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Kamala College, Kolhapur
(Autonomous)

B.Com (Part -II) (Semester - III)

Examination March/April - 2024

AECC-4: BUSINESS STATISTICS (Paper - I)

Subject Code: AECC-4

Day and Date: Monday, 22/04/2024 **Total Marks: 40**
Time : 11:00 am to 01:00 pm

Instructions:

1. **Attempt any FIVE questions.**
2. **Use of a simple calculator is allowed.**
3. **Figures to the right indicate full marks.**
4. **Each question carries 8 marks.**

Q1) Attempt any two of the following: **[8]**

a) Explain Qualitative and Quantitative classification.

b) The average grade for a section of 250 male students is 61, while the average grade for a section of 350 female students is 58. Find the average grades of all students.

c) For certain data if the difference between upper and lower quartiles is 5.5 and the sum of them is 25 then find QD and Coefficient of QD.

Q2) Define Mean, Median, and Mode. Calculate the same for the following data.
Sale: 12,25,30,15,15,20,13 **[8]**

Q3) What are the requirements of a good measure of dispersion? Calculate the Coefficient of variation and range for the following data. **[8]**

X:	1	2	3	4	5	6	7	8	9
Freq:	8	10	11	16	20	25	15	9	6

Q4) Explain why the sampling technique is better than the census method. What are the different methods of sampling? Explain any one of them in detail. **[8]**

Q5) What is meant by correlation? Distinguish between linear and non-linear correlation. Find Spearman's rank coefficient of correlation **[8]**

Age of Cars	2	4	6	8	10	12
Cost (Rs.) (In'00 Rs.)	16	15	18	17	21	20

Q6) State the relation between regression coefficients and correlation coefficients. Write the equation of two lines of regression. You are given $\sum X = 40$,
$\sum Y = 50, N = 10, \sigma_x^2 = 2.5^2, \sigma_y^2 = 3.5^2 \; and \; r = 0.8$. Obtain the regression equation Y on X, estimate the value of Y when X=4.

Q7) Attempt any two of the following: **[8]**

a) If N=10, $\sum X = 200, \sum X^2 = 4650$, find the value of SD and CV.

b) Explain the concept of regression and give a two real-life example where regression is applicable.

c) Merits and Demerits of mean.

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