CBCS SCHEME

USN ☐☐☐☐☐☐☐☐☐☐   15CS562

Fifth Semester B.E. Degree Examination, Dec.2018/Jan.2019
Artificial Intelligence

Time: 3 hrs.   Max. Marks: 80

Note: Answer any FIVE full questions, choosing ONE full question from each module.

Module-1

1 a. Define Artificial Intelligence and list the task domains of Artificial Intelligence.   (06 Marks)
   b. State and explain algorithm for Best First Search with an example.   (06 Marks)
   c. Explain production system.   (04 Marks)

OR

2 a. Write a note on Water Jug problem using production rules.   (08 Marks)
   b. Explain simulated annealing.   (04 Marks)
   c. Explain problem reduction with respect to AND-OR graphs.   (04 Marks)

Module-2

3 a. Explain the approaches to knowledge representation.   (10 Marks)
   b. Write a note on control knowledge.   (06 Marks)

OR

4 a. State the algorithm to Unify (L_1, L_2).   (06 Marks)
   b. Write the algorithm for conversion to clause form.   (10 Marks)

Module-3

5 a. Explain Justification based Truth Maintenance System (TMS) with an example.   (08 Marks)
   b. Write a note on Non-Monotonic logic and default logic.   (04 Marks)
   c. Explain abduction and inheritance.   (04 Marks)

OR

6 a. Write a note on Dempster Shafer theory.   (08 Marks)
   b. Define semantic network with an example.   (04 Marks)
   c. State Baye's theorem.   (04 Marks)

Module-4

7 a. Explain conceptual dependency along with its goals and representation.   (08 Marks)
   b. Give the reasons to build large databases.   (04 Marks)
   c. Write a note on iterative deepening.   (04 Marks)

OR

8 a. Write a note on global ontology.   (10 Marks)
   b. Explain Minimax search procedure.   (06 Marks)

Module-5

9 a. Define learning and give the difference between neural net learning and genetic learning.
                                                                                                (06 Marks)
   b. Write a note on Knowledge acquisition.   (06 Marks)
   c. Explain Rote learning.   (04 Marks)

OR

10 a. Explain the five phases of natural language processing.   (10 Marks)
   b. Explain spell checking techniques.   (06 Marks)

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