Roll No. | | | | | | | | | | | | |

Total No. of Pages : 02

Total No. of Questions : 18

B.Tech.(CSE) (2012 to 2017) (Sem.–7,8)

ARTIFICIAL INTELLIGENCE

Subject Code : BTCS-701

M.Code : 71893

Time : 3 Hrs.

Max. Marks : 60

INSTRUCTION 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.

SECTION-A

Write briefly :

1) What is state space search?

2) What is Conflict Resolution Strategies?

3) What is an expert system shell?

4) What is a frame problem?

5) What is an inference engine?

6) What is a Rule based programming?

7) What is a monotonic Production System?

8) What is learning by induction?

9) What is probabilistic reasoning?

10) What is a search path?

SECTION-B

11) Under what conditions would it make sense to use both forward and backward chaining? Give an example where both are used.

12) How AI handles reasoning under uncertainity. Explain with example.

13) Explain the following with example :

    a) Forward reasoning

    b) Non Monotonic Reasoning

14) With examples explain how unification algorithm works?

15) What are the possible heuristics for the Travelling salesman problem?

SECTION-C

16) What do you understand by supervised and unsupervised learning? What are the major characteristics and differences between them?

17) What are the steps in the natural language processing? How various grammars are constructed?

18) Describe the similarities and differences between learning automata and gentic algorithms. Which learner would be best at finding optimal solutions to nonlinear functions? Give reasons to support your answer.

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.