

Quaid-i-Azam 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) $1/8$