BACHELOR OF TECHNOLOGY (CBCS) (2021-COURSE)
B. Tech. Sem - VI Computer Science & Engineering AI & ML : SUMMER : 2025
SUBJECT: DEEP LEARNING

Day : Thursday
Date : 22/05/2025

S-23971-2025

Time : 02:30 PM-05:30 PM
Max. Marks : 60

N.B.

1) All questions are **COMPULSORY**.
2) Figures to the right indicate **FULL** marks.
3) Assume suitable data if necessary.
4) Draw neat diagram **WHEREVER** necessary

Q.1	Explain the Gradient Descent and Stochastic Gradient Descent.	**(10)**
	OR	
	Explain Curse of dimensionality and linear regression.	**(10)**
Q.2	Describe the Boltzmann Machine in details.	**(10)**
	OR	
	Define Deep Learning and explain activation functions in detail.	**(10)**
Q.3	Draw and explain the architecture of Convolutional Neural Networks.	**(10)**
	OR	
	Describe RESNET architecture.	**(10)**
Q.4	What is Transfer learning? How does Transfer Learning Work and explain its Approaches to Transfer Learning.	**(10)**
	OR	
	Explain anyone Variants of CNN in detail.	**(10)**
Q.5	Explain Long Short-Term Memory. Give some famous applications of LSTM.	**(10)**
	OR	
	Describe Recurrent Neural Networks in detail.	**(10)**
Q.6	Write short notes:	**(10)**
	a) Encoders and Autoencoders	
	b) Deep Boltzmann Machine	
	OR	
	Explain the working of Generative Adversarial Networks.	**(10)**

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