Roll No. ☐☐☐☐☐☐☐☐☐☐☐   **Total No. of Pages : 02**

Total No. of Questions : 18

<div align="center">

B.Tech (CSE)   (Sem.–7)
EXPERT SYSTEM
Subject Code : CS-424
Paper ID : [A0488]

</div>

Time : 3 Hrs.   **Max. Marks : 60**

INSTRUCTIONS TO CANDIDATES :
  1. **SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.**
  2. **SECTION-B contains FIVE questions carrying FIVE marks each and students have to attempt any FOUR questions.**
  3. **SECTION-C contains THREE questions carrying TEN marks each and students have to attempt any TWO questions.**

<div align="center">

SECTION-A

</div>

Answer briefly :

  1. Why are expert systems in great demand today?

  2. Define predicate logic.

  3. Differentiate between knowledge and data.

  4. What do you understand by nodes and links in semantic nets?

  5. State any disadvantage of inference engine in expert systems.

  6. List the components of an expert system.

  7. What is the need of domain knowledge in expert system?

  8. Write specific features of Prolog needed in designing of expert system.

  9. Describe fuzzy logic.

  10. Define shell with respect to expert system.

SECTION-B

11. Describe learning with respect to neural expert system.

12. Discuss frames as the slot and filler knowledge representation techniques.

13. Explain the features of a good end user interface in a fuzzy logic based expert system.

14. Describe the following :

    a) EMYCIN

    b) Domain exploration

15. What are the advantages and applications of various knowledge acquisition methods? Explain.

SECTION-C

16. Explain the following with reference to fuzzy expert system :

    a) architecture of fuzzy expert system

    b) Fuzzy rule base

17. Describe the necessary steps in the development of expert systems with suitable example.

18. What do you understand by real time expert system? Also describe its limitations.