B.Sc. DEGREE EXAMINATION, APRIL 2018.

II YEAR IV SEMESTER

Allied - Paper IV - STATISTICAL METHODS AND ITS APPLICATIONS - II

Time : 3 Hours Max. Marks : 60

SECTION A – (10 × 1 = 10 marks)

(Q. No. 1-12)Answer any *TEN* questions

1. Define correlation.
2. Give any two properties of regression.
3. Define Standard error.
4. What is a sampling distribution?
5. Give the test statistic for testing the equality of proportions.
6. Distinguish between large and small samples.
7. Define chi-square.
8. Give the uses of F-test.
9. What is meant by ANOVA?
10. Give the advantages of CRD.
11. Give the properties of rank correlation coefficient.
12. What is paired t-test?

SECTION B – (5 × 4 = 20 marks)

(Q. No. 13-19)Answer any *FIVE* questions

1. What is the need for two regression lines?
2. What do you mean by Type I and Type II error?
3. Describe the testing procedure of testing the equality of two means for large samples.
4. Write short notes on contingency table.
5. Explain: (i) Randomization and (ii) Local control.
6. Describe one tail and two tail tests in detail.
7. Explain principles of scientific experiments.

SECTION C – (3 × 10 = 30 marks)

(Q. No. 20-24)Answer any *THREE* questions

1. Explain the types of correlation
2. Describe the following terms: (i) Level of Significance and (ii) critical region with a suitable example.
3. Explain large sample test for a population proportion.
4. Describe chi-square test of goodness of fit.
5. Explain the statistical testing procedure of LSD.