24U3138 (Pages: 2) Name : .....

Reg. No : .....

THIRD SEMESTER UG DEGREE EXAMINATION, NOVEMBER 2025

(FYUGP)

CC24UCSC3MN202 - INTRODUCTION TO ARTIFICIAL INTELLIGENCE

(Computer Science - Minor Course)

(2024 Admission - Regular)

Time: 2.0 Hours Maximum: 70 Marks

Credit: 4

Part A (Short answer questions)

Answer ***all*** questions. Each question carries 3 marks.

1. Explain the major domains of Artificial Intelligence. [Level:2] [CO1]
2. Explain and write the Alpha-Beta pruning algorithm. [Level:2] [CO1]
3. Expalin Semantic Networks. [Level:2] [CO1]
4. Describe Back propogation. [Level:2] [CO2]
5. Describe main functionality of the Single layer perceptron. [Level:2] [CO2]
6. Explain the features of Scikit-learn. [Level:2] [CO3]
7. Explain the applications of Matplotlib. [Level:2] [CO3]
8. Describe the functions of Pandas. [Level:2] [CO3]
9. Discuss Keras with sample code. [Level:2] [CO3]
10. Explain classification. [Level:2] [CO4]

(Ceiling: 24 Marks)

Part B (Paragraph questions/Problem)

Answer ***all*** questions. Each question carries 6 marks.

11. Illustrate different categories of Machine Learning with real-world examples. [Level:2] [CO1]
12. Illustrate the concept and procedure of Simulated Annealing with an example. [Level:2] [CO1]
13. Illustrate the concept of Constraint Satisfaction Problem(CSPs). [Level:2] [CO1]
14. Describe about AI problems in your own words. [Level:2] [CO1]

15. Discuss the concept of an Artificial Neural Network (ANN) with its the key components. [Level:2] [CO2]

16. Explain the applications of Machine Learning. [Level:2] [CO4]

17. Explain the concept of clustering in unsupervised learning. [Level:2] [CO4]

18. Interpret the difference between machine learning and deep learning. [Level:2] [CO4]

(Ceiling: 36 Marks)

Part C (Essay questions)

Answer any ***one*** question. The question carries 10 marks.

19. Explain the Best First Search algorithm in detail with a example. [Level:2] [CO1]

20. Explain the concept of dimensionality reduction with PCA. [Level:2] [CO4]

(1 × 10 = 10 Marks)

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