

No. of Printed Pages : 03

Roll No.

35411

**Diploma in Data Science
EXAMINATION, 2025**

(Second Semester)

PGDS-23-21

Artificial Intelligence For Data Analytics

Time : 3 Hours]

[Maximum Marks : 80

Before answering the question-paper candidates should ensure that they have been supplied to correct and complete question-paper. No complaint, in this regard, will be entertained after the examination.

Note : Attempt *Five* questions in all, selecting at least *one* question from each Unit. All questions carry equal marks.

Unit I

1. Describe various domains of Artificial Intelligence and their real-world applications. **16**
2. Explain the following : **16**
 - (a) Depth first search
 - (b) Breadth first search.

Unit II

3. Explain the Dempster-Shafer theory and its application in uncertain reasoning. **16**
4. Explain the following : **16**
 - (a) Forward chaining
 - (b) Backward chaining.

Unit III

5. Explain the concept of error surface and local minima in training neural networks. **16**

6. Explain the architecture and learning mechanism of a multilayer perceptron. **16**

Unit IV

7. Explain, how fuzzy rules are generated from linguistic variables ? **16**
8. Explain linguistic hedges and their role in fuzzy systems. **16**

