

NMIMS Centre for Distance and Online Education (NCDOE)

Course: Decision Science

Internal Assignment Applicable for Jun 2026 Examination

Assignment Marks: 30

Instructions

- *All Questions carry equal marks*
- *All Questions are compulsory*
- *All answers to be explained in not more than 1000 words for question 1 and 2 and for question 3 in not more than 500 words for each subsection. Use relevant examples, illustrations as far as possible*
- *All answers to be written individually. Discussion and group work is not advisable.*
- *Students are free to refer to any books/reference material/website/internet for attempting their assignments, but are not allowed to copy the matter as it is from the source of reference.*
- *Students should write the assignment in their own words. Copying of assignments from other students is not allowed*
- *Students should follow the following parameter for answering the assignment questions*

For Theoretical Answer	
Assessment Parameter	Weightage
Introduction	20%
Concepts and Application related to the question	60%
Conclusion	20%

For Numerical Answer	
Assessment Parameter	Weightage
Understanding and usage of the formula	20%
Procedure / Steps	60%
Correct Answer & Interpretation	20%

PLEASE NOTE: This assignment is application based, you have to apply what you have learnt in this subject into real life scenario. You will find most of the information through internet search and the remaining from your common sense. None of the answers appear directly in the textbook chapters but are based on the content in the chapter

NMIMS Centre for Distance and Online Education (NCDOE)

Course: Decision Science

Internal Assignment Applicable for Jun 2026 Examination

Q1 A university wants to study the average marks of its 600 students in a semester exam. The students are divided into three departments: Science (250), Arts (200), and Commerce (150).

The research team considers two options:

Option A: Randomly select 30 students from the entire student population.

Option B: Select students proportionally from each department: 12 from Science, 10 from Arts, and 8 from Commerce.

Which sampling method would give more accurate and representative results? Justify your answer using reasoning from the case.

(10 Marks)

Q2 Calculate Arithmetic Mean from the following data.

Wages	Number of Workers(f)
70-80	12
80-90	18
90-100	35
100-110	42
110-120	50
120-130	45
130-140	20
140-150	8

(10 Marks)

Q3 (A) Find the probability of drawing a king, a queen and a knave in that order from a pack of cards in three consecutive draws, the cards drawn not being replaced

(5 Marks)

Q3 (B) A continuous random variate which is normal with mean 485 and standard deviation 23. Calculate the percentage of items between 450 and 485.

Area between 0 and Z



NMIMS Centre for Distance and Online Education (NCDOE)

Course: Decision Science

Internal Assignment Applicable for Jun 2026 Examination

Z	0	0.01	0.02	0.03	0.04	0.05
1.5	0.4332	0.4345	0.4357	0.437	0.4382	0.4394

(5 Marks)
