



Date: 29-04-2025

Dept. No.

Max. : 100 Marks

Time: 09:00 AM - 12:00 PM

Section-A

Answer any FOUR of the following

(4 X 10=40 Marks)

1. Bring out the features and functions of Statistics
2. Find the variance and its coefficient for the following data.

Age in Years	10	15	20	25	30	35
No. of people	5	7	15	25	10	8

3. Describe the importance of the concept probability.
4. Explain the Addition and Multiplication theorems of probability with suitable examples
5. Give an account of the role of Poisson distribution.
6. Define hypothesis and null hypothesis.
7. Write a short note on: a) t-test b) F-distribution
8. Explain how level of significance is interpreted.

Section-B

Answer any THREE of the following

(3 X 20=60 Marks)

9. Calculate Arithmetic Mean and Median for the following data:

Class interval	0-5	5-10	10-15	15-20	20-25	25-30
Frequency	5	7	10	8	6	4

10. a) Explain the various types of events in probability with suitable examples.
b) A problem is given to three persons P, Q, R whose respective chances of solving it are $\frac{2}{7}$, $\frac{4}{7}$ and $\frac{4}{9}$ respectively. What is the probability that the problem is solved?
11. Four coins were tossed and number of heads noted. The experiment is repeated 200 times. Fit a Binomial distribution to these observed results.

Number of heads	0	1	2	3	4
Number of tosses	15	35	90	40	20

12. Explain the various properties of Normal distribution.
13. Elaborate the procedure of Testing of Hypothesis.
14. Explain the steps involved in calculating ANOVA one-way classification using a suitable illustration.
