Code No.: AI702PC   R20   H.T.No. | | | 8 | R | | | | |

CMR ENGINEERING COLLEGE: : HYDERABAD
UGC AUTONOMOUS
IV–B.TECH–I–Semester End Examinations (Supply) – April - 2024
DEEP LEARNING
(CSM)

[Time: 3 Hours]   [Max. Marks: 70]

Note: This question paper contains two parts A and B.

     Part A is compulsory which carries 20 marks. Answer all questions in Part A.

     Part B consists of 5 Units. Answer any one full question from each unit. Each question carries 10 marks and may have a, b, c as sub questions.

PART-A   (20 Marks)

1. a) Differentiate Machine Learning and Deep learning.   [2M]
   b) Explain elements of Deep Learning?   [2M]
   c) What is Kohenen Self-Organizing Feature Map?   [2M]
   d) Define Fixed Weights Competitive Nets in deep learning.   [2M]
   e) List out various Back Propagation Networks.   [2M]
   f) What are various Activation Functions?   [2M]
   g) Define Parameter Norm Penalty.   [2M]
   h) Differentiate Boosting and Bagging.   [2M]
   i) What are various parameter initialization strategies?   [2M]
   j) Define Optimization Process in deep learning.   [2M]

PART-B   (50 Marks)

2. Compare and Contrast Single Layered Model and Multi Layered Perceptron Model.   [10M]

OR

3. Describe the Characteristics of Continuous Hopfield Memory and discuss how it can   [10M] be used to solve Traveling salesman Problem.

4. Define Maxnet? Explain the role of Maxnet in deep learning model with example.   [10M]

OR

5. Explain various Special Networks in deep learning.   [10M]

6. Give an example of learning XOR function to explain a fully functioning Feed   [10M] Forward Network.

OR

7. Explain in detail about the concept of Gradient Based Learning.   [10M]

8. What is Regularization? How Regularization helps in reducing Overfitting?   [10M]

OR

9. What is Early Stopping Meta-Algorithm? How is will help to find the best amount of   [10M] time to train the deep learning model.

10. Discuss the application of Second-Order Methods to the training of deep networks.   [10M]

OR

11. Explain various Optimization Strategies adopted in deep learning.   [10M]

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