

Course No: MAN 2303
Course Title: Special Topics
Date: 5/3/2013
No. of Questions: (3)
Time: 10 Minutes
Total Grade:

University of Palestine



Midterm Exam
Second Semester 2012/2013

Instructor Name: Najwa Baraka
College Name: Information
Technology
Dep. / Specialist: Management
Information Systems
Student No.:
Student Name:

Question One

(10 Points)

1. Write the key terms for the following definitions

1. In unsupervised learning the ANN is trained repeatedly by examples
2. A proposition that is always true.
3. Statements are in the form of condition-action pairs
4. Systems which converts normal language text into speech.
5. An ANN architecture in which an output is returned back as an input

2. Make the following statements Tor F as appropriate

1. Semantic nets be used to represent a procedural and descriptive knowledge
2. "Close the door" is a proposition
3. In AI replicating human intelligence consider an easy and achievable goal
4. Genetic Algorithms are biology-inspired AI techniques
5. "The room's temperature is 25 " is a procedural knowledge

Question Two:

(10 Points)

1. Determine whether this proposition is tautology , contradiction, or neither

- $\neg (p \vee \neg (p \wedge q))$

2. Translate the following English statements into predicate logic

1. Every first-year student has an academic advisor
2. Someone is a painter
3. All Palestinians are Arabs
4. If it is raining, then it is not sunny
5. Some integers are prime odd

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Question Three:

(20 Points)

1. Construct a single layer perceptron to solve the following problems :

(1)

NOT, threshold = -0.5 ,w1 = -1	
In	Out
0	
1	

(2)

AND threshold = 1.5, W1= 1, W2=1		
In1	In 2	Out
0	0	
0	1	
1	0	
1	1	

(3)

OR threshold = 0.5, W1= 1, W2=1		
In1	In 2	Out
0	0	
0	1	
1	0	
1	1	

2. Given the following information , use supervised learning to generate the desired output

Input vector = [1 0 1]
 Weights vector = [0.5 0.2 0.8]
 Threshold =1.2
 Learning Rate= 1
 Desired Output = 0

Best of Luck

"Success consists of going from failure to failure without loss of enthusiasm."

-Winston Churchill