Roll No. ....

24333

B. Tech. 6th Semester (IT)

Examination – May, 2019

INTELLIGENT SYSTEMS

Paper : CSE-304-F

Time : Three Hours]   *[Maximum Marks : 100*

Before answering the questions, candidates should ensure that they have been supplied the correct and complete question paper. No complaint in this regard, will be entertained after examination.

Note : Attempt any *five* questions in all, selecting *one* question from each Section. Question Number 1 is *compulsory.* All questions carry equal marks.

1. Explain the following :   20

   (a) Describe various AI applications to robotics.

   (b) What is knowledge base ? How it is different from Database ?

   (c) Explain the concept of Knowledge Acquisition.

   (d) Learning by Analogy.

SECTION – A

2. (a) What is the difference between Breath first search and Depth first search ? Explain with the help of example.   10

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   (b) Explain various problems and their solutions in hill climbing algorithm.   10

3. (a) What is best first strategy ? Explain Λ^* algorithm with the help of example.   10

   (b) What is alpha and beta pruning ? Explain with example.   10

SECTION – B

4. (a) Explain various knowledge representation issues in detail.   10

   (b) Write a short note on with example :   10

       (i) Frames

       (ii) Inheritance

       (iii) Semantic Nets

5. What is reasoning under uncertainty ? Explain review of probability. How Baye's probabilistic interferences theory is helpful for solving probability based problems.   20

SECTION – C

6. (a) Define fuzzy reasoning. What are the various operations on fuzzy sets ?   10

   (b) Differentiate between planning and partial order planning.   10

7. (a) Explain Non-monotonic reasoning with the help of example.   10

   (b) What is Symbolic reasoning under uncertainty ? How it is different from temporal reasoning ?   10

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SECTION – D

8. What is an expert system ? Describe the various components of expert system in detail.   20

9. Write short notes on the following :   20

   (a) Artificial neural networks

   (b) Learning from examples

   (c) Principles of Natural Language Processing (NLP)