F–3125	Sub. Code
	7PBC1C1

M.Phil DEGREE EXAMINATION, NOVEMBER 2019

First Semester

Biochemistry

RESEARCH METHODOLOGY

(CBCS – 2017 onwards)

Time : 3 Hours　　　　　　　　　　Maximum : 75 Marks

Part A　　　　　　　$(5 \times 5 = 25)$

Answer any **five** questions.

1.　Discuss in detail on the types of reports.

2.　Explain the importance of graph paper in data presentation.

3.　Write a short note on formulation of research questions.

4.　Discuss on global and local alignment.

5.　Explain the significance of Clustal Omega for multiple sequence alignment.

6.　Differentiate between native and denaturing polyacrylamide gels.

7.　Discuss on Sangers DNA sequencing method.

8.　Explain the different methods for protein estimation.

Part B (5 × 10 = 50)

Answer **all** the questions, choosing either (a) or (b).

9. (a) Define research and explain its characteristics.

Or

   (b) Elaborate on the steps involved in sampling.

10. (a) Discuss on the different statistical tools for data analysis.

Or

   (b) What is level of significance? Explain.

11. (a) Explain the different methods for construction of phylogenetic tree.

Or

   (b) What are structural databanks? Explain.

12. (a) Write short notes on the different types of chromatography techniques.

Or

   (b) Write a detailed note on the principle and applications of isotachophoresis.

13. (a) Differentiate between TEM and SEM.

Or

   (b) Write a detailed note on the principle and applications of ORD.

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