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SA - 538

Total No. of Pages : 3

B.C.A. (Part - II) (Semester - III) Examination, May - 2019
COMPUTER ORIENTED STATISTICAL METHODS (Paper - 305)
Sub. Code : 63400

Day and Date : Wednesday, 08 - 05 - 2019

Total Marks : 80

Time : 10.30 a.m. to 01.30 p.m.

- Instructions :
- 1) Question no.8 is compulsory.
 - 2) Attempt Any Four questions from 1 to 7.
 - 3) Figures to the right indicate full marks.
 - 4) Use of non-programmable calculator is allowed.
 - 5) Graph paper will be supplied on request.

- Q1) a)** Define Statistics. Explain Scope of statistics. [8]
b) Define mean deviation (M.D) and coefficient of M.D. Obtain M.D. about median & its relative measures of dispersion from the following data. [8]
30, 14, 10, 17, 23, 20, 19, 26, 21, 20, 30

- Q2) a)** Define Population & Sample with example. Explain SRSWR and SRSWOR. [8]
b) Define Standard Deviation (S.D) & Coefficient of Variation (C.V). The first of two samples has 100 items with mean 60 and variance 25. If the whole group has 300 items with mean 62 & Standard deviation 5.86 then calculate mean & variance of other group. [8]

- Q3) a)** Explain any two types of correlation. Find Rank correlation coefficients for the Following data : [8]

X	42	48	42	35	33	35	32
Y	25	28	27	25	29	30	35

- b)** Define Time series and Uses of time series. Calculate 4 yearly moving average method from the following data (Without graph) [8]

Year :	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Sales :	13	15	18	16	18	20	22	20	25	22

P.T.O.

Q4) a) Define Mean and Median. Find mean and median for the following data. [8]

Age (years) :	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100
No. of persons:	16	21	20	28	10	10	3	1	1

b) The given two regression equations $10X+3Y=62$ and $6X+5Y=50$ are X on Y and Y on X respectively. [8]

Find i) Mean values of X and Y

ii) Correlation Coefficient between X and Y

Q5) a) State the empirical relation between Mean, Mode & Median. Use it to estimate Mode of the distribution whose Mean is 42.68 and Median is 58.92. [8]

b) Following data represents the number of students admitted for BCA course in a certain college [8]

Classes :	BCA-I	BCA-II	BCA-III
No. of Students :	70	65	45

Draw a Pie-diagram for the above data.

Q6) a) Define Regression & for the following data, find regression equation of Y on X And estimate the value of Y when $X = 50$ [8]

X	78	36	98	25	75	82	90	62	65	39
Y	84	51	91	60	68	62	86	58	53	47

b) Explain Components of Time Series. [8]

Q7) a) Define absolute & relative measures of dispersion. If Q.D = 25 & its relative measure is 0.65 then find value of first & third quartiles of the data. [8]

b) State merits & demerits of mean, mode & median. [8]

- Q8) a) State properties of Correlation Coefficients. Find Correlation coefficient from the following data. [8]

Price	30	34	35	36	37	38	40	42	43	45
Demand	25	29	30	31	32	33	35	36	37	42

- b) Following data gives number of catches taken by A and B in 5 one day matches. [8]

Catches taken by A : 4 5 4 3 5

Catches taken by B : 1 0 4 2 1

Find who is consistent in taking the catches.



