Roll No. ....

OLE-97693

BCA 6th Semester (Re-Appear) Examination – April, 2021

ARTIFICIAL INTELLIGENCE

Paper : BCA-308

Time : Three Hours]   *[Maximum Marks : 80*

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 *five* questions in all. Question Number **1** is ***compulsory*** and attempts ***four*** more questions by selecting ***one*** question from each Unit. All questions carry equal marks.

   1. (a) What are the issues in the design of search problem ?

   (b) Describe the Turing test in AI ?

   (c) What is heuristic search ?

(d) What is propositional logic ?

(e) What is Rote learning ?

(f) What are the advantages of learning from example ?

(g) What in MYCIN ?

(h) What is uncertainty in expert system ?

UNIT – I

2. (a) What is AI and AI techniques ? Briefly explain various AI techniques with suitable example.

(b) Explain in detail the applications of AI.

3. (a) Explain the state space representation of Water Jug Problem.

(b) Describe the following in detail :

(i) Hill climbing

(ii) Best first search

UNIT – II

4. What do you mean by knowledge representation ? Explain various approaches & issues in knowledge representation.

5. What is predicate logic ? Explain various inference techniques of predicate logic.

UNIT – III

6. (a) What do you mean by natural language processing ? What are its applications ?

(b) Differentiate between syntactic processing and semantic processing.

7. (a) What is learning ? Explain how learning is helpful for AI.

(b) Write short notes on explanation based learning and learning by taking advice.

UNIT – IV

8. Explain expert system along with its detailed architecture. What are the advantages and disadvantages of expert system ? What are its application areas ?

9. Write short notes on following :

(i) Knowledge representation in expert system

(ii) Expert system shell

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