

**VINAYAKA MISSION'S RESEARCH FOUNDATION  
(Deemed to be University) , SALEM**

**B.PHARM. DEGREE EXAMINATION – October 2021  
Eighth Semester**

**BIostatistics AND RESEARCH METHODOLOGY**

Time : Three hours

Maximum: 75 marks

I. Write essays on any **TWO** questions: (2 x 10 = 20)

1. Explain in detail frequency distribution with examples.
2. Explain in detail student t test with examples.
3. Explain in detail hypothesis testing with examples.

II. Write short answers on any **SEVEN** questions: (7 x 5 = 35)

4. Regression analysis.
5. Chi – square test.
6. Wilcoxon Rank Sum Test.
7. Mann – Whitney U test.
8. Sample size calculation.
9. Prospective study.
10. Factorial design.
11. Kruskal-Wallis test.
12. Errors and types.

III. Write short notes on : (10 x 2 = 20)

13. Standard deviation.
14. Randomization.
15. Beta error.
16. ANOVA.
17. Sampling methods.
18. Variants.
19. SPSS.
20. P Value.
21. Standard error mean.
22. Confidence interval.