Total No. of Questions :5] *[Total No. of Printed Pages :2*

Roll No .....

IT - 833

B.E. VIII Semester

Examination, June 2016

Artificial Intelligence

(Elective-III)

Time : Three Hours

Maximum Marks : 70

Note: i) Answer five questions. In each question part A, B, C is compulsory and D part has internal choice.
ii) All parts of each questions are to be attempted at one place.
iii) All questions carry equal marks, out of which part A and B (Max.50 words) carry 2 marks, part C (Max.100 words) carry 3 marks, part D (Max.400 words) carry 7 marks.
iv) Except numericals, Derivation, Design and Drawing etc.

1. a) List a few of the task domain of AJ.
   b) Name various types of control strategies.
   c) Discuss benefits and short comings of Breadth first search techniques.
   d) Enumerate classical "Water Jug Problem". Describe the state space for this problem.

   OR

   Explain the meaning of a production system in Artificial Intelligence with example. What are the main component of a production system. Write in detail about each component?

2. a) Write any two difference between procedural and declaration knowledge?
   b) What is Resolution Principle?
   c) Explain non-monotonic reasoning.
   d) Explain and write unification Algorithm.

OR

Consider the following sentences
i) John likes all kinds of food.
ii) Apples are food.
iii) Anything anyone eats and is not killed by is food.
iv) Chicken is food.

3. a) Write any three Application of Fuzzy logic?
   b) Explain Forward reasoning.
   c) What are Frame? How do they differ from Semantic nets?
   d) Explain conceptual dependency? Show a Conceptual dependency representation of the sentence.
   John begged Mary for a pencil.

   OR

   Construct a semantic nets
   i) The dog bit the mail carrier.
   ii) Every dog has bitten every mail carrier.

4. a) List any two natural languages processing system.
   b) What is alpha-beta pruning?
   c) Why planning is important in A.I?
   d) Explain minimax search procedure Algorithm with example.

   OR

   What are the steps in natural language Processing? List and explain them briefly.

5. a) Mention some of the key application of Expert System.
   b) List various learning techniques.
   c) Give any three application of Neural Network.
   d) Explain the basic architecture of an expert system. Also give its applicability it different areas with suitable examples.

   OR

   Write a short notes:
   i) Common sense ii) Reasoning

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