



7. A Summation function is a ----- for the input signals. CO4- R  
 (a) Tokenizer (b) Multiplier  
 (c) Linear Combiner (d) None of the above
8. The inputs of the McCulloch-Pitts neuron could be ---- CO4- R  
 (a) +1 or -1 (b) 0 or 1 (c) 0 or -1 (d) None of the above
9. ----- is an example of unsupervised learning tasks. CO5- R  
 (a) Classification (b) Simple Regression  
 (c) Logistic Regression (d) Association Analysis
10. Which of the following is worked based on the data without any prior training? CO5- R  
 (a) Classification (b) Simple Regression  
 (c) Logistic Regression (d) Clustering

PART – B (3 x 8 = 24 Marks)

**(Answer any Three of the following Questions)**

11. Explain in detail the different types of Machine learning process in detail. CO1- U (8)
12. For preparation of the exam, a student knows that one question is to be solved in the exam which is either of types A, B or C. The probabilities of A,B, or C appearing in the exam are 30%, 20% and 50 % respectively. During the preparation, the student solved 9 of 10 problems of type A, 2 of 10 problems of type B, and 6 of 10 problems of type C. CO2- App (8)

Given that the student solved the problem, what is the probability that it was of type A?

13. Consider a fictional dataset that describes the weather conditions for playing a game of golf. Given the weather conditions, each tuple classifies the conditions as fit(“Yes”) or unfit(“No”) for playing golf. Design a Decision Tree classifier for the dataset and test the chance of playing golf if the weather condition today = (Sunny, Hot, Normal, False)

	<b>Outlook</b>	<b>Temperature</b>	<b>Humidity</b>	<b>Wind</b>	<b>Play Golf</b>
0	Rainy	Hot	High	False	No
1	Rainy	Hot	High	True	No
2	Overcast	Hot	High	False	Yes
3	Sunny	Mild	High	False	Yes
4	Sunny	Cool	Normal	False	Yes
5	Rainy	Cool	Normal	False	Yes
6	Overcast	Mild	High	True	Yes
7	Overcast	Hot	Normal	False	Yes
8	Sunny	Mild	High	True	No

14. Explain in detail, how the set of data be classified using simple perceptron. CO4- U (8)
15. Explain k-medoids clustering algorithm with example. CO5- U (8)