

Roll No.

Total No. of Pages : 02

Total No. of Questions : 07

B.Tech (Ind. Engg. & Mgt.) (Spl. in TQM) PT (Sem.-2)

FUNDAMENTALS OF STATISTICS

Subject Code : IEM-203

M.Code : 61008

Time : 3 Hrs.

Max. Marks : 40

INSTRUCTIONS TO CANDIDATES :

1. Attempt Any EIGHT questions from SECTION-A carrying TWO marks each.
2. Attempt Any FOUR questions from SECTION-B carrying SIX marks each.

SECTION-A

1. Answer briefly :

- a) What is meant by cumulative frequency distribution?
- b) Discuss the applications of Range.
- c) Discuss the advantages of Standard Deviation.
- d) What are Scatter Diagrams?
- e) Discuss the applications of Regression.
- f) Discuss the classical approach of Probability.
- g) What is the difference between addition and multiplication theorem in probability?
- h) Discuss the application of Poisson Distribution.
- i) What is meant by standard error?
- j) Discuss the types of error that can occur during Hypothesis Testing.

SECTION-B

2. The scores of two batsmen A and B in ten innings during a certain season are:

A:	32	28	47	63	71	39	10	60	96	14
B:	19	31	48	53	67	90	10	62	40	80

Find (using coefficient of variation) which of the two batsmen, A or B, is more consistent in scoring?

3. Calculate the coefficient of skewness from the following data :

Mid-Point:	15	20	25	30	35	40
Frequency	12	18	25	24	20	21

4. Calculate Karl Pearson's Coefficient of correlation from the following data :

$\begin{matrix} X \\ \backslash \\ Y \end{matrix}$	200 - 300	300 - 400	400 - 500	500 - 600	600 - 700
10 - 15	-	-	-	3	7
15 - 20	-	4	9	4	3
20 - 25	7	6	12	5	-
25 - 30	3	10	19	8	-

5. Discuss the importance and properties of normal distribution. Explain in detail.
6. What is meant by sampling? Discuss the advantage and limitations of stratified sampling.
7. Write notes on :
- Criteria of good estimates.
 - Steps involved in Hypothesis Testing.

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.