

# **2019 Scheme**

**QP CODE: 321332**

**Reg. No:.....**

**Third Semester M. Pharm Degree Regular/Supplementary Examinations  
May 2025**

**Paper I: Research Methodology & Biostatistics (MRM 301T)**

**(Common for all branches)**

**Time: 3 Hours**

**Total Marks: 75**

- *Answer all questions to the point neatly and legibly* • *Do not leave any blank pages between answers* • *Indicate the question number correctly for the answer in the margin space*
- *Answer all parts of a single question together* • *Leave sufficient space between answers*
- *Draw table/diagrams/flow charts wherever necessary*

**Essays**

**(3x10=30)**

1. Explain the process of literature review in research; add a note on various information sources for literature review.
2. Explain ANOVA and Student t-test
3. Explain on anaesthesia in laboratory animals.

**Short Notes**

**(9x5=45)**

4. CPCSEA guideline for personal hygiene and transport of animals.
5. Write in brief about ethics committees, cultural concerns and truth telling in medical research.
6. Write the methodology of Wilcoxon signed rank test with suitable example.
7. Explain P-value and its interpretation.
8. Define sample size and explain the importance of sample size.
9. Explain plagiarism and the ways to minimize it.
10. What is copyright form and its significance.
11. Mention the different types of reference citation with examples
12. Explain the types of data collection techniques.

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