

B.Tech 6th Semester (IT) F-Scheme Examination,

May-2017

INTELLIGENT SYSTEM

Paper-CSE-304-F

Time allowed : 3 hours] [Maximum marks : 100

Note : Question No. 1 is compulsory. Attempt five questions in total selecting one question from each Section.

1. Explain the following : 4×5=20
- (a) Blind search and heuristic search technique.
 - (b) Various knowledge representation issues.
 - (c) Partial order planning.
 - (d) Genetic algorithm.

Section-A

2. (a) Explain intelligence and artificial intelligence. How do you distinguish between the two ? Give different definitions based on various forms of intelligence. 10
- (b) Write a program in PROLOG to solve a tower of Hanoi problem. 10

3. Explain AO* algorithm. Is AO* algorithm guaranteed to find an optimal goal path if one exists. Explain giving examples. 20

Section-B

4. (a) Describe the properties of knowledge representation system. 10
 (b) Describe Dempster Shafer theory. 10
5. Write notes on : 20
 (a) Rule based deduction systems
 (b) Baye's theorem

Section-C

6. (a) Explain non monotonic reasoning. 10
 (b) What do you mean by planning ? Explain various steps in planning process. 10
7. Write notes on : 20
 (a) Statistical reasoning
 (b) Temporal reasoning

Section-D

8. What is an expert system ? Describe various components and applications of an expert system. Mention some advantages and disadvantages of expert systems. 20

9. What do you mean by natural language processing ? Explain various stages of natural language processing. Also mention need and advantages of natural language processing. 20