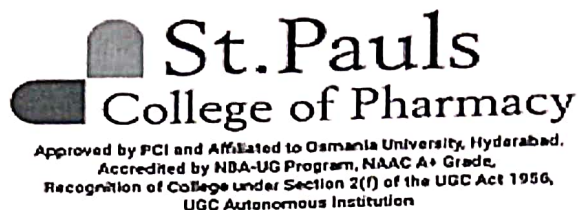


Code. No.M122431CP

**M.Pharmacy (Common for all) III Semester (PCI) (Main) Examination Dec/Jan 2024-25****Subject: Research Methodology & Biostatistics & MRM301T****Time: 3 Hours****Max.Marks: 75****PART- A****Note: Answer any FIVE questions. All questions carry equal marks.**

Q.No.	Question	Marks	CO	BL
1	a) Describe in detail about cross-over design.	7	4	2
	b) Write a brief note on placebo and blinding techniques.	8	9	3
2	a) Explain the different types on non-parametric tests.	8	6	2
	b) Discuss in detail about regression analysis.	7	7	2
3	a) Illustrate the concepts of truth telling, conflicts of interest and cultural concerns in medical research.	8	1	3
	b) Describe the history of medical research and values in medical ethics.	7	1	2
4	a) Brief out the CPCSEA guidelines for animal husbandry, record keeping and SOP's.	8	2	4
	b) Describe about the physical facilities for laboratory animals.	7	2	2
5	a) Discuss the basic principles of medical research and its significance.	7	1	2
	b) Enumerate the principles of Declaration of Helsinki.	8	3	5
6	a) What is literature review and discuss the sources & types of literature review.	7	9	2
	b) Discuss the different types of randomizations in research.	8	8	2
7	a) Write a note on null hypothesis and P values.	7	6	3
	b) Briefly describe the statistical tests of significance.	8	4	2
8	a) Discuss the commonly used anesthetics for laboratory animals and its guidelines as per CPCSEA.	8	2	2
	b) Describe double effects and autonomy.	7	1	2

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