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BACHELOR OF COMPUTER APPLICATIONS (B.C.A.)/
SPECIALIZATION IN CYBER SECURITY (CS)/
BACHELOR OF SCIENCE/
BACHELOR OF SCIENCE (CYBER SECURITY)
EXAMINATION : JUNE-2025
SEMESTER - II

Sub: Statistics

(BCA – 240-18/BCA-240-20/BCA23-202/BSC24-202/BCA-CS240-20/BCAC23-202/BSCC24-202)

Date : 04/06/2025	Total Marks : 60	Time: 10.00 am To 12.30 pm
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Instructions:

1. All questions are compulsory unless and otherwise stated.
2. Bold figures to the right of every question are the maximum marks for that question.
3. Candidates are advised to attempt questions in order.
4. Answers written illegibly are likely to be marked zero.
5. Use of scientific calculators, Log tables, Mollier Charts is allowed.
6. Draw neat and labeled diagrams wherever necessary.

Q.1. Solve (Any 4) (8)

1. Find the mean of the first 10 odd integers.
2. Identify the mode for the following data set:
21, 19, 62, 21, 66, 28, 66, 48, 79, 59, 28, 62, 63, 63, 48, 66, 59, 66, 94, 79, 19 94
3. Write the formula for PIN and QIN
4. Define Variance and Standard Deviation
5. Following are the prices of stock market shares of a certain company for last 10 days. Find the range: 123,98,96,120,115,121,117,151,101,99

Q.2. Solve (Any 3) (9)

1. State properties of Correlation coefficient
2. State merits and demerits of Mean
3. For a group of 10 observations on $\sum x = 452$ and $\sum x^2 = 24270$. Find the standard deviation
4. If the difference between the standard deviation and variance of a data is 12, then find the sum of the variance and standard deviation of that data

Q.3. Solve (Any 2) (8)

1. Find the mean deviation from the mean for the following data set.

57, 64, 43, 67, 49, 59, 44, 47, 61, 59
2. Write the steps of how to draw the subdivided bar diagram

3. Draw histogram of the following data:

The time taken (in seconds) by 25 students to solve a problem was:

17,20,24,26,27,30,38,34,40,35,47,41,44,49,45,48,44,54,50,60,58,63,55,20

Q.4. Solve (Any 3)

(15)

1. Draw a scatter plot for the given data that shows the number of games played and scores obtained in each instance.

No. of games	3	5	2	6	7	1	2	7	1	7
Scores	80	90	75	80	90	50	65	85	40	100

2. Calculate the mean, variance and standard deviation for the following data:

C.I	0-10	10-20	20-30	30-40	40-50	50-60
Frequency	27	10	7	5	4	2

3. The following numbers are written in ascending order of their values. If the median is 39, find the value of x

20,22,25,30, x-11, x-8, x-3, 52, 60, 68

4. Discuss various problems in construction of an Index Number

Q.5. Solve. (Solve any 2)

(20)

1. If the median of a distribution given below is 28.5, then find the value of x and y.

CI	0-10	10-20	20-30	30-40	40-50	50-60	Total
Frequency	5	x	20	15	y	5	60

2. Calculate the correlation coefficient of the given data.

x	50	51	52	53	54
y	3.1	3.2	3.3	3.4	3.5

3. Find linear regression equation for the following two sets of data:

x	2	4	6	8
y	3	7	5	10