

Code: 20IT6701

IV B.Tech - I Semester - Regular Examinations - DECEMBER 2023

**APPLICATIONS OF DEEP LEARNING
(HONORS in INFORMATION TECHNOLOGY)**

Duration: 3 hours

Max. Marks: 70

Note: 1. This paper contains questions from 5 units of Syllabus. Each unit carries 14 marks and have an internal choice of Questions.

2. All parts of Question must be answered in one place.

BL – Blooms Level

CO – Course Outcome

			BL	CO	Max. Marks
UNIT-I					
1	a)	What is deep learning? How is it different from traditional machine learning?	L2	CO1	7 M
	b)	Explain how Deep Learning is associated to Biological Inspiration?	L2	CO1	7 M
OR					
2	a)	Compare Deep Learning with Artificial Intelligence in various applications.	L2	CO2	7 M
	b)	Summarize the Common Architectural Principles of Deep Networks.	L2	CO2	7 M
UNIT-II					
3	a)	What are Auto encoders? Explain.	L2	CO2	7 M
	b)	Explain RBM with a neat Diagram.	L2	CO2	7 M
OR					
4	a)	Demonstrate Deep Belief Network with example.	L3	CO2	7 M

	b)	Demonstrate GAN to build a model.	L3	CO2	7 M
UNIT-III					
5	a)	Illustrate Convolution operation in Convolutional Neural Network.	L3	CO1	7 M
	b)	What is max pooling? Explain.	L3	CO1	7 M
OR					
6	a)	Demonstrate Variants of the Basic Convolution Function.	L3	CO4	7 M
	b)	Demonstrate Unsupervised Features of CNN.	L3	CO4	7 M
UNIT-IV					
7	a)	Illustrate Recurrent Neural Networks.	L3	CO3	7 M
	b)	Explain about Long Short-Term Memory.	L2	CO3	7 M
OR					
8	a)	Write short notes on Sequence-Sequence Architectures.	L2	CO1	7 M
	b)	Demonstrate how Recurrent Neural Networks are extended to Deep Recurrent Networks?	L3	CO1	7 M
UNIT-V					
9	a)	List the applications of deep learning in Natural language processing.	L2	CO3	7 M
	b)	Explain Speech recognition with real time example.	L2	CO3	7 M
OR					

10	a)	Explain how image segmentation is done using Computer Vision?	L3	CO3	7 M
	b)	Illustrate how TF/IDF is used to identify frequency of words in NLP?	L3	CO3	7 M