

FACULTY OF PHARMACY

**M. Pharmacy (Common to All) III-Semester (PCI) (Main) Examination,
February 2019**

Subject : Research Methodology and Biostatistics

Time: 3 Hrs

Max. Marks: 75

Note: Answer any Five Questions. All Questions Carry Equal Marks.

1. Explain the strategies to eliminate errors/bias and controls. (15)
2. a) What are meant by nonparametric tests? Distinguish between parametric and non-parametric tests.
b) Explain the factors influencing the sample size. (10+5)
3. a) What is the importance of communication systems in research and general life?
b) Differentiate the terms 'autonomy' and 'beneficence'. (10+5)
4. a) Describe the methods of surveillance, diagnosis, treatment and control of diseases in laboratory animals. (10)
b) What are the requirements for transport of laboratory animals by road, rail and air? (5)
5. a) Explain the steps involved in the ethical procedure for the international research.
b) List the principles of declaration of Helsinki (10+5)
6. a) Describe various statistical tests of significance relevant to the drug testing.
b) Define the term 'anesthetic' and its purpose. Explain the commonly used anesthetics in laboratory animals. (10+5)
7. Describe different types of 'study designs' with principles and advantages. (15)
8. a) Describe the problems in treatment of family members, during treatment by a known physician.
b) Describe the principles of medical research combined with medical care. (10+5)
