M.Sc. DEGREE EXAMINATION,APRIL 2020
I Year II Semester
Categorical Data Analysis

Time : 3 Hours **Max.marks :75**

Section A $(10 \times 2 = 20)$ Marks

Answer any **TEN** questions

1. What is binomial sampling?
2. Define relative risk.
3. Discuss about Marginal odds ratio.
4. What is homogeneous association?
5. What is meant by logistic regression diagnostics?
6. Define deviance statistic.
7. Discuss Wald test.
8. State the proportional odds model.
9. List out the uses of McNemar's test.
10. Define Kappa measure.
11. Define sensitivity and specificity.
12. Define yate's correction for continuity.

Section B $(5 \times 5 = 25)$ Marks

Answer any **FIVE** questions

13. Explain about the Nominal and Ordinal measures of Association.
14. Discuss about the Fisher Exact test for 2 x 2 tables.
15. Describe the binomial GLM for 2*2 contingency tables.
16. Explain Logit models for multi-way contingency tables.
17. Explain about kappa measures of agreement.
18. Explain conditional and marginal odds ratios with an example.
19. Write a short note on Bradley - Terry model for paired preferences.

Section C $(3 \times 10 = 30)$ Marks

Answer any **THREE** questions

20. Discuss about the Interval estimation for difference of proportion, odds and log odds ratio.
21. Describe about the Cochran - Mantel - Haenszel method.
22. Write a short note on LR test and Score test.
23. Describe about the Logit models for Nominal and Ordinal responses.
24. Discuss about the Poisson log linear model for count data and goodness of fit test.

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