

4-34/2051/A

1273/MU  
Set-3

**BSCHAI-121: Introduction to Artificial Intelligence and Data Science**

Sem-II

**Time: 3 Hrs.**

**Max Marks: 75**

*Note: Candidates are required to attempt two question each from the sections A & B of the question paper and the entire section C.*

**Section-A**

1. Briefly explain the application areas of Artificial Intelligence. 15
2. Explain the syntax and semantics of propositional logic. 15
3. What is supervised learning? How decision tree is used in supervised learning? 15
4. Explain the techniques for edge detection, and image segmentation. 15

**Section-B**

5. Explain application areas of Data Science. 15
6. What are anomalies in the dataset? How these anomalies are handled while processing dataset? 15
7. How graph based data is represented? Explain. 15
8. Explain predictive modeling. 15

**Section-C**

9.
  - a. What is dynamic programming?
  - b. Write in FOPL: "Joe has written at least one song."
  - c. What is relevance based learning?
  - d. What are live data streams?
  - e. Write the features of Julia language.

5X3=15