

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)
MSc DEGREE EXAMINATION DECEMBER 2025
(Third Semester)

Branch - APPLIED PSYCHOLOGY

PSYCHOMETRIC METHODS & STATISTICS

Time: Three Hours

Maximum: 75 Marks

SECTION-A (10 Marks)

Answer ALL questions

ALL questions carry EQUAL marks

(10 × 1 = 10)

Question No.	Question	K Level	CO
1	What is another term for difference threshold? a. absolute threshold b. difference adaptation c. just noticeable difference d. sensory differentiation	K1	CO1
2	People are more likely to notice a 50 cent increase in the price of a candy bar than they are to notice a 50 cent increase in the price of an iPad. This illustrates what? a. the absolute threshold b. Weber's law c. signal detection d. opponent processes	K2	
3	What is a statistic? a. a sample characteristic b. a population characteristic c. unknown d. normally distributed	K1	CO2
4	Find from below option what do observational studies allow? a. population inference b. causal inference c. both types of inference d. neither type of inference	K2	
5	What is the scale applied in statistics, which imparts a difference of magnitude and proportions, is considered as? a. Exponential scale b. Goodness scale c. Ratio scale d. Satisfactory scale	K1	CO3
6	Which one of the following variables is not categorical? a. Age of a person. b. Gender of a person: male or female. c. Choice on a test item: true or false. d. Marital status of a person (single, married, divorced, other)	K2	
7	Which value appears very frequently in a data? is called: a. Mean b. Median c. Mode d. Central tendency	K1	CO4
8	A chi-square test involves a set of counts called "expected counts" - What are the expected counts? a. Hypothetical counts that would occur if the alternative hypothesis were true. b. Hypothetical counts that would occur if the null hypothesis were true. c. The actual counts that did occur in the observed data. d. The long-run counts that would be expected if the observed counts are representative.	K2	
9	Which of the following is not true for the construction of achievement tests? a. Evaluation b. Objectivity c. Validity d. Reliability	K1	CO5
10	Choose from below the main characteristics of standardized tests are that they are free from. a. Interpretive errors b. Personal errors c. Variable errors d. Constant errors	K2	

Cont...

SECTION - B (35 Marks)

Answer ALL questions

ALL questions carry EQUAL Marks (5 × 7 = 35)

Question No.	Question	K Level	CO
11.a.	Identify the method of average error. (OR)	K3	CO1
11.b.	Organize the concept of thresholds.		
12.a.	Identify the nature of psychological data. (OR)	K3	CO2
12.b.	Distinguish in brief the variables.		
13.a.	Explain measures of variability. (OR)	K4	CO3
13.b.	Analyse degrees of freedom.		
14.a.	Elaborate 1 tailed & 2 tailed tests. (OR)	K5	CO4
14.b.	Discuss the nature of ANOVA.		
15.a.	List methods of validity. (OR)	K4	CO5
15.b.	Distinguish - Nominal, ordinal, interval and ratio scales.		

SECTION -C (30 Marks)

Answer ANY THREE questions

ALL questions carry EQUAL Marks (3 × 10 = 30)

Question No.	Question	K Level	CO
16	Distinguish Weber's and Fechner's law.	K4	CO1
17	Appraise the nature of psychological research.	K5	CO2
18	Analyze the importance of testing the normality of the data.	K4	CO3
19	Discuss parametric statistics.	K4	CO4
20	Compile steps in item analysis.	K5	CO5