

B.TECH. DEGREE EXAMINATION, NOVEMBER 2014**Seventh Semester**

Branch : Applied Electronics and Instrumentation/Electronics and
Instrumentation Engineering

ARTIFICIAL INTELLIGENCE AND EXPERT SYSTEMS (Elective I) (AS)

(Old Scheme—Prior to 2010 Admissions)

[Supplementary/Mercy Chance]

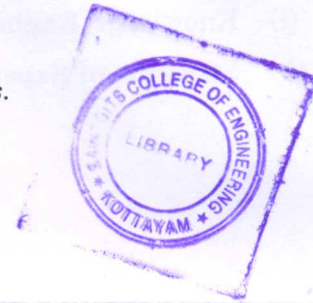
Time : Three Hours

Maximum : 100 Marks

Part A

*Answer all questions.
Each question carries 4 marks.*

1. Define and explain AI.
2. Differentiate between Data and Knowledge.
3. List the advantages of AO* algorithm.
4. Define search. List the different types.
5. Compare propositional logic with predicate logic.
6. Define clause.
7. List the advantages of Semantic nets.
8. State the advantages of frames.
9. Define 'Expert system'.
10. List the applications of expert systems ?



(10 × 4 = 40 marks)

Part B

*Answer all questions.
Each question carries 12 marks.*

11. Explain puzzle problem.

Or

12. Define Backward reasoning. Draw diagrams and explain how Backward Reasoning is implemented.
13. Draw a game tree and explain MIN-MAX strategy.

Or

14. Draw an AND/OR Graph and explain its operation.

Turn over

15. What is called Non-monotonic reasoning ? Explain Dependency directed Backtracking with an example.

Or

16. Define resolution. Explain the steps with an example.

17. Draw a script for a Hospital and explain.

Or

18. Explain conceptual dependency representation of Knowledge. Compare with Scripts.

19. Consider the development of an Expert system for a doctor. Give the case study.

Or

20. Write notes on :

(i) Knowledge Engineering.

(ii) Structure of Expert System.

(5 × 12 = 60 marks)

