Reg. No. :

Question Paper Code: U6E02

B.E./B.Tech. DEGREE EXAMINATION, NOV 2024

Sixth Semester

Artificial Intelligence & Data Science

21UAD602 - DEEP LEARNING

(Regulations 2021)

Duration: Three hours   Maximum: 100 Marks

Answer All Questions

PART A - (10 x 2 = 20 Marks)

1. List out the features of Deep Learning,   CO1-U

2. Define Tensors.   CO1-U

3. Give reason for the term "feed forward" used in the feed forward networks.   CO2-App

4. Define Optimizers.   CO1-U

5. Define Convolutional networks.   CO1-U

6. What is Recurrent Neural Networks?   CO1-U

7. Define feature extraction in deep learning.   CO1-U

8. Define Data preprocessing.   CO1-U

9. Predict the concept of gated RNNs.   CO1-U

10. Define overfitting.   CO1-U

PART – B (5 x 16= 80 Marks)

11. (a) Explain in detail about feed forward Neural networks.   CO1-U   (16)

Or

(b) Explain the following   CO1-U   (16)
     (i)   Learning rate(8)
     (ii) Regularization(8)

12. (a) Examine the L1 & L2 Regularization Sparsity techniques with   CO2-App   (16)
     suitable examples.

Or

(b) Apply the Back propagation learning Algorithm with examples.   CO2-App   (16)

13.	(a)	Discuss the building blocks of Deep Networks.	CO1-U	(16)
		Or		
	(b)	Draw and explain the Major architectures of Deep Networks	CO1-U	(16)
14.	(a)	Describe Max Pooling operations with suitable example.	CO3-Ana	(16)
		Or		
	(b)	Explain in detail about Dataset preprocessing techniques.	CO3-Ana	(16)
15.	(a)	Demonstrate building blocks of LSTM in neural networks.	CO1-U	(16)
		Or		
	(b)	Explain in detail about concrete LSTM example in Keras.	CO1-U	(16)

U6E02