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MBA
(SEM III) THEORY EXAMINATION 2023-24
AI AND ML FOR BUSINESS

TIME: 3HRS**M.MARKS: 100**

Note: 1. Attempt all Sections. If require any missing data; then choose suitably.

SECTION A**1. Attempt all questions in brief.**

| Q no. | Question | Marks | CO |
|-------|--|-------|----|
| a. | What is artificial intelligence? | 2 | 1 |
| b. | Define structured data. | 2 | 1 |
| c. | What is meta knowledge? | 2 | 2 |
| d. | Brief about linear regression. | 2 | 2 |
| e. | Explain the concept of decision trees. | 2 | 3 |
| f. | Give concept of DBSCAN. | 2 | 3 |
| g. | What is pooling in convolutional? | 2 | 4 |
| h. | What is hyperplane? | 2 | 4 |
| i. | Define reinforcement learning. | 2 | 5 |
| j. | Give concept of 1D and 2D layers. | 2 | 5 |

SECTION B**2. Attempt any three of the following:**

| | | | |
|----|---|----|---|
| a. | Discuss advantages and disadvantages of artificial intelligence. | 10 | 1 |
| b. | How supervised learning is helpful in making pricing decision in business? | 10 | 2 |
| c. | What is agglomerative hierarchical clustering? How the agglomerative hierarchical clustering works? | 10 | 3 |
| d. | Explain single layer perceptron with its working. | 10 | 4 |
| e. | Explain Q learning algorithm with example. | 10 | 5 |

SECTION C**3. Attempt any one part of the following:**

| | | | |
|----|---|----|---|
| a. | What is knowledge acquisition? Explain steps of knowledge acquisition process. | 10 | 1 |
| b. | What is artificial neural network? Describe the architecture of an artificial neural network. | 10 | 1 |

4. Attempt any one part of the following:

| | | | |
|----|---|----|---|
| a. | Discuss metrics for evaluating linear model in supervised learning. | 10 | 2 |
| b. | Explain the working model of supervised learning with example. | 10 | 2 |

5. Attempt any one part of the following:

| | | | |
|----|--|----|---|
| a. | What is clustering? Discuss most common areas of use of clustering techniques. | 10 | 3 |
| b. | Differentiate between linear and non-linear SVM. | 10 | 3 |

6. Attempt any one part of the following:

| | | | |
|----|---|----|---|
| a. | What is back propagation algorithm? How it works? | 10 | 4 |
| b. | Discuss components of convolutional neural network. | 10 | 4 |

7. Attempt any one part of the following:

| | | | |
|----|---|----|---|
| a. | Describe Markov Decision process. | 10 | 5 |
| b. | Explain applications areas of reinforcement learning. | 10 | 5 |