Chaitanya Bharathi Institute of Technology(Autonomous)
Department of Information Technology
B.E. III/IV (I.T.), II-Semester, I-Mid Examinations, Feb-2018
Sub: Computation Intelligence

Date: 06-02-2018
Time: 2.00p.m. to 3.00 p.m.
Max. Marks: 20

Notes:- Answer all questions in Part-A and any two from Part – B.

Part – A (3X2=6 marks)

1. List the Sub areas of AI. 1M [CO1]
2. Write about MINIMAX procedure. 2M[CO1]
3. Write a short notes on resolution Methods in Logic Programming 2M [CO2]
4. What are the different approaches to Knowledge representation? 1M [CO2]

Part – B (2X7=14 marks)

5. A) Explain about A* algorithm. 5M[CO1]
   B) How is A* algorithm is admissible? 2M[CO1]
6. A) Using the below rules and Facts, Check whether the ground goal ←grandmother('Mary', 'Mike') is true.

   Rules:

   // X is a grandmother of Y if X is mother of Z and Z is mother or father of Y

   grandmother(X,Y) ← mother(X,Z), parent(Z,Y)

   parent(X,Y) ← father(X,Y)

   parent(X,Y) ← mother(X,Y)

   Facts:

   mother('Mary', 'John') ←

   mother('Tina', 'Kittu') ←

   mother('Kittu', 'Mita') ←

   mother('John', 'Mike') ← 4M[CO2]

   B) Write a short notes on Extended Sematic network. 3M[CO2]

7. A) Solve the following puzzle by assigning numeral(0-9) in such a way that each letter is assigned unique digit which satisfy the following addition. 4M [CO1]

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   T W O
 + T W O
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 F O U R
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8. Show that a set S={~(AVB),(B→C), AVC} is consistent. 3M[CO2]

Chaitanya Bharathi Institute of Technology
Department of Information Technology
B.E III Year II-Semester II-Mid Examinations, 2017-18
Subject: Computational Intelligence

Date: 04.03.2018 Time: 2.00 to 3.00 p.m. Max.Marks: 20

NOTE: Answer all questions from PART-A and Any TWO from PART-B

PART-A [6M]

1. What are the different phases in Expert System? [CO3][1M]
2. Define Baye's theorem. [CO3][1M]
3. State about Rote learning. [CO4][1M]
4. What are the different Design issues of Artificial Neural Networks? [CO5][1M]
5. What are the different cases in Case grammars ? [CO6][1M]
6. What are different Sentence Analysis phases in Natural Language Processing? [CO6][1M]

PART-B [2X7=14M]

7. (a) write a short notes on semantic Web. [CO6][3M]

   (b) For the following grammar take any valid sentence and Parse using Chart Parser. [CO6][4M]

   <S> -> <NP> <VP>
   <NP> -> <Det> <Noun>
   <NP> -> <Det> <Adj> <Noun>
   <NP> -> <Adj> <Noun>
   <VP> -> <Verb>
   <VP> -> <Verb> <NP>

8. (a) Briefly explain Expert system architecture. [CO3][4M]
   (b) Write about Components of a Learning System. What Are different types of Learnings? [CO4][3M]

9. (a) Explain about Certainty Factor theory. [CO3][4M]
   (b) Write a short notes on Hopfield Network. [CO5][3M]

Paper set by: . Ms .KNVS Sridevi & Ms.K.Swathi, IT Dept.