

**MASTER OF SCIENCE (BIOTECHNOLOGY) (CBCS-2018 COURSE)**  
**M.Sc.(Biotechnology) Sem - III : WINTER :- 2021**  
**SUBJECT: RESEARCH METHODOLOGY**

**Day : Friday**  
**Date 4/2/2022**

**W-19761-2021**

**Time : 10:00 AM-11:30 AM**  
**Max. Marks: 30**

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**N.B.:**

- 1) All questions are **COMPULSORY**.
  - 2) Figures to the right indicate **FULL** marks.
  - 2) Answer to both the sections should be written in **SAME** answer book.
  - 3) Draw neat and labelled diagrams **WHEREVER** necessary.
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**SECTION-I**

**Q.1** Answer **ANY FIVE** of the following: **(05)**

- a) Define “null hypothesis”.
- b) What is “quantitative type of data”?
- c) What is the goal of research?
- d) What is “literature survey” in research?
- e) What are the measures of central tendency?
- f) What is a scientific paper?

**Q.2** Answer **ANY TWO** of the following **(10)**

- a) What is the need for doing research?
- b) What is sample? What are the characteristics of a sample?
- c) Explain the different ways of graphical representation of data.

**SECTION-II**

**Q.3** Answer **ANY FIVE** of the following: **(05)**

- a) What is “type I error”?
- b) What is the “level of significance”?
- c) What is the meaning of “bibliography”?
- d) What is the purpose of materials and methods?
- e) What is “median”?
- f) What is the meaning of “ethics”?

**Q.4** Answer **ANY TWO** of the following **(10)**

- a) What are the functions and responsibility of ethics committee in research?
- b) Explain the parametric and non-parametric tests?
- c) Explain in detail the distinguishing features of book review, book and book chapter.

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