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SEAT No.:

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F.Y. B.Sc. (Computer Science)
STATISTICS
CSST-111: Descriptive Statistics - I
(2019 Pattern) (Semester - I) (Paper - I)

[Time: 2 Hours]

[Max. Marks: 35]

Instructions to the candidates:

- 1) *All questions are compulsory.*
- 2) *Figures to the right indicate full marks.*
- 3) *Use of calculator and statistical tables is allowed.*
- 4) *Symbols and abbreviations have their usual meaning.*

Q1) Choose the most appropriate alternative for each of the following: [4]

- i) In inclusive type of classification....
 - a) lower limits are excluded
 - b) upper limits are excluded
 - c) both the limits are excluded
 - d) upper limits are included
- ii) The number of quartiles are ...
 - a) 4
 - b) 10
 - c) 100
 - d) 3
- iii) Median can be obtained graphically by using
 - a) ogive curves
 - b) histogram
 - c) Pie-diagram
 - d) Bar diagram
- iv) The coefficient of association for two attributes lies between...
 - a) $-\infty$ and ∞
 - b) -1 and 1
 - c) 0 and 1
 - d) -1 and 0

P.T.O.

Q2) Attempt any FIVE of the following: [5 × 2 = 10]

- i) Explain each of the following:
 - a) Open end classes
 - b) class mark
- ii) Define more than type cumulative frequency.
- iii) Define exclusive type of classification. Convert the following class intervals to equivalent exclusive class intervals.
20-29
30-39
40-49
- iv) The mean of 20 observation is 50 and coefficient of variation is 30%. Find the variance
- v) Express the third and fourth central moment in terms of raw moments.
- vi) If $n=10$ and $\frac{\sum(x-5)}{5} = 18$ find the mean of x .
- vii) 10 students appeared for an examination in which 40 marks are required for passing out of 100. The marks of the students who passed in the examination are 65, 52, 73, 90, 45, 49 and 66. Obtain the median marks.
- viii) Define: i) Ultimate class frequency ii) Positive classes.

Q3) Attempt any TWO of the following: [2 × 4 = 8]

- a) Write short note on stem and leaf chart.
- b) Define median for a grouped frequency distribution. Also state its merits.
- c) Information regarding daily salaries of two companies A and B is given below:

	Company A	Company B
No. of workers	600	400
Mean salary (Rs.)	180	200
SD of salary (Rs.)	9	10

Which company has less variation in salaries?

Q4) Attempt any TWO of the following: [2 × 4 = 8]

- a) Write short note on histogram.
- b) Write a note on kurtosis.
- c) Average marks of 30 candidates were 40. Later on it was found that a score of 47 was misread as 74. Find the correct average.

P.T.O.

Q5) Attempt any ONE of the following:

[1 × 5 = 5]

- a) If A and B are independent attributes then show that the attributes:
- α and B are independent
 - A and β are independent.
- b) For a moderately skewed distribution, the mean is 29.6 and the standard deviation is 6.5 and pearson's coefficient of skewness is 0.32. find the mode and the median of the distribution.

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