

TELANGANA UNIVERSITY
S.S.R. DEGREE COLLEGE, NIZAMABAD (C.C:5029)
VI SEMESTER INTERNAL ASSESSMENT I EXAMINATIONS
STATISTICS (APPLIED STATISTICS) QUESTION BANK

Multiple choice questions.

1. Concept of ANOVA was introduced by _____ (a)
 a) R.A. Fisher b) Dan trig c) William d) None
2. ANOVA one-way, M.S.S.t= _____ (b)
 a) $\frac{St^2}{N-k}$ b) $\frac{St^2}{k-1}$ c) $\frac{St^2}{h-1}$ d) None of these
3. A NOVA one-way, T.S.S = _____ (c)
 a) MSST+MSSE b) MSST+SSE c) SST+SSE d) None of these
4. In two-way ANOVA, M.S.S.V= _____ (d)
 a) $\frac{St^2}{k-1}$ b) $\frac{Sv^2}{k-1}$ c) $\frac{St^2}{h-1}$ d) $\frac{Sv^2}{h-1}$
5. In two-way ANOVA, Degrees of freedom for due to error _____ (a)
 a) (K-1)(h-1) b) (k-1) c) (h-1) d) None
6. Correction factor= _____ (b)
 a) G/n b) G²/N c) G²/n d) None of these
7. In two way ANOVA, T.S.S = _____ (d)
 a) $\frac{1}{n} \sum_{i=1}^K Ti^2$ -C.F b) $\frac{1}{h} \sum_{i=1}^K Ti^2$ c) $\sum_{i=1}^K Ti^2$ d) None of these
8. Two-way ANOVA, E.S.S. = _____ (d)
 a) T.S.S-T.S.S.-V.S.S b) T.S.S-T.S.S c) T.S.S-V.S.S d) None of these
9. Two way ANOVA degrees of freedom for T.S.S (a)
 a) N-1 b) K-1 c) h-1 d) None of these
10. F-ratio for treatments in twoway ANOVA F call= _____ (b)
 a) $\frac{St^2}{S\epsilon^2}$ b) $\frac{S\epsilon^2}{S2^2}$ c) $\frac{Sv^2}{S\epsilon^2}$ d) None of these
11. How many causes of variations in ANOVA (a)
 a) 2 b) 3 c) 4 d) 5
12. Various effects are _____ in nature (b)
 a) Random b) Additive c) Normal d) None
13. Raw sum of squares R.S.S = (b)
 a) $\sum y_{ij}^2$ b) $\sum \sum y_{ij}^2$ c) y_{ij} d) None
14. In ANOVA one way, E (S_T^2) = _____ (c)
 a) σ^2 b) σ_b^2 c) σ_e^2 d) None
15. T.S.S = _____ (a)
 a) RSS-C.F b) RSS c) C.F d) None
16. In two way ANOVA, $\sum_{i=1}^K \alpha_i =$ _____ (a)
 a) 0 b) 1 c) 2 d) None
17. If two way ANOVA, $\sum_{j=1}^h \beta_j =$ _____ (a)
 a) 0 b) 1 c) 2 d) None
18. Two way ANOVA, MSSV or $S_v^2 =$ _____ (b)
 a) SSV b) SSV/h-1 c) h-1 d) None
19. Estimation of parameter in ANOVA, IS = _____ (c)
 a) \bar{Y} b) \bar{y} c) $\bar{y}_{..}$ d) None

8) In two way ANOVA, $\bar{y}_{.i} = \underline{\hspace{2cm}}$?

$$\text{A: } \bar{y}_{.i} = \frac{1}{h} \sum_{j=1}^h y_{ij}$$

9) In two way ANOVA, $\bar{y}_{.j} = \underline{\hspace{2cm}}$?

$$\text{A: } \bar{y}_{.j} = \frac{1}{k} \sum_{i=1}^k y_{ij}$$

10) Efficiency of RBD over CRD ?

$$\text{A: } E = \frac{h(k-1)S_{\varepsilon}^2 + (h-1)S_B^2}{(hk-1)S_{\varepsilon}^2}$$