Exam Date & Time: 01-Dec-2020 (11:00 AM - 12:20 PM)

CHAROTAR UNIVERSITY OF SCIENCE AND TECHNOLOGY

Charotar University of Science and Technology [CHARUSAT]
Faculty of Technology and Engineering
Devang Patel Institute of Advance Technology and Research
Department of Information Technology
Subject: IT473 Artificial Intelligence
Unit Test - II

Artificial Intelligence [IT473]

Marks: 30 **Duration: 80 mins.**

Section-1

Answer all the questions.

1) TEE + LET = ALL where E=5 find A+L+L (1)

1) 17 2) 9 3) 12 4) 10

2) One of the main challenge/s of NLP Is _____ (1)

1) Handling Ambiguity of Sentences 2) Handling Tokenization 3) Handling POS Tagging 4) All of the mentioned

3) Natural Language generation is the main task of Natural language processing. (1)

1) True 2) False

4) Many words have more than one meaning; we have to select the meaning, which makes the most sense in context. This can be resolved by _____ (1)

1) Fuzzy Logic 2) Word Sense Disambiguation 3) Shallow Semantic Analysis 4) All of the mentioned

5) Semantic Networks is _____ (1)

1) A way of representing knowledge 2) Data Structure 3) Data Type 4) None of the mentioned

6) There exists two way to infer using semantic networks: - (a) Intersection Search and (b) Inheritance Search (1)

1) True 2) False

7) Following are the elements, which constitutes to the frame structure. (1)

1) Facts or Data 2) Procedures and default values 3) Frame names 4) Frame reference in hierarchy

8) Which function is used to calculate the feasibility of whole game tree? (1)

1) Evaluation Function 2) Transposition 3) Alpha-beta pruning 4) All of the mentioned

9) A game can be formally defined as a kind of search problem with the following components: (1)

1) Initial State 2) Successor Function 3) Terminal Test 4) All of the mentioned

10) The initial state and the legal moves for each side define the _____ for the game. (1)

1) Search Tree 2) Game Tree 3) State Space Search 4) Forest

Section-2

Answer all the questions.

11) Solve any one the Following Crypt arithmetic Problem: (5)

D O N A L D + G E R A L D --- R O B E R T Where D=5	+ CROSS ROADS --- DANGER

12) Prepare the Partitioned Semantic Net for the following: (3)

"Every batter hits a ball"

13) Explain Bayes' Theorem. What is the significance of it in Naïve Bayesian Classification and Bayesian Belief Network . (4)

14) (5)

Let X = {a,b,c,d} and Y = {1,2,3,4}

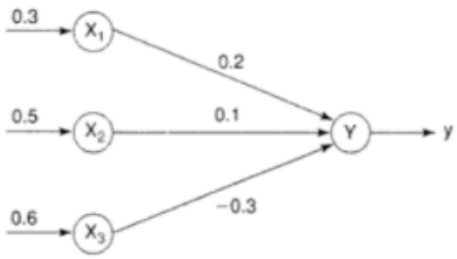
A = {(a,0)(b,0.8)(c,0.6)(d,1)}

B = {(1,0.2),(2,1)(3,0.8)(4,0)}

C = {(1,0)(2,0.4)(3,1)(4,0.8)}

Determine implication relations IF x is A THEN y is B ELSE y is C.

15) Obtain the output of the neuron Y for the network shown in figure using activation function as binary sigmoidal. (3)



-----End-----