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**Question Paper Code: U2912**

M.E. DEGREE EXAMINATION, NOV 2024

Professional Elective

M.E Computer Science and Engineering

21PCS512–DEEP LEARNING TECHNIQUES

(Regulations 2021)

Duration: Three hours

Maximum: 100 Marks

Answer ALL Questions

PART - A (5 x 20 = 100 Marks)

1. (a) How different algorithm plays vital role in classification? Explain it with examples. CO1-U (20)  
Or  
(b) What are the best practices in dimensionality reduction? Explain the techniques of dimensionality reduction in support vector machines. CO1-U (20)
2. (a) Explain the various activation functions used in deep learning algorithms CO1-U (20)  
Or  
(b) Write briefly about the function of a Convolutional Neural Network in detail. CO1-U (20)
3. (a) Describe briefly about Monte Carlo method and how it helps in deep learning. CO1-U (20)  
Or  
(b) Why Approximate Inference is used in deep learning? Explain the various functionalities of it. CO1-U (20)
4. (a) Write briefly about energy function and Illustrate the procedure for creating Boltzmann machine. CO1-U (20)  
Or  
(b) Describe briefly about various Boltzmann machine with example. CO1-U (20)

5. (a) Describe the steps needed to Measure the Performance of a Deep Learning Model with example. CO1-U (20)
- Or
- (b) Explain in detail how deep learning is applied in Natural Language Processing CO1-U (20)