

Master of Business Administration (MBA)/ Master of Business Administration (Online) MBA(OL) / Master of Business Administration (Banking and Finance) (MBF)/ Master of Business Administration(Financial Management) (MBAFM)/ Master of Business Administration(Human Resource Management) (MBAHM)/ Master of Business Administration(Marketing Management) (MBAMM) Master of Business Administration(Operations Management) (MBAOM)/Post Graduate Diploma in Operations Management (PGDIOM)

ASSIGNMENT

For

July 2025 and January 2026 Semesters

MMPC-005: Quantitative Analysis For Managerial Applications

**(Last date of submission for July 2025 Semester is 31st October 2025
and for January 2026 Semester is 30th April, 2026)**



**School of Management Studies
INDIRA GANDHI NATIONAL OPEN UNIVERSITY
MAIDAN GARHI, NEW DELHI – 110 068**

ASSIGNMENT

Course Code	:	MMPC-005
Course Title	:	Quantitative Analysis for Managerial Applications
Assignment Code	:	MMPC-005/TMA/ JULY/2025
Coverage	:	All Blocks

Note: Attempt all the questions and submit this assignment to the Coordinator of your study centre. Last date of submission for July 2025 Semester is 31st October, 2025 and for January 2026 Semester is 30th April 2026.

1. What is Statistical Decision Theory? Describe the four different states of decision environment in managerial applications. Which is the most prevalent state?
2. A certain manufacturing process yields electrical fuses of which, in the long run, 15% are defective. Find the probability that in a sample of 10 fuses selected at random there will be:
 - a) No defective
 - b) At least one defective
3. A manager at a drug manufacturing wants to estimate what proportion of the adult population of India has high blood pressure. He wants to be 99% sure that the error of his estimate will not exceed 0.02. Census reports indicate that about 0.20 of all adults have high blood pressure. What sample size shall he take?
4. For a set of 1000 observations known to be normally distributed, the mean is 534 cm and SD is 13.5 cm. How many observations are likely to exceed 561 cm? How many will be between 520.5 and 547.5 cm?
5. Write short notes on any three of the following:
 - a) Level of significance
 - b) Quartile Deviation
 - c) Criterion of optimism
 - d) Disproportional Stratified Sampling
 - e) Least Square Criterion