Rawalpindi Women University

Department of Statistics

Sample Paper for M.Phil. Statistics Admission

Note: Please attempt all questions.

(i) If population is perfectly homogenous, then what size of sample would you prefer?

(a) A large Sample (b) A small sample (c) A single unit (d) None of the above

(ii) If units are selected in a sample from N population units, the sampling fraction is:

(a) $(1/n)$ (b) $(1/N)$ (c) (N/n) (d) (N/n)

(iii) A test which maximized the power of the test for fixed α is known as:

(a) Optimum test (b) Randomized test (c) Bayes test (d) Likelihood ratio test

(iv) In a Multinomial distribution with 4 classes, the degrees of freedom for Chi-Square is:

(a) 3 (b) 4 (c) 2 (d) 1

(v) Significance of partial regression coefficients can simultaneously be tested by:

(a) T-test (b) Z-test (c) Chi-Square test (d) F-test

(vi) Which of the following relation is correct:

(a) $r_{12.34} = r_{13.24}$ (b) $r_{12.3} = r_{21.3}$ (c) $r_{13} = r_{23}$ (d) $r_{12.3} = r_{13.2}$

(vii) The simplest completely randomized groups design is a:

(a) Single group design (b) Single variable design

(c) Two group design (d) Two variables design

(viii) The analysis of variance procedure compares:

(a) Several different sample means (b) Two different estimate of variance

(c) Several different population variances (d) Several different populations variances

(ix) A variable equals the sum of squared of independent standard normal variates is called:

(a) Binomial variate (b) Standard variate (c) Chi-squared variate (d) None

(x) On a single draw from a deck of playing cards, the probability of selecting a heart card and a black card is:

(a) 1/2 (b) 1/4 (c) Zero (d) 1/8