



SHREE H. N. SHUKLA COLLEGE OF I.T. & MGMT.

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B.COM SEM - 6

ASSIGNMENT - 2023

SUB: BUSINESS STATISTICS – 6

MARK – 70

1. Life of electric bulbs of Roshni Electric Company is 1000 hours and its variance is 10000 hours. The life of bulbs follows normal distribution. Find (i) How many percentage of the bulbs will have life greater than 1200 hours? (ii) Less than 700 hours? (iii) Minimum life hours of 10% of good bulbs.

OR

2. The weights of 4000 students follow normal distribution with mean 50 kg and S.D. 5 kg. Find the number of students having weight.
- Less than 45 kg
 - Between 45 kg and 60 kg
 - More than 45 kg
3. State the components of a time series.

OR

4. Using the method of least square, fit a trend line to the following data and find the trend values and short – term fluctuations:

Year	1999	2000	2001	2002	2003	2004	2005	2006	2007
Values	232	226	220	180	190	168	162	152	144

5. Explain the methods of studying association.

OR

6. The information regarding blind persons and lunatic persons between two cities A and B is given below:

	City A	City B
Total Population	2,70,000	1,60,200
No. of Blind Persons	1,000	2,000
No. of Lunatic Persons.	6,000	1,000
No. of blind and lunatic persons	19	9

Find the coefficient of association between blind and lunatic persons between two cities and compare them.

7. Write short notes:

- Simple Random Sampling
- Stratified Random Sampling
- Systematic Sampling
- Size of Sample
- Sampling Errors

OR

8. A population of 500 units is divided into three strata of 100, 200, 200 units. The variances of the strata are 16, 25, 9 respectively. A sample of size 50 is taken from the population under proportional allocation. Find the number of units in samples of different strata. Also find $V(\bar{y}_{st})$.