

Seat No. **OCT-NOV 2025 WINTER EXAMINATION****1154 B.Tech. CBCS****Sub. Name: Fundamentals of AI****Sub. Code: 86168****Day and Date: Monday ,08-12-2025****Total Marks: 70****Time: 10:30 AM To 01:00 PM****Instructions:**

- Special Inst.:**
1. Question no. 6 is compulsory
 2. Solve any four questions from Q. No. 1 to Q. No. 5
 3. Assume suitable data wherever necessary
 4. Figures to the right indicate full marks

- Q1) Solve the following questions [15]**
 a) Explain concept of Artificial Intelligence and applications of it(8 Marks)
 b) Explain Depth First search Algorithm in detail.(7 Marks)
- Q2) Solve the following questions [15]**
 a) Briefly explain advantages and disadvantages of rule based expert system. (8 Marks)
 b) Design & Explain Heuristic Function with example (8-Puzzle Problem). (7 Marks)
- Q3) Solve the following questions [15]**
 a) Illustrate fundamental characteristics of expert system.(8 Marks)
 b) What is conflict? Describe conflict resolution techniques(7 Marks)
- Q4) Solve the following questions. [15]**
 a) Explain Expert System development team and their responsibilities (8 Marks)
 b) Explain proportional and predicate calculus in detail. (7 Marks)
- Q5) Solve the following questions [15]**
 a) Briefly describe Hill climbing algorithm with its demerits.(8 Marks)
 b) What are the Methods used for conflict resolution.(7 Marks)
- Q6) Write a short note on: (Any 2) [10]**
 a) Conflict Resolution
 b) Generalization
 c) Specialization

End Of Question Paper**Important Note for Chief Exam Officer / SRPD Coordinator / Sr Supervisor/ Student -**

This Question Paper may be distributed for following Subjects as common code.

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