

## H-1603120602040400

## M. Sc. (Sem. IV) (CBCS) Examination

**April - 2023** 

**Biochemistry: EBC-4** 

- (Research Methodology) Time:  $2\frac{1}{2}$  Hours / Total Marks: 701 Answer briefly any seven of the following questions: 14 (A) Explain briefly about the types of research. (B) Mention the significance of research proposal. (C) What is the role of objectives in research. (D) Explain heuristic modeling. (E) Write the steps for hypothesis testing. What is degree of freedom? (F) (G) What is role of strategies in research design? (H) Mention the importance of statistical methods in research. Mention the use of internet. (I) Explain the mail merge steps in MS-Word. 14 Answer any Two of the following questions: (A) Explain in detail significance about review, research articles and literature survey in research. (B) Explain in detail Factorial experimental design.
- 2
  - (C) Write note on single factor experiment.
- 7 3 (A) What are the major steps and importance of research?
  - Write a note on the thesis writing, and importance of 7 (B) plagiarism certificate, declaration.

OR

- (C) Explain in detail about replication, randomization and blocking in research.
  (D) Write a note on guidelines for design of experiments.
- 4 Answer the following questions: 14
  - (A) Define in detail about random effects model in ANOVA.
  - (B) Write about the introduction, features, functions and application of spreadsheet tool.
- 5 Answer the following questions (Any Two): 14
  - (A) Discuss tools for graphical representation of the data.
  - (B) What kind of error can occur in statistics? Distinguish between them.
  - (C) Discuss about the search engine. Mention the difference between Google v/s. Google scholar.
  - (D) Enlist the various formulas and functions of Microsoft excel, discuss any two in detail.