

Department of Biotechnology
Course for S.Y. B.Sc. Computer Science
Paper VIII-Research methodology Sample Question Bank
(Correct Answers are marked by Red)

| | | | |
|----|---|----|-------------------------|
| 1. | The search for knowledge through an objective and systematic method of finding a solution to a problem is _____. | | |
| a. | Survey | c. | Research |
| b. | Search | d. | None of these |
| 2. | <u> </u> is a type of investigation focused on understanding a particular phenomenon, study or law of nature. | | |
| a. | Applied Research | c. | Descriptive research |
| b. | Fundamental research | d. | Quantitative Research |
| 3. | The responses collected are essentially non-numerical in _____ research. | | |
| a. | Applied Research | c. | Descriptive research |
| b. | qualitative research | d. | Quantitative Research |
| 4. | A research that is based on observation and measurement of phenomena, as directly experienced by the researcher is called _____ research. | | |
| a. | Empirical Research | c. | Fundamental research |
| b. | Conceptual research | d. | Applied Research |
| 5. | <u> </u> aims at finding a solution for an immediate problem facing a society or an industrial/business organization. | | |
| a. | Descriptive research | c. | Empirical research |
| b. | Quantitative Research | d. | Applied research |
| 6. | What motivates a researcher to take a research: | | |
| a. | Desire to get a research degree | c. | intellectual joy |
| b. | Monetary benefits | d. | All of these |
| 7. | Which may not be an objective of research: | | |
| a. | Generate a new knowledge | c. | Test a hypothesis |
| b. | Analyze a general issue | d. | jealousy |

| | | | |
|-----|---|----|-----------------------|
| 8. | it is not a part of the research process: | | |
| a. | Formulating a problem | c. | Developing hypothesis |
| b. | Oral presentation | d. | Research design |
| | | | |
| | | | |
| 9. | _____ is tentative assumption made in order to draw out and test its logical or empirical consequences. | | |
| a. | Hypothesis | c. | Survey |
| b. | Data | d. | Interpretation |
| | | | |
| 10. | for Preparing the research design one should consider: | | |
| a. | Time | c. | Skills |
| b. | Cost | d. | All of these |
| | | | |
| 11. | _____ data can be collected either through experiment or through survey. | | |
| a. | Secondary | c. | Primary |
| b. | Binary | d. | All of these |
| | | | |
| 12. | In the case of a survey, data can be collected by _____ | | |
| a. | Personal interview | c. | Telephone interviews |
| b. | experimentation | d. | both a and c |
| | | | |
| | | | |
| 13. | List of books, journals, reports is called as _____ | | |
| a. | Index | c. | acknowledgement |
| b. | Bibliography | d. | Hypothesis |
| | | | |
| | | | |
| 14. | Which is not a criteria for good research | | |
| a. | Problem is well defined | c. | Honesty |
| b. | Results are not reproducible | d. | Citation |
| | | | |
| | | | |
| 15. | Good research is : | | |
| a. | logical | c. | both a and b |
| b. | empirical | d. | costly |
| | | | |
| | | | |
| 16. | Public reports are _____. | | |
| a. | Simple | c. | Clear |
| b. | Attractive | d. | All of these |
| | | | |

| | | | |
|----|---|----|--------------------------|
| | | | |
| 17 | This is not a feature of the technical report _____. | | |
| a. | Simple | c. | attractive |
| b. | complicated | d. | both a and c |
| | | | |
| 18 | Industry reports are the example of _____. | | |
| a. | technical report | c. | medical report |
| b. | public report | d. | general report |
| | | | |
| 19 | The main drawback of oral presentation is : | | |
| a. | Speaking skills | c. | Hesitation |
| b. | no permanent record | d. | Lots of suggestions |
| | | | |
| 20 | The main benefit of oral presentation is : | | |
| a. | Give-and-take decisions | c. | Stealing ideas of others |
| b. | No plagiarism | d. | All of these |
| | | | |
| 21 | Formulating the Research Problem is the _____ step of the research process. | | |
| a. | First | c. | Middle |
| b. | Second | d. | Last |
| | | | |
| 22 | Which of the following subject should not be chosen while selecting the Research Problem _____. | | |
| a. | Subject which is overdone | c. | Controversial subject |
| b. | Too narrow or too vague problems | d. | All of them |
| | | | |
| 23 | _____ are the specific difficulties or hurdles that one faces during the research process. | | |
| a. | Personal problem | c. | Academic problem |
| b. | Research problem | d. | Social problem |
| | | | |
| 24 | Statement of the problem in a general way, is one of the _____ involved in defining a research problem. | | |
| a. | Technique | c. | Step |
| b. | Method | d. | None of these |
| | | | |
| 25 | The researcher can himself state the problem or he can seek the guidance of the _____. | | |
| a. | Guide | c. | Friends |

| | | | |
|-----|--|----|---------------------------|
| b. | Subject expert | d. | Both 'a' and 'b' |
| | | | |
| 26. | After identifying and defining the Research problem researcher must arrange his ideas in order and write them in the form of an experimental plan or what can be described as _____. | a. | Research process |
| | | c. | Research Plan |
| | b. Research work | d. | None of these |
| | | | |
| 27. | _____ are those which have already been collected and analyzed by someone else. | a. | Secondary data |
| | | c. | Statistical data |
| | b. Primary data | d. | Quantitative data |
| 28. | The _____ are those which are collected afresh and for the first time, and thus happen to be original in character. | a. | Secondary data |
| | | c. | Statistical data |
| | b. Primary data | d. | Quantitative data |
| | | | |
| 29. | _____ should be clearly stated in a line or two which tells exactly what it is that the researcher expects to do. | a. | Research objective |
| | | c. | Research Results |
| | b. Research Method | d. | Research process |
| | | | |
| 30. | Which of the following are the methods of primary data collection_____. | a. | Observation method |
| | | c. | Interview method |
| | b. Through questionnaires & schedules | d. | All of them |
| | | | |
| 31. | A _____ consists of a number of questions printed or typed in a definite order on a form or set of forms. | a. | Research |
| | | c. | Questionnaire |
| | b. Data | d. | Result |
| | | | |
| 32. | Before using secondary data, researchers must see that the data possesses which of the following characteristics_____. | a. | Reliability of data |
| | | c. | Adequacy of data |
| | b. Suitability of data | d. | All of them |
| | | | |
| 33. | The _____ of collecting data involves presentation of oral-verbal stimuli and reply in terms of oral-verbal responses. | a. | Interview method |
| | | c. | Survey method |
| | b. Observation method | d. | None of these |

| | | | |
|-----|--|----|--|
| | | | |
| 34. | _____ is essentially an intensive investigation of the particular unit under consideration. | | |
| a. | Case study | c. | Field study |
| b. | Experiment study | d. | Survey study |
| | | | |
| 35. | _____ refers to the task of drawing inferences from the collected facts after an analytical and/or experimental study. | | |
| a. | Interpretation | c. | Result |
| b. | Data collection | d. | Conclusion |
| | | | |
| 36. | State true or false: Researcher must not be in a hurry while interpreting results. | | |
| a. | True | c. | - |
| b. | False | d. | - |
| | | | |
| 37. | Which of the following PRECAUTIONS should be taken during interpretation _____. | | |
| a. | Data are appropriate | c. | Data reflect good homogeneity |
| b. | Proper data analysis | d. | All of them |
| | | | |
| 38. | _____ can arise due to false generalization and/or due to wrong interpretation of statistical measures. | | |
| a. | Errors | c. | Results |
| b. | Questions | d. | None of these |
| | | | |
| 39. | It is only through _____, the researcher can expose relations and processes that underlie his findings. | | |
| a. | Interpretation | c. | Observation |
| b. | Experiment | d. | Results |
| | | | |
| 40. | State true or false: Researchers can better appreciate only through interpretation. | | |
| a. | True | c. | - |
| b. | False | d. | - |
| | | | |
| 41. | What is the primary purpose of research design? | | |
| a. | Collection of data only | c. | Arrangement of conditions for data collection and analysis |
| b. | Analysis of data only | d. | Presentation of research findings |
| | | | |
| 42. | Which characteristic is NOT associated with a good research design? | | |

| | | | |
|-----|--|----|---|
| a. | Flexibility | c. | Efficiency |
| b. | Maximum bias | d. | Economy |
| | | | |
| 43. | Which concept refers to a variable that depends on other variables? | | |
| a. | Dependent variable | c. | Extraneous variable |
| b. | Independent variable | d. | Control variable |
| | | | |
| 44. | What is the purpose of controlling extraneous variables in research? | | |
| a. | To increase bias | c. | To create confounded relationships |
| b. | To enhance reliability | d. | To manipulate independent variables |
| | | | |
| 45. | In non-experimental hypothesis-testing research, which variable is not manipulated? | | |
| a. | Independent variable | c. | Extraneous variable |
| b. | Dependent variable | d. | Control variable |
| | | | |
| 46. | What is the primary purpose of experimental units? | | |
| a. | Data collection | c. | Application of treatments |
| b. | Data analysis | d. | Selection of samples |
| | | | |
| 47. | Which type of experiment compares the impact of multiple factors? | | |
| a. | Absolute experiment | c. | Extraneous experiment |
| b. | Comparative experiment | d. | Control experiment |
| | | | |
| 48. | Which characteristic is NOT associated with a good research design? | | |
| a. | Tailored to the research problem | c. | Maximizes experimental error |
| b. | Considers available resources | d. | Aligns with research objectives |
| | | | |
| 49 | What is the primary objective of exploratory research studies? | | |
| a. | Testing hypotheses | c. | Describing characteristics of individuals or groups |
| b. | Developing problem formulations or hypotheses | d. | Determining the frequency of occurrences |
| | | | |
| 50 | Which method is NOT typically used in exploratory research design? | | |
| a. | Literature survey | c. | Analysis of 'Insight-Stimulating' Examples |
| b. | Experience survey | d. | Experimental studies |
| | | | |
| 51 | Which principle of experimental design involves repeating the basic experiment for all treatments? | | |

| | | | |
|----|--|----|---|
| a. | Replication | c. | Local control |
| b. | Randomization | d. | Literature survey |
| 52 | What is the purpose of randomization in experimental designs? | | |
| a. | To assign treatments to experimental units randomly | c. | To decrease experimental error variability |
| b. | To increase bias | d. | To ensure a balanced arrangement of treatments |
| 53 | Which step is NOT involved in descriptive/diagnostic study design? | | |
| a. | Bias protection | c. | Method selection |
| b. | Pretesting data collection instruments | d. | Conducting literature surveys |
| 54 | What is the primary aim of local control in experimental designs? | | |
| a. | To ensure a balanced arrangement of treatments | c. | To increase bias |
| b. | To reduce experimental error variability | d. | To eliminate the need for replication |
| 55 | Why are research reports considered vital in the research process? | | |
| a. | To complete the research process | c. | To communicate insights effectively |
| b. | To ensure findings reach their full potential | d. | All of the above |
| 56 | What is the purpose of preparing the final outline in report writing? | | |
| a. | To analyze the subject matter logically | c. | To prepare the rough draft |
| b. | To create a structured framework | d. | To compile the bibliography |
| 57 | What is the main focus of rewriting and polishing in report writing? | | |
| a. | Creating the rough draft | c. | Reviewing and revising for clarity and coherence |
| b. | Compiling the bibliography | d. | Adding illustrations and examples |
| 58 | What is the correct order for listing books and pamphlets in the bibliography? | | |
| a. | Title, author's name, place of publication, date of publication | c. | Place of publication, author's name, title, date of publication |
| b. | Author's name, title, date of | d. | Date of publication, place of |

| | publication, place of publication | | publication, author's name, title |
|----|--|----|---|
| | | | |
| 59 | What is the layout of a research report comprised of? | | |
| a. | Preliminary pages, appendices, index | c. | Introduction, results, implications |
| b. | Main text, bibliography, acknowledgments it | d. | Preliminary pages, main text, end matter |
| | | | |
| 60 | What is the primary purpose of the summary section in a research report? | | |
| a. | To outline the research methodology | c. | To present statistical summaries |
| b. | To summarize the main findings and conclusions | d. | To compile the bibliography |
| | | | |
