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 :

X \ Y	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 :

a) Criteria of good estimates.

b) 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.