Code No.: CS8251PE | R20 | H.T.No. | | | 8 | R | | | | | |

CMR ENGINEERING COLLEGE: : HYDERABAD
UGC AUTONOMOUS
II–M.TECH–I–Semester End Examinations (Regular) - Feb- 2022
DEEP LEARNING (PE-V)
(CSE)

[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) What is the significance of hidden units in Neural Network? [2M]
   b) Write short notes on Feed Forward Networks. [2M]
   c) What is semi-supervised learning? [2M]
   d) What is the dropout in deep learning? [2M]
   e) List out the challenges in Neural Network optimization. [2M]
   f) How learning differs from pure optimization? [2M]
   g) What is pooling? [2M]
   h) what is convolution operation in CNN? [2M]
   i) Write short notes on N-Gram dataset. [2M]
   j) Write short notes large scale deep learning model. [2M]

PART-B **(50 Marks)**

2. Illustrate gradient-based learning with suitable example. [10M]

OR

3. Explain feed -forward back propagation algorithm. [10M]

4. Illustrate the multi task learning through an example. [10M]

OR

5. What is dataset augmentation? Explain how it is useful to create new data points? [10M]

6. Explain adaptive learning rate methods in deep learning. [10M]

OR

7. Explain in detail about the approximate second order methods. [10M]

8. Illustrate the convolution neural networks with example. [10M]

OR

9. Discuss about the efficient convolution algorithms. [10M]

10. Explain how deep learning is used in computer vision. [10M]

OR

11. Explain the role of deep learning in speech recognition. [10M]

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