

**QP Code: 821006**

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

**Eighth Semester B. Pharm Degree Regular/Supplementary  
Examinations March 2025  
Biostatistics and Research Methodology  
(2017 Scheme)**

**Time: 3 Hours**

**Max. 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 diagrams wherever necessary*

**Essays**

**(2x10=20)**

1. Describe about the case-control and observational studies with suitable examples
2. a) Explain about Ethics in research and the role of Institutional Review Boards  
b) Research methods and Research methodology (5+5)

**Short Notes**

**(7x5=35)**

3. Discuss the advantages of computerized literature retrieval
4. What are measures used for central tendency and write its equations and terms
5. Paired and unpaired t test
6. Null and Alternative hypothesis
7. Write about the standard measures used in epidemiological studies.
8. Research publication
9. Data coding and tabulation

**Answer Briefly**

**(10x2=20)**

10. Define sample size
11. What is regression
12. Enumerate the limitations of Primary data collection
13. Describe type I and type II errors
14. How can we avoid bias in research
15. Give examples for nonparametric tests
16. Write the disadvantages of Epidemiological studies
17. Draw a typical histogram and give one advantage of histogram
18. Give examples for confounding variables in research
19. What are the differences between quantitative and qualitative variables

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