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22SOU309N

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

BA DEGREE EXAMINATION DECEMBER 2025
(Third Semester)

Branch – **SOCIOLOGY**

SOCIAL STATISTICS – I WITH COMPUTER APPLICATIONS

Time: Three Hours Maximum: 75 Marks

SECTION-A (10 Marks)
Answer **ALL** questions
ALL questions carry **EQUAL** marks (10 × 1 = 10)

Module No.	Question No.	Question	K Level	CO
1	1	Which of the following is NOT a characteristic of Statistics? a) Numerical data b) Systematic collection c) Random guessing d) Analysis and interpretation	K1	CO1
	2	Identify type of data that is obtained directly from the source without any modification a) Secondary data b) Sample data c) Processed data d) Primary data	K2	CO1
2	3	Recall the name of data set that involves data in rows and columns a) Simple tabulation b) Diagrammatic tabulation c) Frequency polygon d) Graphical tabulation	K1	CO2
	4	Diagrammatic representation of statistical data means using: a) Words only b) Tables only c) Pictures and diagrams d) Numbers only	K1	CO2
3	5	Relative measures of dispersion are useful because they: a) Are not standardized b) Allow comparison between different data sets c) Ignore data variability d) Measure only range	K1	CO3
	6	The Harmonic mean is mainly used to calculate average of: a) Prices b) Frequencies c) Currency values d) Rates and ratios	K2	CO3
4	7	Pearson's coefficient of skewness helps to find: a) Correlation between variables b) Degree of skewness c) Regression coefficients d) Mean value	K1	CO4
	8	Recall the purpose of Regression lines. a) Measure of skewness b) Rank order of data c) Predictive relationship between variables d) Mean of dataset	K2	CO4
5	9	Identify the Excel tool is used to perform regression analysis? a) Data Analysis Toolpak b) Solver c) Conditional Formatting d) Pivot Table	K1	CO5
	10	Mention the function used to calculate the standard deviation of a dataset in Excel. a) STDDEV() b) SD ( ) c) STDEV.P( ) d) VAR ( )	K2	CO5

Cont...

SECTION - B (35 Marks)

Answer **ALL** questions

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

Module No.	Question No.	Question	K Level	CO
1	11.a.	Discuss the characteristics and limitations of Statistics. How do these features affect its application in social research?	K2	CO1
		(OR)		
	11.b.	Describe the importance of a questionnaire in collecting statistical data. What are the key points to be considered while preparing a questionnaire?		
2	12.a.	Define frequency distribution. Explain the construction of a grouped frequency distribution with an example.	K3	CO2
		(OR)		
	12.b.	Draw a histogram and frequency polygon from the following data of marks obtained by students:		

Marks	0 – 10	10 – 20	20 – 30	30 – 40	40 - 50
# students	5	8	15	10	7

3	13.a.	What is coefficient of variation? How is it used to compare dispersion between different data sets? Illustrate with an example.	K3	CO3	
		(OR)			
	13.b.	Explain the concept of mean deviation and standard deviation. Calculate the standard deviation for the following data: Values: 10, 12, 15, 18, 20			
4	14.a.	Define correlation. Explain the properties of the correlation coefficient.	K4	CO4	
		(OR)			
	14.b.	Define skewness and explain different types of skewness with the help of diagrams.			
5	15.a.	Discuss the steps to calculate measures of central tendency and dispersion using Excel functions.	K4	CO5	
		(OR)			
	15.b.	How can charts and graphs be created in MS Excel to represent statistical data? Explain the types commonly used in social statistics.			

SECTION -C (30 Marks)

Answer **ANY THREE** questions

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

Module No.	Question No.	Question	K Level	CO
1	16	Explain the detailed steps involved in statistical investigation starting from problem definition to data interpretation. Highlight the importance of each step.	K2	CO1
2	17	Explain the importance of classification in statistics. Identify and describe different bases of classification with suitable examples. Demonstrate how classification simplifies the process of data analysis with a practical illustration."	K3	CO2
3	18	Calculate the mean, median, and mode for the following data set and interpret the results: Data: 12, 15, 18, 20, 22, 25, 28, 30, 35	K3	CO3
4	19	Analyze regression using including the derivation of regression lines. Calculate the regression coefficients for the data:	K4	CO4

X	5	7	8	10	12
Y	15	17	20	22	24

Discuss how these regression lines help in prediction.

5	20	Analyze the role of Microsoft Excel in performing statistical analysis for social sciences. Discuss the steps involved in preparing and organizing data in Excel for accurate analysis.	K4	CO5	

Z-Z-Z END