# GOVERNMENT COLLEGE (AUTONOMOUS), RAJAHMUNDRY

(Accredited by NAAC "A+" Grade)

#### **DEPARTMENT OF COMPUTER SCIENCE & APPLICATIONS**

II B.Sc. (Hons)-AI: Semester-III
Inferential Statistics
MODEL QUESTION PAPER (W.E.F 2023-2024)

Time: 2 ½ Hrs. Max Marks: 50 M

# **SECTION - I**

# **Answer any FIVE Questions**

5 X 3 = 15M

- 1. Explain about the consistency.
- 2. Write a short note on confidence coefficient.
- 3. Write a short note on a critical region.
- 4. Single mean with example.
- 5. Explain about paired t-test..
- 6. Explain Student's t-distribution.
- 7. Properties of F-distribution.
- 8. Write a short note on the Sign test..

### **SECTION - II**

### **Answer following question**

5 X 7 = 35M

- 9. Explain about Maximum Likelihood estimator (MLE).
  - (OR)
- 10. Explain about the Criteria of a good estimator.
- 11. Explain about Tests of significance of large samples.

(OR)

- 12. Explain about Neyman Pearson lemma (WITHOUT PROOF) and its applications.
- 13. Explain applications of Snedecor's F Distribution

(OR)

- 14. Explain Chi-square distribution-.
- 15. Explain ANOVA two-way classification.

(OR)

- 16. Explain about the F-test for equality of two population variances.
- 17. Explain about the Wilcoxon-signed rank test.

(OR)

18. Explain about about the Kruskal Wallis test