

CBCS SCHEME

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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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