

THE TAMIL NADU Dr. M.G.R. MEDICAL UNIVERSITY

[BPHARM0422]

**APRIL 2022
(SEPTEMBER 2021 SESSION)**

Sub. Code: 2077

**B.PHARMACY DEGREE COURSE (SEMESTER EXAMINATIONS)
PCI Regulation 2017 SEMESTER VIII
PAPER I – BIOSTATISTICS AND RESEARCH METHODOLOGY
Q.P. Code: 562077**

Time: Three hours

Maximum: 75 Marks

I. Elaborate on: Answer any TWO questions. (2 x 10 = 20)

1. Discuss the protocol for an experimental study design.
2. Describe the different measures of central tendency.
3. How is QbD based product development better? Explain the steps involved in it.

II. Write notes on: Answer any SEVEN questions. (7 x 5 = 35)

1. Explain correlation, types of correlation and its applications.
2. Discuss different methods of sampling.
3. Explain null hypothesis, type I and type II errors.
4. Explain types of observational study designs.
5. Explain with examples- Histogram, Pie chart.
6. Discuss the applications of SPSS and MINITAB in data analysis.
7. Explain the concept of Central Composite Design.
8. Classify and explain different types of t- tests.
9. Explain ANOVA and its applications.

III. Short answers on: Answer ALL questions. (10 x 2 = 20)

1. Report writing in research study.
2. Confidence interval.
3. Chi square test.
4. Probability.
5. Standard error of mean.
6. 2^2 and 2^3 designs.
7. Applications of nonparametric tests.
8. Degrees of freedom.
9. Differentiate SD and SEM.
10. Define scatter plots.
