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**Question Paper Code:95Q13**

M.E. DEGREE EXAMINATION, MAY 2022

Elective

Computer Science and Engineering

19PCS513–DEEP LEARNING TECHNIQUES

(Regulation 2019)

Duration: Three hours

Maximum: 100 Marks

Answer ALL Questions

PART - A (5 x 20 = 100 Marks)

1. (a) Explain how regularization is applied in neural networks. CO1-U (20)  
Or  
(b) Explain the challenges in neural network optimization. CO1- U (20)
2. (a) Explain recurrent neural network. Also differentiate with feed forward neural network. CO1- U (20)  
Or  
(b) Write the differences between long term and temporal dependencies with suitable examples. CO1- U (20)
3. (a) Why inference and approximate inference is used in deep learning? Explain the various functionalities of it. CO3- U (20)  
Or  
(b) What is Linear Factor models and Auto encoders ? Discuss different kinds of auto encoders. CO3- U (20)
4. (a) Explain deep belief network and its types with examples. CO4- U (20)  
Or  
(b) Describe the operations of greedy algorithm in deep Boltzman machine. CO4- U (20)
5. (a) What do you mean by object recognition and computer vision? Illustrate any three applications CO5- App (20)  
Or  
(b) Explain information retrieval methodologies in detail and Discuss how it will help for effective information analysis in deep learning. CO5- App (20)

