

Code No: M156AA**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD****B. Tech III Year II Semester Examinations, July - 2023****AI APPLICATIONS****(Minor Program in Artificial Intelligence and Machine Learning)****Time: 3 Hours****Max. Marks: 75****Note:** i) Question paper consists of Part A, Part B.

ii) Part A is compulsory, which carries 25 marks. In Part A, Answer all questions.

iii) In Part B, Answer any one question from each unit. Each question carries 10 marks and may have a, b as sub questions.

PART – A**(25 Marks)**

- 1.a) Define NLP. [2]
- b) What are AI applications in Business? [3]
- c) Define emotion recognition system. [2]
- d) Explain about AI in customer support. [3]
- e) Define supply chain management. [2]
- f) Why RPA matters to the supply chain? Explain. [3]
- g) Define AI hardware. [2]
- h) What are benefits of AI in cyber security? [3]
- i) What is machine learning? [2]
- j) Explain about AI problems. [3]

PART – B**(50 Marks)**

- 2.a) What are NLP tasks and techniques? Explain in detail.
 - b) Distinguish between AI and quantum computing. [5+5]
- OR**
- 3.a) Write a brief history of NLP.
 - b) How artificial intelligence will transform businesses? [5+5]
- 4.a) Discuss about AI Emotion Recognition using human face.
 - b) Describe the potential role of AI-based predictive models in healthcare. [5+5]
- OR**
- 5.a) Explain a case study using clustering to analyze hedge fund returns.
 - b) Discuss about role of AI in investment decisions. [5+5]
6. Briefly explain top 5 RPA use cases in Supply Chain Management. [10]
- OR**
7. How RPA relates to the supply chain? Explain in detail. [10]

8. How is AI hardware different from regular hardware? Explain in detail. [10]

OR

9. Explain about creation of digital twin using modeling methods. [10]

10. Explain the following:

- a) Combined values of blockchain and AI
- b) AI ML in 5G.

[5+5]

OR

11. Explain the following:

- a) Role of AI in smart cities
- b) Improving public policy using ML.

[5+5]

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Use of Paper July/Aug-2023