



SD -73

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Seat No.	
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B.Com. (Part - II) (Semester - III) (New) (CBCS)
Examination, January - 2023
AECC-C5 : BUSINESS STATISTICS (Paper- I) (BSTAT3)
Sub. Code: 73510

Day and Date : Tuesday, 24 - 01 - 2023

Total Marks : 50

Time : 2.30 p.m. to 4.30 p.m.

- Instructions :
- 1) Attempt any five questions.
 - 2) Each question carries 10 marks.
 - 3) Graph papers will be supplied on request.
 - 4) Use of non programmable calculator is allowed.

Q1) Attempt any two from the following:

- a) Draw a pie diagram to represent the following data. [10]

Item	Food	Clothing	Rent	Medicine	Others
Expenditure in Rs.	945	322	525	210	518

- b) State empirical relation between mean, median and mode. Find mean of a distribution whose median is 28 and mode is 34.
- c) State relation between correlation coefficient and two regression coefficients. If $r = -0.6$ and $b_{yx} = -0.3$ then find b_{xy} .

Q2) What are the requirements of a good average? Find mean, median and mode for the following data. [10]

Age in years	10-20	20-30	30-40	40-50	50-60
No. of workers	7	9	15	11	8

Q3) State absolute and relative measures of dispersion. Calculate an appropriate measure of dispersion for the following data. [10]

Age in years	Below20	20-30	30-40	40-50	50 and above
No. of workers	2	10	28	20	12

P.T.O.

- Q4) Define mean and standard deviation. For the following data obtain coefficient of standard deviation. [10]

No. of wickets in a match(X)	0	1	2	3	4	5
No. of matches played (f)	10	12	15	20	7	6

- Q5) State different methods of studying correlation. Calculate Karl Pearson's coefficient correlation between age (in days) X and weight (in lbs) Y of a baby and comment on your result. [10]

Age (X)	0	2	4	5	6
Weight (Y)	3	4	5	4	5

- Q6) Write equations of two lines of regression. You are given $\Sigma X = 400$, $\Sigma Y = 500$, $N = 10$, $\sigma_x = 2.5$, $\sigma_y = 3.5$ and $r = 0.8$. Obtain the regression equation of X on Y, estimate the value of X when $Y = 45$. [10]

- Q7) Attempt any two from the following: [10]

- If $N = 10$, $\Sigma X = 110$, $\Sigma X^2 = 1630$, with usual notations find the coefficient of variation
- Define classification, Histogram and state uses of ogive curve.
- What is sampling? Explain the advantages of sampling method over census method.

