

MANAGEMENT PROGRAMME (MP)

Term-End Examination

December, 2021

**MMPC-005 : QUANTITATIVE ANALYSIS
FOR MANAGERIAL APPLICATIONS**

Time : 3 hours

Maximum Marks : 100

Note :

- (i) Section A has **six** questions, each carrying **15** marks.
Attempt any **four** questions.
- (ii) Section B is **compulsory** and carries **40** marks.
Attempt **both** questions.
- (iii) Use of calculator is permissible.
-
-

SECTION A

1. What do you understand by probability sampling methods ? Explain the various types of probability sampling.

2. Find the coefficient of correlation from the following data :

Fertilizer used (in metric tonnes)	Productivity (in metric tonnes)
15	85
18	93
20	95
24	105
30	120
35	130
40	150
50	160

3. Assume the mean height of soldiers to be 68.22 inches with a variance of 10.8 inches. How many soldiers in a regiment of 1000 would you expect to be over 6 feet tall ?
(Given : From Z table area between 0 and $1.15 = 0.3749$)
4. “The primary purpose of forecasting is to provide valuable information for planning the design and operation of the enterprise. Planning decisions may be long-term, medium-term and short-term.”
In view of the statement, explain the application of forecasting for long-term decisions.

5. What do you understand by the term “Probability theory” ? Explain different approaches to Probability theory.
6. Write short notes on any *three* of the following :
- (a) Mathematical Properties of Median
 - (b) Normal Distribution
 - (c) One-Tailed Test
 - (d) Hypothesis Testing Procedure
 - (e) Regression Analysis

SECTION B

7. What do you understand by the term “classification of data” ? What is the main reason of classifying data ? Also, explain some common types of classification.

 8. A coin is tossed 6 times. What is the probability of obtaining 4 or more heads ? What is the probability of getting at least 2 heads ?
-