

**PSYCHOMETRIC METHODS & STATISTICS**

Time: Three Hours

Maximum: 75 Marks

Answer ALL questions  
ALL questions carry EQUAL marks (5 x 15 = 75)

- 1 a What is psychometric methods and its properties?  
b Explain the need of statistics in psychometric.  
OR  
c Write a brief note various scalling technique used in psychometric.  
d Describe Weber and Feeher's law and its applications.
- 2 a Distinguish between null hypothesis and alternative hypothesis.  
b Write a brief note on one-tailed and two-tailed test.  
OR  
c Use the Kruskal – Wallis test at 5% level of significance to test the null hypothesis that professional bowler performs equally well with the four bowling balls given the following results :

Bowling results in five games

With Ball No. A :	271	282	257	248	262
With Ball No. B :	252	275	302	268	276
With Ball No. C :	260	255	239	246	266
With Ball No. D :	279	242	297	270	258

- d Write a brief note on Mann – Whitney U test.
- 3 a Write a brief note on important technqieus in multivariate analysis.  
b Explain the terms about  
(i) Multiple discriminant Analysis (ii) Canonical correlation Analysis  
OR  
c Write a short note on  
(i) Multidimensional scalling (iii) Profile Analysis.  
d Write a brief note on MANOVA and MANCOVA.
- 4 a Write a brief essay on 'Factor Analysis' particularly pointing out its merits and limitations.  
b Write a short note on 'rotation' in content of factor analysis.  
OR  
c Explain orthogonal and VARIMAX oblique.  
d Write a short note on reflection in factor analysis.
- 5 a Explain types of data with suitable example. State which one of the data is best?  
b Write a brief note on data organization.  
OR  
c Distinguish between application of inferential and descriptive statistics.  
d How to analysis the data through EXCEL and SPSS? Give an suitable examples.