

Code: 2935

APRIL - 2017

M. Sc. Statistics (Sem.-II) Examination

Time: 2.30 Min]

Paper No. 7: Software tools and computing

[Marks: 70

Techniques relevant to Statistics

1. (a) Write a short note on commonly available statistical packages. 7
(b) Describe salient features of SYSTAT. 7

OR

1. (a) Explain computing method to compute Bayes estimate of regression coefficient using SYSTAT. 7
(b) Describe the functions of data view and variable view while creating a data sheet in SYSTAT. 7
2. (a) Write a short note on use of Excel for presentation graphics. 7
(b) Explain computing method to compute least square estimate of regression coefficient using SYSTAT. 7

OR

2. (a) Explain the Least median of square Robust Regression methods in SYSTAT. 7
(b) Explain following Non-parametric tests in SYSTAT. 7
1) Krushkal wallis test.
2) Two sample Kolmogrov-Smirnov test.
3. (a) Write a short note on Graphics in SYSTAT. 7
(b) Explain M Regression in SYSTAT. 7

OR

3. (a) How can you generate random samples from the following distribution. 7
$$f(x) = \frac{1}{\theta} e^{-\frac{x}{\theta}}, \theta > 0, x > 0$$
 using SYSTAT.
(b) Explain analysis of variance technique in SYSTAT 7
4. (a) Explain following Hypothesis testing methods in SYSTAT 7
1) Two sample t-test
2) Paired t-test
(b) Explain Following function/test in Excel 7
1) Z-test
2) F distribution
3) Chi-square test

OR

4. (a) Explain Following function/test in Excel 7
1) Poisson test
2) Karl pearson correlation coefficient
3) Normal distribution
(b) Explain following Hypothesis testing methods in SYSTAT 7
1) Two sample Z-test.
2) For two means comparison
5. (a) Explain the Rank Robust Regression methods in SYSTAT 7

- (b) Explain following Non-parametric tests in SYSTAT. 7
- 1) Wilcoxon sign rank test
 - 2) Wald-wolfowitz test Run test

OR

5. (a) Explain the LTS Robust Regression methods in SYSTAT 7
- (b) Discuss the following computing methods in SYSTAT: 7
- K-means Cluster Analysis.