PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

BA DEGREE EXAMINATION DECEMBER 2022
(Third Semester)

Branch – **SOCIOLOGY**

SOCIAL STATISTICS - I WITH COMPUTER APPLICATION

Time: Three Hours

Maximum: 50 Marks

SECTION-A (5 Marks)
Answer ALL questions
ALL questions carry EQUAL marks   (5 x 1 = 5)

1 A list of questions pertaining to the problem of investigation in which the responses are filled by the enumerator is called------------
   (i)   Question paper
   (ii) Questionnaire
   (iii) Schedule
   (iv) Response Sheet

2 The graphical tool used to locate the first and third quartiles is ----------
   (i) Frequency polygon
   (ii) Histogram
   (iii) More than Ogive
   (iv) Less then Ogive

3 The measure which is called as root mean square deviation is -------------
   (i) Mean deviation
   (ii) Quartile deviation
   (iii)Standard deviation
   (iv) Coefficient of variation

4 If all the points on a scatter diagram fall on a straight line which extends from the lower left corner to the upper right corner, the correlation is -----------
   (i) Perfectly negative
   (ii) Perfectly Positive
   (iii) Low positive
   (iv) Low Negative

5 Which of the following returns the median value?
   (i)   QUARTILE(A:A,1)
   (ii) QUARTILE(A:A,4)
   (iii) QUARTILE(A:A,3)
   (iv) QUARTILE(A:A,2)

SECTION - B (15 Marks)
Answer ALL Questions
ALL Questions Carry EQUAL Marks   (5 x 3 = 15)

6 a Describe any two applications of statistical tools in sociology,
                                OR
   b Bring out the differences between Primary data and Secondary data.

7 a Form a continuous frequency distribution with exclusive class intervals for the following data.

125	108	112	126	110	132	136	130	149	155
120	130	136	138	125	111	119	125	140	148
147	137	145	150	142	135	137	132	165	154

                                OR

   b Sketch the parts of a table with a blank table.

8 a Calculate the geometric mean and Harmonic mean for the following data.

| X | 20 | 21 | 22 | 23 | 24 | 25 |
| f | 4 | 2 | 7 | 1 | 3 | 1 |

                                OR

   b Calculate mean deviation from mode and its coefficient.

| X | 32 | 51 | 23 | 46 | 20 | 78 | 57 | 56 | 57 | 30 |

9 a Explain the types of correlation through scatter diagram.
                                OR
   b Bring out the differences between correlation and regression.

Cont...

10 a   Explain the method of finding the descriptive statistics of a variable in MS-Excel.

OR

b   Explain the steps to make the cells of a column as values with one decimal point.

SECTION -C (30 Marks)
Answer ALL questions
ALL questions carry EQUAL Marks   (5 x 6 = 30)

11 a   Discuss the rules to be followed while constructing a questionnaire.

OR

b   Summarize the merits and demerits of any three methods of collecting primary data.

12 a   Locate the median value using Ogive curves for the following data.

C.I	0-20	20-40	40-60	60-80	80-100
f	10	40	60	40	10

OR

b   Represent the following data in a suitable diagram.

Zone	A	B	C	D
Female Population(in '000)	16	20	10	20
Male Population(in '000)	18	25	10	25

13 a   Examine the variation using the quartile deviation for the following data.

Wages	100	200	400	500	600
No.of weeks	5	8	21	12	6

OR

b   The following data gives the Prices of Gold in Cities A and B. Identify the city in which the price is more stable.

Day	Mon	Tue	Wed	Thu	Fri	Sat
City A	498	500	505	504	502	509
City B	500	505	502	498	496	505

14 a   Examine the nature of skewness using Bowley's coefficient of skewness.

X	0	1	2	3	4	5	6
f	7	0	16	25	18	11	8

OR

b   Analyze the nature of correlation between ranks using the rank correlation coefficient.

X	15	20	28	12	40	60	20	80
Y	40	30	50	30	20	10	30	60

15 a   Discuss the steps to compute mode with excel with special refrence to the following cases.
i. Give the syntax for computing mode in Excel.
ii. When the data has no mode, how Excel shows the result?
iii. What syntax is used to extract multiple mode values?

OR

b   Discuss the steps to compute quartile deviation in Excel

Z-Z-Z   END