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PSG COLLEGE OF ARTS & SCIENCE

(AUTONOMOUS)

MSc DEGREE EXAMINATION DECEMBER 2018

(Third Semester)

Branch - APPLIED PSYCHOLOGY

PSYCHOMETRIC METHODS & STATISTICS

Time: Three Hours

Maximum: 75 Marks

Answer ALL questions ALL questions carry EQUAL marks $(5 \times 15 = 75)$

- 1 a Define Psychometry.
 - b Explain the importance of statistics in Psychology.

OR

- c Discuss the method of Minimal change.
- d Explain Weber's and Fechner's law along with its applications.
- 2 a What are type I and type II errors in testing of hypothesis?
 - b Eight individuals are chosen at random from a population and their weights in Kg are 63, 62, 65, 68, 67, 69, 70, 72. Can the sample come from the population with mean weight 69 Kg?

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- c Write briefly about Non-parametric tests.
- d In a survey of 200 boys of which 75 were intelligent, 40 had educated fathers, while 85 of an unintelligent boys had uneducated fathers. Do these data support the hypothesis that educated fathers have intelligent boys?
- 3 a What do you mean by profile analysis?
 - b Discuss in detail about hierarchical and non-hierarchical methods of cluster analysis.

OR

- c Explain briefly about the concept of path analysis.
- d Explain the estimation procedure of regression coefficients of multiple regression analysis.
- 4 a Write a note about specificity in factor analysis.
 - b Explain orthogonal and varimax rotation in factor analysis.

OR

- c Describe briefly about origin of factor analysis.
- d Explain the procedure of factor analysis.
- 5 a Write a note about organization of data.,
 - b Explain the procedure of doing descriptive statistical analysis using Excel.