G 1379 (Pages : 2) Reg. No.....

Name.....

B.TECH. DEGREE EXAMINATION, MAY 2015

Seventh Semester

Branch : Applied Electronics and Instrumentation/Electronics and Instrumentation Engineering

ARTIFICIAL INTELLIGENCE AND EXPERT SYSTEMS (Elective I) (A,S)

(Old Scheme – Prior to 2010 Admissions)

[Supplementary]

Time : Three Hours Maximum : 100 Marks

Part A

Answer **all** *questions.*

Each question carries 4 *marks.*

1. Discuss few applications of Artificial intelligence.
2. What is meant by backward reasoning? Explain.
3. Discuss the features of Mean ends Analysis.
4. Write short note on Alpha Beta cutoffs.
5. What is predicate logic? Illustrate with an example.
6. Explain the concept of fuzzy logic.
7. What is learning?
8. Describe the concept of Frame.
9. What are the distinctive features of an expert system?
10. Mention few advantages and Limitations of Expert system.

(10 × 4 = 40 marks)

Part B

Answer **all** *questions.*

Each question carries 12 *marks.*

11. Discuss about problem space and problem characteristics.

Or

12. Explain Tower of Hanoi problem.

Turn over

13. Explain AO* Algorithm. What are its features?

Or

14. Write short notes on :

    (a) Min-Max strategy.

    (b) AND-OR graphs.

15. Explain Unification algorithm. Illustrate with an example.

Or

16. Explain resolution algorithm in propositional logic.

17. Discuss about Semantic nets and Conceptual Dependency.

Or

18. Explain different methods of learning.

19. What is an expert system? Explain, in detail how it differs from the conventional programs.

Or

20. Discuss about the structure of an expert system.

(5 × 12 = 60 marks)