BCA(VI) — 603

2017

Time : 3 hours

Full Marks : 80

Candidates are required to give their answers in their own words as far as practicable.

The questions are of equal value.

Answer *five* questions in which
Q. No. 1 is compulsory.

1. Select the correct answer of the following mutliple choice questions :

   (i) What term is used for describing the judgemental or common sense part of problem solving ?

   (a) Heuristic

   (b) Value based

   (c) Critical

   (d) Analytical

   (ii) Programming a Robot by physically moving it through the trajectory, you want it follow is called :

   (a) Contact sensing control

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(b) Continuous path control

(c) Pick and place control

(d) Robot vision control

(iii) To invoke LISP system, one must enter :

(a) AI

(b) CL

(c) LISP

(d) Both (a) and (b)

(iv) Weak AI is :

(a) The embodiment of human intellectual capabilities within a computer

(b) The study of mental faculties through the use of mental models implemented on computer

(c) Both (a) and (b)

(d) None of the above

(v) An AI technique that allows computers to understand associations and relationship between object and event is known as :

(a) Heuristic processing

(b) Relative symbolism

(c) Pattern matching

(d) Cognitive science

(vi) Blind search termed for :

(a) Informal search

(b) Uninformed search

(c) Heuristic search

(d) None of these

(vii) The field that investigates the mechanics of Human Intellegence is :

(a) Psychology

(b) Cognitive science

(c) Both (a) and (b)

(d) None of these

(viii) Which data structure is used to implement BFS ?

(a) Stack

(b) Queue

(c) Priority Queue

(d) All of these

2. What is AI ? Describe its definition according to its categories.

3. Define uninformed search. Explain its different types with appropriate examples.

4. What is Intellegent Agent Environment ? Explain its various types and structures.

5. What is toy problem ? Explain which problems it formulates with.

6. Represent the following in language of logic :
   (i) Ramesh likes books or Ramesh Reads books.
   (ii) Ram eats everything that he likes.
   (iii) All crows are black.

7. What do you mean by knowledge based agent ? Explain the use of forward and backward chaning.

8 Write short notes on the following :
   (i) Alpha beta pruning
   (ii) FOPL
   (iii) Rational Agents
   (iv) The use of AI in our real life

9. Differentiate between BFS and DFS. Describe the application of BFS and DFS. Also explain which search is better in both.

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