

# School of Business

MBA  
ETE - May 2023

Time : 3 Hours

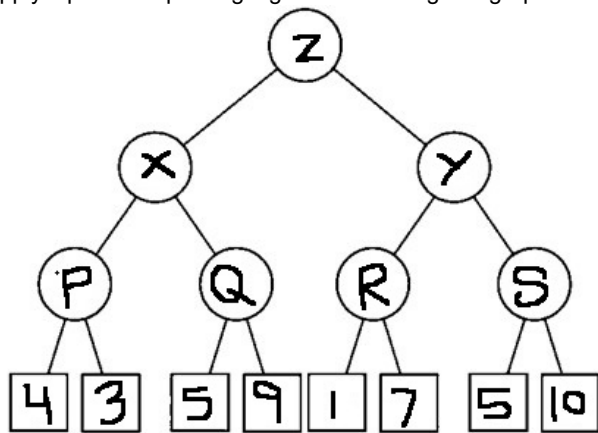
Marks : 50

## Sem IV - MSB21T2008 - AI for Managers

Your answer should be specific to the question asked

Draw neat labeled diagrams wherever necessary

1. Describe main components of an intelligent agent? K2 CO1 (2)
2. Discuss the state search Depth First Search with a diagram. K2 CO2 (2)
3. Analyze the importance of KR in Artificial Intelligence. K4 CO3 (2)
4. Illustrate the importance of Bayes theorem in view of artificial intelligence. K4 CO4 (2)
5. Compare the importance of Artificial Intelligence in the area of marketing and digital marketing. K4 CO5 (2)
6. Illustrate Robotics in the lens of Artificial Intelligence. K4 CO1 (5)
7. Apply alpha-beta pruning algorithm for the given graph K4 CO2 (5)



8. If an Artificial Neural Network (ANN) comprises of an input layer containing 10 neurons, a hidden layer consisting of 5 neurons, and an output layer that has 2 neurons, Evaluate the total number of weights in the network? K5 CO5 (6)
9. Select all the following sentences and convert them into FOL : K5 CO3 (8)
  - (i) Britania is a cake
  - (ii) Mansi is a child who takes Britania
  - (iii) Jayant loves child who takes cake
  - (iv) Durga is a queen
10. K5 CO4 (8)

A spam filter assigns probabilities to emails being spam or not spam and has a 90% accuracy in identifying spam emails and 95% accuracy in identifying non-spam emails. If the initial probability of an email being spam is 20%, Evaluate the probability that an email classified as spam by the filter is indeed spam?
11. Provide a comparison of the diverse areas where machine learning is applied? K6 CO5 (8)