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# **B.TECH. DEGREE EXAMINATION, NOVEMBER 2011**

# **Eighth Semester**

Branch : Computer Science and Engineering/Information Technology ARTIFICIAL INTELLIGENCE (RT)

(Supplementary)

Time : Three Hours

Maximum: 100 Marks

Answer all questions.

## Part A

### Each question carries 4 marks.

1. What are major objectives of Artificial Intelligence ?

2. How to represent knowledge in AI?

3. Define uniform cost searching.

4. Explain importance of Heuristics in AI.

5. What are forwarding charming rule systems ?

6. Explain Alpha -Beta pruning.

7. What is meant by semantic nets?

8. Show that  $p \to q = \neg p \lor q$ .

9. What are meta predicates ?

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10. How to define frames using prolog?

## $(10 \times 4 = 40 \text{ marks})$

#### Part B

#### Each question carries 12 marks.

11. "AI technique is more suitable than traditional techniques". Why it is so ? Give suitable example.

Or

12. Explain BFS and DFS and compare the two methods.

13. What are Heuristic for constraint satisfaction problem and iterative deepening ?

## Or

Explain A\* algorithm and compare with AO\*.

15. What are imperfect decisions and evaluation functions ?

Or

16. Explain the Alpha-Beta pruning with example.

17. Using inferencing find who assassinated Caesar ?

Premises : "All Romans are Pompians. Brutus was a Pompian. Caesar was a Roman and a Pompian. Caesar was the ruler of Rome. All Romans dislike rulers. Caesar was assassinated".

# Or

18. Explain unification forward and backward chaining.

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19. How facts can be represented by prolog ? Explain with examples.

# Or

20. Explain the way in which prolog can be used in Artificial Intelligence.

 $(5 \times 12 = 60 \text{ marks})$