

**B.Sc. BIOTECHNOLOGY
Fifth Semester (Repeat)
RESEARCH METHODOLOGY
(BBT - 24)**

Duration: 3Hrs.

Full Marks: 70

Part-A (Objective) =20
Part-B (Descriptive) =50

(PART-B: Descriptive)

Duration: 2 hrs. 40 mins.

Marks: 50

Answer the following questions:

1. Write short notes on the following: (2×5=10)
 - i. Objective of research
 - ii. Depth interview
 - iii. Literature survey
 - iv. Research motivation
 - v. Paired t-test
2. Write in details on 'Experience Survey', explaining fully its utility in exploratory research studies. (10)

Or

What are the guiding considerations in the construction of 'questionnaire'? Explain. (10)
3. Define research report. Describe the layout of a research report covering all relevant points. (3+7=10)

Or

'Processing of data implies editing, coding, classification and tabulation'. Discuss the significance of each in context of research study. (10)

4. What do you understand by 'significance of research'? How the research activities influence in the life of the researcher and on the society? (5+5=10)

Or

Discuss the criteria/characteristics of good research. (10)

5. What do you mean by 'Sampling design'? What are the points, a researcher need to consider carefully, in determining a sample design for their research? (4+6=10)

Or

What is research design? Explain the importance of a research design. (4+6=10)

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Duration: 20 minutes

Marks – 20

(PART A - Objective Type)

I. Tick the correct answer:

1×10=10

1. The main aim of research is to establish the
(truth / false / belief).
2. Applied research is to
(acquire knowledge / solve society's immediate problem / develop theory).
3. T-test is applied to examine the significance of mean differences between
(two related samples of smaller size / multiple samples / samples of unknown sample size).
4. Research designs of a project is prepared on the basis of
(survey informations / hypothesis of study / overall aim of the project)
5. The first approach of any research work is
(collection of materials / survey of literature / procurement of equipments).
6. Computer technology and its applications have made research
(complicated / easy / dynamic).
7. After data collection, the researchers need to follow the task of
(preparing graph / analyzing the data / writing the report).
8. Classification of collected data to homogeneous groups is important
(for preparing project report / for data presentation / to get meaningful relationships).

9. Sequential sampling is usually adopted under

(field experimentations / statistically accepted sampling plan of quality control / laboratory scale experimentations).

10. In biological research, the term 'Variance' was first used by

(R. Ferber / R. A. Fisher / G. A. Ferguson)

II. Fill in the blanks:

1×10=10

1. Well designedhelp in collecting important informations and feed-backs from diverse areas for utilization by the researchers (interactions/questionnaires/discussions).

2. Bioinformatics proves to be an important..... of available informations related to research activities. (source / database/storage)

3. A search of for knowledge through objective and systematic method of finding solution to a problem is..... (experimentation, demonstration, research)

4. Inference drawing from experimental facts is performed through..... of data collected (Discussion/comparison/interpretation)

5. Themarker technology is considered to be the most reliable method for phylogenetic relationship studies (morphological/phylogenetic/molecular)

6. The act of selecting and constructing research technique is referred as..... (research methods/ research planning/research designing)

7. Research design in exploratory studies must be.....
(compromisable/flexible /definite)
8. A research scholar has to work as a..... and derive the truth.
(judge /expert/philosopher).
9. The..... marker technology is considered to be the most reliable
method for phylogenetic relationship studies (morphological/phylogenetic/molecular)
10. Findings from a logically designed systematic experimentation are defined as a result of
..... research work (good / meticulous/routine).
