripple DES
- (a) Cannot be broken in reasonable time using presently available computers.
 - (b) Can be broken only if the algorithm is known using even slow computer.
 - (c) Can be broken with presently available high performance computers.
 - (d) It is impossible to break ever.

- 62 Public key encryption method is a system
- (a) which uses a set of public keys one for each participant in e-Commerce
 - (b) in which each person who wants to communicate has two keys
 - (c) which uses the RSA coding system.
 - (d) which is a standard for use in e-Commerce.
- 63 In public key encryption if A wants to send an encrypted message
- (a) A encrypts message using his private key
 - (b) A encrypts message using B's private key
 - (c) A encrypts message using B's public key
 - (d) A encrypts message using his public key
- 64 A digital signature is
- (a) a bit string giving identity of a correspondent
 - (b) a unique identification of a sender
 - (c) an authentication of an electronic record by tying it uniquely to a key only a sender knows
 - (d) an encrypted signature of a sender
- 65 Hashed message is signed by a sender using
- (a) his public key
 - (b) his private key
 - (c) receiver's public key
 - (d) receiver's private key
- 66 The Secure Electronic Transaction protocol is used for
- (a) credit card payment
 - (b) cheque payment
 - (c) electronic cash payments
 - (d) payment of small amounts for internet services
- 67 In cheque payment protocol, the purchase order form is signed by purchaser using
- (a) his public key
 - (b) his private key
 - (c) his private key using his signature hardware
 - (d) various public keys
- 68 A firewall may be implemented in
- (a) routers which connect intranet to internet
 - (b) bridges used in an intranet

- (c) expensive modem
- (d) user's application programs

69 Kerberos is an encryption-based system that uses

- (a) Secret key encryption
- (b) Public key encryption
- (c) Private key encryption
- (d) Data key encryption

70 A widely used method that uses the same key to encrypt and decrypt a data transmission is referred to as

- (a) PKI.
- (b) Digital signature.
- (c) DES.
- (d) none of the above

Ans: (1)(a), (2)(c), (3)(b), (4)(a), (5)(b), (6)(d), (7)(d), (8)(c), (9)(c), (10)(c), (11)(d), (12)(a), (13)(a), (14)(a), (15)(b), (16)(a), (17)(a), (18)(b), (19)(a), (20)(d), (21)(d), (22)(c), (23)(a), (24)(a), (25)(b), (26)(a), (27)(a), (28)(c), (29)(a), (30)(a), (31)(c), (32)(b), (33)(c), (34)(a), (35)(c), (36)(b), (37)(c), (38)(c), (39)(a), (40)(a), (41)(a), (42)(b), (43)(c), (44)(d), (45)(b), (46)(d), (47)(b), (48)(b), (49)(b), (50)(b), (51)(d), (52)(a), (53)(b), (54)(d), (55)(d), (56)(b), (57)(c), (58)(b), (59)(d), (60)(c), (61)(a), (62)(b), (63)(c), (64)(c), (65)(b), (66)(a), (67)(c), (68)(a), (69)(a), (70)(b)

(b) State Whether the Following Statements are True or False:

- 1 Cyber cash transaction system is based around secure credit card payments.
- 2 SET is not an open source.
- 3 Main goal of Micromint is to maximize the number of public key operations.
- 4 Minipay is developed by Intel.
- 5 Netcheque is a distributed accounting service for electronic cheques.
- 6 Atomicity refers to system's ability to ensure that no partial transactions or exchanges can take place.
- 7 Transactions are dependent on each other.
- 8 The grant of confidentiality by the payment system are non-essential to the user.
- 9 The amounts involved in Millicent are small.
- 10 NetBill server does not verify that the customer has sufficient money.

Ans. (1)(T), (2)(F), (3)(F), (4)(F), (5)(T), (6)(T), (7)(F), (8)(F), (9)(T), (10)(F)

(c) Fill in the Blanks:

- 1 Payment mechanisms can be broadly classified into 3 categories _____, _____ and _____.
- 2 _____ guarantees that the electronic currency is interoperable and exchangeable with other forms of e-cash.
- 3 _____ are the transactions that usually involve low payment value.
- 4 E-cash is available on _____, _____ and _____ platforms.
- 5 _____ is a smart card alternative to cash.
- 6 Millicent, a proprietary “Digital Micro commerce System” from _____ provides a way to buy and sell content in small amounts.
- 7 _____ is a payment mechanism for making small purchases over Internet.
- 8 Netbill uses a combination of _____ and _____ to ensure security.
- 9 _____ is an information access card that operates like a transportation fare card.
- 10 iKP is a _____ electronic system (postpaid/pre-paid).
- 11 C2C stands for _____.
- 12 An internal company network available through a Web browser is known as a(n) _____.
- 13 An intranet includes at least one server connected to many computers with _____ software installed.
- 14 Most intranets use _____ topology to connect the computers, printers and other peripherals physically
- 15 _____ is communications software that handles the actual physical connections between all devices on an intranet.

Ans. (1)(cash, cheques and credit cards), (2)(convertibility), (3)(micro payments), (4)(Unix, Windows and Macintosh), (5)(Mondex), (6)(Digital equipment), (7)(Micromint), (8)(Public key and private key), (9)(NetFare), (10)(postpaid), (11)(consumer-to-consumer), (12)(intranet), (13)(client), (14)(Ethernet), (15)(Middleware).

II Short Answer Type Questions:

- 1 Enumerate the various online payment systems.
- 2 What are the basic requirements of any payment system?
- 3 Briefly explain the concept of Micro, consumer and business payments.
- 4 Distinguish between pre-paid and post-paid payment system.
- 5 Explain the transaction flow in e-cash system.
- 6 Discuss the basic requirements of an online payment system.
- 7 What are the special considerations involved in the design of an online micro payment system?

- 8 Define interoperability in the context of online payment systems.
- 9 Describe what is meant by scalability, in an online payment system.
- 10 How electronic payment system differs with traditional payment systems?
- 11 Explain the working of PayPal.
- 12 What do you understand by payment gateways and how payment gateways work?
- 13 What do you mean by virtual PIN?
- 14 How electronic checks are advantageous over traditional checks?
- 15 How online banking is giving a push for e-commerce?
- 16 Write short note on Smart Card.
- 17 Explain in brief E-Wallet.
- 18 Explain the key characteristics of E-Money
- 19 Write difference between
 - (a) Atomicity and Isolation
 - (b) Scalability and interoperability
 - (c) Consistency and durability
- 20 Explain EFT.
- 21 Explain Briefly The B2B Electronic Payment Systems Stating The Application Of Each.
22. What is E-check?
23. What is e-tailing?
24. What is meant by M-Commerce?
25. What are three types of payment cards?
26. Define cookies.
27. What is electronic Payment? What are its characteristics?
28. What is electronic money? How it is secure from traditional money.
29. What are common electronic payment methods? Discuss them.
30. Discuss the basic requirements of an online payment system.
31. How is knowledge represented in knowledge base of an expert system?
- 32 Draw and explain the Data warehouse architecture for Insurance sector.
- 33 What types of support are provided by DSS in Insurance Sector?
- 34 What types of support are provided by DSS in Retail Sector?
- 35 What is the difference between ERP and BI?

III Long Answer Type Questions:

- 1 Differentiate between credit and debit cards.
- 2 Discuss the protocol developed by Visa and Master Card.
- 3 Distinguish between contact and contact less smart cards.
- 4 “Online shopping is changing market dynamics”. Comment.
- 5 Briefly explain the concept of digital and cyber cash.

- 6 What are online payment methods? What are the risks involved in Online Payment System
- 7 Explain in detail how smart cards work.
- 8 What are the requirements of Internet Based payments? Explain
- 9 What is credit card laundering? How do you think it can be prevented?
- 10 Electronic Payment System is prerequisite for the success of electronic business. Comment.
What are the issues in electronic Payment systems in Indian context?
- 11 Explain briefly the working of a credit Payment system over any other transaction.
- 12 Explain in detail the ACID test.
- 13 What is electronic payment system? Electronic business is incomplete without electronic payment system. Comment.
- 14 Explain the process of online payment in the arena of e-commerce. Explain clearly the “authorization” and “settlement” processes and how are they affected in respect of e-commerce?
- 15 What are the different possible methods of payment over internet? Explain the working of credit card or any electronic payment system over internet?
- 16 Difference between electronic payment system and traditional payment systems?
17. Discuss various infrastructure issues in Electronic payment systems in India.
18. Explain the legal, ethical and privacy issues for safety of e-payment made by a customer with a case study.
19. Illustrate briefly the contracts and warranties used in providing privacy to E-commerce transactions.
20. What is e-payment? State the principles of e-fund transfer. Why is orientation and standardization required for e-payment businesses?
21. Explain about certificate issuance in Master card/Visa Secure electronic transaction.
22. What is e-payment? Discuss the functions of e-payment system? Why is orientation and standardization required for e-payment business?
23. What is Smart card? Explain step by step by procedure to define the working of Payment by Smart card.
24. Explain the following:
 - (a) Digital Cash
 - (b) Electronic Cheque
25. What is Smart Card? Define various characteristics of it.
26. Describe the process to make a transaction by using Electronic cash. Explain the Advantages of Electronic Cash.
27. Differentiate between structured decision, semi structured decisions and unstructured decision. Give examples of semi structured decisions and unstructured decisions.
- 28 Explain the architecture of an expert system? What are its application areas?
- 29 The current trends in hardware/software technology make data warehousing feasible. Explain via some examples how exactly technology trends do help.

- 30 You are the IT Directors of a nationwide insurance company. Write a memo to the Executive Vice President explaining the types of opportunities that can be realized with readily available strategic information.
- 31 For an airlines company, how can strategic information increase the number of frequent flyers? Discuss giving specific details.

UNIT - IV

I Test Your Skills:

A. Multiple choice questions

1. E-money is amedium for making payments
 - (a) Digital
 - (b) Electronic
 - (c) Both (a) and (b)
 - (d) None of the above

2. Acid test is a set of properties of money transfer that include
 - (a) Atomicity and isolation
 - (b) Consistency and durability
 - (c) Both (a) and (b)
 - (d) None of the above

3. In.....,each transaction must be independent
 - (a) Consistency
 - (b) Isolation
 - (c) Durability
 - (d) None of the above

4. In ICES test, C means
 - (a) Consistency
 - (b) Complexity
 - (c) Conservation
 - (d) None of the above

5. Electronic payment is a financial transaction madethe use of paper documents
 - (a) With

- (b) Without
 - (c) Both (a) and (b)
 - (d) None of the above
6. Electronic payment media can be grouped into
- (a) Trusted third party type
 - (b) Notational fund transfer related type
 - (c) Authentication type
 - (d) All of the above
7. is a type of EPS
- (a) Credit card
 - (b) Debit card
 - (c) Smart card
 - (d) All of the above
8. Smart card is same as.....
- (a) Credit card
 - (b) Debit card
 - (c) Both (a) and (b)
 - (d) None of the above
9. Debit card is used for
- (a) On line transactions
 - (b) Off line transaction
 - (c) Both (a) and (b)
 - (d) None of the above
10.card is a card with a built-in chip capable of storing information in its memory
- (a) Debit
 - (b) Credit
 - (c) Smart
 - (d) None of the above
11. Applications of smart card are:
- (a) Government
 - (b) Identification
 - (c) Health care
 - (d) All of the above

12. is an application of smart card
- (a) ATM
 - (b) Telecommunication
 - (c) Transportation
 - (d) None of the above
13. EFT is a computer based system
- (a) True
 - (b) False
14. EFT is
- (a) Electronic Fund Transfer
 - (b) Electrical fund transfer
 - (c) Electronic fast transfer
 - (d) None of the above
15.cards andcards are two ways to make payments on a web site
- (a) Debit and smart
 - (b) Credit and debit
 - (c) Credit and smart
 - (d) None of the above
16.allows the transfer of money itself
- (a) Digital cash
 - (b) Electronic money
 - (c) Both (a) and (b)
 - (d) None of the above
17. E-money has.....types
- (a) 3
 - (b) 4
 - (c) 5
 - (d) 6
18. _____ is the type of e-money
- (a) Paisa – Pay
 - (b) Digital Wallet
 - (c) Virtual Cloud
 - (d) Digital Signature

19. The way to hide digital information is through.....
- (a) Cryptography
 - (b) Digital certificate
 - (c) Digital signature
 - (d) None of the above
20. Main models of internet based payment system are:
- (a) Electronic currency
 - (b) Credit card
 - (c) Debit card
 - (d) All of the above
21.card is a model of IPS
- (a) Smart
 - (b) Debit
 - (c) Credit
 - (d) All of the above
22. Payment systems via the internet include
- (a) Cyber cash
 - (b) First virtual
 - (c) Both (a) and (b)
 - (d) None of the above
23.cards directly transfer funds from consumers bank account to the merchant's
- (a) Debit
 - (b) Credit
 - (c) Both (a) and (b)
 - (d) None of the above
24. Credit cardsconvenient for making small purchases
- (a) Are
 - (b) Are not
 - (c) Both (a) and (b)
 - (d) None of the above
25. ACH is
- (a) Acid consistency house
 - (b) Acitomated clearing house

- (c) Automated consistency house
 - (d) None of the above
26. A revenue model is typically:
- (a) one element of a business model.
 - (b) the main component of a business model.
 - (c) the same as a business model.
 - (d) both the second and third answer above
 - (e) none of the above
27. Google.com is an example of a:
- (a) Destination site
 - (b) Portal
 - (c) Search engine
 - (d) None of the above
28. Currency used in e-business transactions around the world
- (a) Dollars
 - (b) Rupees
 - (c) None of the above
 - (d) All of the above
29. _____ is an example of an auction site
- (a) e-bay
 - (b) Ibibo
 - (c) Facebook
 - (d) Orkut
30. What items are traded in e-business
- (a) Consumer durables
 - (b) Pharmaceutical products
 - (c) Industrial goods
 - (d) All of the above
31. Once segments have been identified, organisations need to define how best to position their online services relative to competitors according to four main variables: product quality, service quality, and fulfillment time. Which variable is missing?
- (a) After sales service
 - (b) Brand perception
 - (c) Customer value

- (d) Price
32. What could be an implication for an organisation if an e-business strategy is not clearly defined?
- (a) Clear direction of e-business strategy
 - (b) Effective integration of e-business at a technical level
 - (c) Greater opportunities from evaluation of opportunities
 - (d) None of the above are applicable
33. Before developing any type of strategy, a management team needs to agree the process they will follow for generating and then implementing the strategy. A framework that gives a logical sequence to follow to ensure inclusion of all key activities of an e-business strategic development is generally known as:
- (a) An E-channel strategy
 - (b) E- business stratification process
 - (c) A strategy process model
 - (d) Multi-channel e-business strategy
34. The approach by which applications of internal and external electronic communications can support and influence strategy is a definition of:
- (a) Corporate Strategy
 - (b) E-channel strategy
 - (c) E-business strategy
 - (d) E-business responsibility
35. A(n) _____ is a private corporate network that uses standard Internet protocols and interfaces.
- (a) ethernet
 - (b) extranet
 - (c) local area network
 - (d) intranet
36. When measuring the effectiveness on an online advertisement, the _____ is the percentage of visitors to a page who click on an advertisement.
- (a) click ratio
 - (b) click rate
 - (c) click-through rate
 - (d) hit ratio

37. RACE is a practical framework to help marketers manage and improve the commercial value gained from digital marketing. The term stands for Reach, Act, C, Engage. What does 'C' refer to?
- (a) Collaborate
 - (b) Collect
 - (c) Consolidate
 - (d) Convert
38. A strength of social media and viral marketing is:
- (a) Cannot be ignored in user's inbox
 - (b) Considered credible
 - (c) It is possible to reach a large number at relatively low cost
 - (d) Highly targeted with controlled costs
39. In future, some suggest that the task of searching for suppliers and products may be taken over by computer programmes which have defined rules or some degree of intelligence that replicates human neural functioning. These programmes are known as:
- (a) Spider search engines
 - (b) HTML
 - (c) E-marketplace search engines
 - (d) Software intelligent agents
40. Security is a serious concern for e-business managers and there are many potential risks concerning unauthorised access to customer and company data. One way this occurs is through misleading users through setting up a bogus website and gaining user details online. What is this method known as?
- (a) Denial of service
 - (b) Phishing
 - (c) Malware
 - (d) Firewalling
41. The Internet was launched in 1969 and was originally called
- (a) AARNET
 - (b) CERNET
 - (c) CERN
 - (d) ARPANET
42. The fastest-growing application for the Internet is
- (a) going shopping
 - (b) conducting research

- (c) playing games, reading, and listening to music
 - (d) using e-mail
- 43 The most common method for gaining access to the Internet is through a _____.
- (a) dumb terminal
 - (b) virtual provider or computer
 - (c) point-to-point computer
 - (d) provider or host computer
- 44 The term ISP refers to
- (a) internal software protocol
 - (b) international shareware pool
 - (c) Internet service provider
 - (d) interface standard protocol
- 45 These types of commercial Internet service providers are the most widely used
- (a) national service providers
 - (b) regional service providers
 - (c) centralized service providers
 - (d) decentralized service providers
- 46 When surfing the Web, the browser interprets the HTML command found in a document file, and displays it as a(n)
- (a) Applet page
 - (b) Java page
 - (c) Web page
 - (d) domain page
- 47 Which of the following are not required in order to send and receive e-mail?
- (a) e-mail account
 - (b) Web page
 - (c) access to the Internet
 - (d) e-mail program
- 48 _____ includes all electronics-based information exchanges within or between companies and customers.
- (a) E-commerce
 - (b) E-marketing
 - (c) E-communication
 - (d) E-business

- 49 _____ involves buying and selling processes supported by electronic means, primarily the Internet.
- (a) E-commerce
 - (b) E-marketing
 - (c) E-communication
 - (d) E-business
- 50 The flip side of e-marketing is:
- (a) e-advertising.
 - (b) e-selling.
 - (c) e-commerce.
 - (d) e-purchasing.
- 51 Which of the following describes e-commerce?
- (a) Doing business electronically
 - (b) Doing business
 - (c) Sale of goods
 - (d) All of the above
- 52 Which of the following is part of the four main types for e-commerce?
- (a) B2B
 - (b) B2C
 - (c) C2B
 - (d) All of the above
- 53 Which segment do eBay, Amazon.com belong?
- (a) B2Bs
 - (b) B2Cs
 - (c) C2Bs
 - (d) C2Cs
- 54 Which type of e-commerce focuses on consumers dealing with each other?
- (a) B2B
 - (b) B2C
 - (c) C2B
 - (d) C2C
- 55 Which segment is eBay an example?
- (a) B2B
 - (b) C2B

- (c) C2C
- (d) None of the above

56 Which type deals with auction?

- (a) B2B
- (b) B2C
- (c) C2B
- (d) C2C

57. In which website Global Easy Buy is facilitated?

- (a) Ebay.com
- (b) Amazon.com
- (c) Yepme.com
- (d) None of these

58 The best products to sell in B2C e-commerce are:

- (a) Small products
- (b) Digital products
- (c) Specialty products
- (d) Fresh products

59 Which products are people most likely to be more uncomfortable buying on the Internet?

- (a) Books
- (b) Furniture
- (c) Movies
- (d) All of the above

60 Which products are people most likely to be comfortable buying on the Internet?

- (a) Books
- (b) PCs
- (c) CDs
- (d) All of the above

61 A.....is a device that includes an embedded integrated circuit Chip [ICC] that can be either a secure micro controller or equivalent intelligence with internal memory or a memory chip alone.

- (a) smart Cards
- (b) E-Cheques
- (c) E-cash
- (d) none of these

- 62is a kind of payment card that transfers fund directly from the consumer's bank account to the merchants account
- (a) Debit Card
 - (b) Electronic purse
 - (c) credit card
 - (d) any of these
- 63is the system of purchasing cash credits in relatively small amounts, storing the credits in our computer, and then spending them, when making electronic purchases over the internet.
- (a) E-cash
 - (b) Digicash
 - (c) Cyber cash
 - (d) any of these
- 64 Tool that is used to transfer data/files among computers on the Internet
- (a) FTP
 - (b) Archie
 - (c) TCP
 - (d) Gopher
- 65 E-commerce managers aim to deliver the most effective mix of communications to drive traffic to their e-commerce sites. The different techniques can be characterised as:
- (a) Digital media channels
 - (b) Online marketing communications
 - (c) Offline marketing communications
 - (d) All of the above
- 66 Building and sustaining long term business with customers is the aim of :
- (a) Customer relationship management
 - (b) Customer management
 - (c) Electronic customer relationship management
 - (d) Customer acquisition
- 67 A factor which will improve results from search engine optimization is:
- (a) Partnering with popular sites with pages relevant to your offering
 - (b) Including the copy of a search term within a site's web page
 - (c) Ensuring that partners can gain good earnings per click
 - (d) Developing effective ad copy which encourages clickthrough

- 68 A key CRM technique is to encourage existing customers to recommend friends or colleagues to purchase. This is:
- (a) Referral
 - (b) Cross-sell
 - (c) Reactivation
 - (d) Up-sell
- 69 Main function of proxy application gateway firewall is :
- (a) to allow corporate users to use efficiently all internet services
 - (b) to allow intranet users to securely use specified internet services
 - (c) to allow corporate users to use all internet services
 - (d) to prevent corporate users from using internet services
- 70 Which of the following choices indicates what the e-business infrastructure component known as Server hardware can be?
- (a) Storage
 - (b) Databases
 - (c) Routers
 - (d) None of the above

Ans: (1)(a), (2)(c), (3)(b), (4)(a), (5)(b), (6)(d), (7)(d), (8)(c), (9)(c), (10)(c), (11)(d), (12)(a), (13)(a), (14)(a), (15)(b), (16)(a), (17)(a), (18)(b), (19)(a), (20)(d), (21)(d), (22)(c), (23)(a), (24)(a), (25)(b), (26)(a), (27)(c), (28)(c), (29)(a), (30)(d), (31)(d), (32)(d), (33)(c), (34)(c), (35)(d), (36)(c), (37)(d), (38)(c), (39)(d), (40)(b), (41)(d), (42)(a), (43)(d), (44)(c), (45)(a), (46)(c), (47)(b), (48)(d), (49)(a), (50)(d), (51)(a), (52)(d), (53)(b), (54)(d), (55)(d), (56)(d), (57)(a), (58)(b), (59)(b), (60)(d), (61)(a), (62)(a), (63)(d), (64)(c), (65)(d), (66)(a), (67)(b), (68)(a), (69)(b), (70)(b)

(a) Fill in the Blanks:

- 1 _____ is the use of mobile devices to communicate, inform transact and entertain using text and data via a connection to public and private networks.
- 2 MSC stand for _____.
- 3 _____ is the exchange of data using existing communication networks.
- 4 The mobile data communications market is becoming dominator by a technology called _____.
- 5 WAP stands for _____.
- 6 The WAP model consists of _____ layers.
- 7 1G technology was designed to transmit voice phone calls from _____.
- 8 _____ handles the allocation and other regulatory issues.

- 9 _____ is a Markup based document publishing language.
- 10 _____ are the new intermediaries that quickly enable mobile commerce.
- 11 _____, the revolutionary Internet bookseller, was founded in 1994.
- 12 The principles of _____, conducting business transactions through telecommunications networks, became Internet based in the 1990s.
- 13 Internet-based companies are referred to as _____.
- 14 _____ is a new growing type of e-commerce using small computers, cellular phones, PDAs, etc. connected to the Internet or an intranet.
- 15 A family owned traditional restaurant is an example of a _____ and mortar company.

Ans. (1)(M-commerce), (2)(Mobile Switching Centre), (3)(Data communication), (4)(Cellular Digital Packet Data (CDPD)), (5)(Wireless Application Protocol), (6)(5), (7)(Wireless handsets), (8)(Telecom Regulatory Authority of India (TRAI)), (9)(WML (Wireless Markup Language)), (10)(Mobile Commerce Applications Service Providers (MASP)), (11)(Amazon.com), (12) (e-commerce), (13)(dot coms), (14)(M-business), (15)(brick).

II Short Answer Type Questions:

- 1 What is mobile commerce?
- 2 Describe any four major advantages offered by the mobile commerce environment as compared to commerce over a wired network.
- 3 List and explain the major impediments faced by the mobile commerce environment.
- 4 Define the architectural framework of mobile commerce.
- 5 Describe and distinguish between 1G, 2G, 2.5G and 3G mobile networks.
- 6 What is the minimum functionality required of a base station in a AMPS?
- 7 What do you understand by “Global System for Mobile Communication”?
- 8 List and describe the functions of major subsystems of a GSM network.
- 9 List the databases maintained by the MSC in a GSM network and describe the purpose of each of these databases.
- 10 What is GPRS? How does it achieve the higher data rates?
- 11 Compare and contrast EDGE with GPRS.
- 12 What is 3G network? Describe the five ITU approved 3G standards.
- 13 What do you understand by Wireless Access Protocol? Describe the purpose of the WAP Gateway?
- 14 What are important layers in WAP? Describe te function of each of these layers.
- 15 What is i-Mode service?
- 16 Why do we need mobile device compatible languages for publishing content for handheld devices? Give two examples of such languages.

- 17 What are the four fundamental security issues in commerce and what is the impact of the mobile commerce environment on these issues?
- 18 What are the online payment issues in mobile commerce?
- 19 What type of payment models have been used in mobile commerce?
- 20 Define issuer-centric and mobile network operator-centric payment models.
- 21 What are the important revenue streams on which sustainable businesses can be built in the mobile commerce environment?
- 22 Describe the additional benefits offered by location and search services in the mobile commerce environment as compared to the wired network environment.
- 23 What do you understand by business models?
- 24 Explain the click and mortar model.
- 25 What is Digital Commerce?
- 26 Write short note on Search Engine.
- 27 Write short note on Reverse Auction.
- 28 Define and differentiate between an infomediary and a metamediary.
- 29 Describe the taxonomy of the business models which can be used.
- 30 What is an affiliate model? Provide two examples of electronic commerce business that use this model.
- 31 Describe three different revenue models for a portal such as Yahoo!.
- 32 How are ebusiness models and strategies related?
- 33 What is the importance of supply chain management in E-commerce.
- 34 What are some of the factors that may impact a customer's buying decision.
- 35 What are the various electronic tokens that are used in electronic payment systems?
- 36 Differentiate between a smart card and credit card.
- 37 Write a short note on Ethical issues in Electronic Commerce.
- 38 Write a short note on Marketing strategies for promoting electronic business over web.
- 39 What is electronic marketing? Describe various tools used for electronic marketing.
- 40 Explain the link between e-marketing and e-business and why they may be considered separately.
- 41 What is Online Marketing? What are the advantages and limitations of it?
- 42 Describe the following:
 - A. Search Engine Marketing
 - B. Email Marketing
- 43 What is Electronic market Place? Describe it for Buyer and Seller.
- 44 How is the neural network model created? How can it make a prediction?
- 45 How is the space for clustering and nearest neighbour defined?
- 46 How Genetic algorithms works on the principle of survival of the fittest?
- 47 What is a "factless fact"? Explain with an example.
- 48 Discuss classification and Prediction in detail.

III Long Answer Type Questions:

- 1 Briefly discuss the emerging trends in e-commerce.
- 2 What is e-governance?
- 3 Enumerate some e-Governance projects undertaken.
- 4 Compare subscription Based Access Model and Prepaid Access Model.
- 5 “Virtual mall is a hosting site for many merchants, service providers, brokers and other businesses”.Comment.
- 6 What is the electronic store model? What are the major impediments faced by model in less developed countries.
- 7 What are the major advantages of the manufacturer model? Describe how the model reduces market friction and costs through a value chain analysis.
- 8 Describe some alternative revenue models for a web site from a magazine publisher.
- 9 Draw a diagram summarizing the different types of online marketplace.
- 10 For an organization you are familiar with, examine the alternative business and revenue models afforded by the Internet and assess the options for the type and location of e-commerce transitions.
- 11 Select an intermediary site and assess how well it makes use of the range of business models and revenue models available to it through the Internet.
- 12 Explain what a business model is and relate it to an Internet pure play of your choice.
- 13 Discuss briefly the status of E-Governance in the country.
- 14 What are the key challenges to proliferation of E-Governance in India?
- 15 What role do you envisage for the government in smooth conduct of E-Commerce in country?
- 16 Societal impacts of E-commerce?
- 17 Discuss legal and ethical issues in e – commerce?
- 18 Can you describe why Google is so important to running an online business? Can you make specific detailed recommendations that show what your client should do to gain maximum benefit from Google.
- 19 Describe the objectives and characteristics of web advertising. Also describe the major advertising methods used on the web.
- 20 What are the various revenue models adopted by organizations for E-Business. Explain.
- 21 What are the requirements for conducting e-commerce for an organization dealing in books and music titles?
- 22 Explain salient features of home banking. Also, discuss the management issues in connection with online banking.
- 23 Electronic Business changes the way business processes are performed in a organization. Comment. What are the changes that result from adopting electronic Business models? Give suitable examples.

- 24 What are the infrastructure requirements for adopting electronic business models? Illustrate with an example details of the hardware, software communication network and other tools that may be required to set up the e-Business?
- 25 What is Electronic market Place? Describe it for Buyer and Seller.
- 26 Explain step by step procedure of Online order Processing.
- 27 Explain Online Auctions in detail with example.
- 28 Write note on Advertisement and Marketing on internet.
- 29 Explain Electronics Customer Support 10. Explain Web-Catalogues.
- 30 Explain various internet protocols and how it is useful to E-commerce in detail.
- 31 Organizations doing business electronically are more risk prone. Do you agree? What are the additional security threats in Electronic Business?
- 32 What are the counter measures that address these security concerns? Give suitable illustrations.
- 33 Differentiate between symmetric and asymmetric cryptography.
- 34 How does firewall provide the protection to communication networks? Explain.