

Roll.No.

25PBSCT3009

SHRIMATHI DEVKUNVAR NANALAL BHATT VAISHNAV COLLEGE FOR WOMEN
(AUTONOMOUS)

(Affiliated to the University of Madras and Re-accredited with 'A+' Grade by NAAC)
Chromepet, Chennai - 600 044.

M.Sc.Biostatistics - END SEMESTER EXAMINATIONS - NOVEMBER 2025
SEMESTER - III

25PBSCT3009 - Research Methodology

Total Duration : 2 Hrs. 30 Mins.

Total Marks : 60

Section B

Answer any **SIX** questions ($6 \times 5 = 30$ Marks)

1. Explain the objectives and significance of research with suitable examples.
2. Describe the characteristics of good research and its relation to scientific thinking.
3. Define a research problem. Discuss the criteria for selecting a good research problem.
4. Differentiate between exploratory, descriptive, and experimental research designs with examples.
5. Discuss the types of sampling methods and explain any two non-probability sampling techniques.
6. Explain the importance of validity and reliability in questionnaire construction.
7. Discuss the ethical issues in research and the role of Ethical Committees and ICMR guidelines.
8. Illustrate the structure and essential components of a research report as per reporting standards.

Section C

I - Answer any **TWO** questions ($2 \times 10 = 20$ Marks)

9. Describe the steps in the research process from problem identification to report writing.
10. Explain the process of formulating research objectives and hypotheses. Distinguish between null and alternative hypotheses.
11. Evaluate the role of literature review and explain how PubMed and reference tools assist in research.
12. Discuss the importance of data processing and ethical principles in the interpretation of findings.

Contd...

II - Compulsory question (1 × 10 = 10 Marks)

13. Critically assess the guidelines for reporting research such as STROBE, CONSORT, and PRISMA, and explain the use of plagiarism detection tools like Turnitin.
