PVP 14

Code: IT8T3A

IV B.Tech - II Semester – Regular / Supplementary Examinations
March 2019

ARTIFICIAL INTELLIGENCE
(INFORMATION TECHNOLOGY)

Duration: 3 hours Max. Marks: 70

PART – A

Answer ***all*** the questions. All questions carry equal marks

11 x 2 = 22 M

1.

a) List the fields that form the basis for AI.
b) Define the problem decomposable.
c) What are Advantages of Heuristic search?
d) How the steepest Ascent hill climbing works?
e) Define OR and AND-OR graph
f) Identify the need of facts and its representation.
g) Define Conflict resolution.
h) Give the definition of Frame problems.
i) What is conceptual dependency?
j) Define speech reorganization.
k) What is an expert system shell?

PART – B

Answer any ***THREE*** questions. All questions carry equal marks.
3 x 16 = 48 M

2. a) Describe briefly the various problem characteristics? 8 M

   b) Interpret the meaning of a production system and, advantage and disadvantage of production systems. 8 M

3. a) Illustrate in detail about the constraint satisfaction procedure with example? 8 M

   b) Discuss about A* algorithm with suitable example. 8 M

4. a) Illustrate in detail about forward and backward reasoning with example. 8 M

   b) Describe how you will represent facts in predicate logic with an example. 8 M

5. a) How weak slot and filler is different than strong slot and filler structures. 8 M

   b) Explain the dependency directed backtracking search with example. 8 M

6. a) Explain the difficulties involved in developing an expert system. 8 M

b) Describe the schematic representation of Robot Architectures. 8 M