



R20 Regulation **Subject code:3E6EL**
TKR COLLEGE OF ENGINEERING AND TECHNOLOGY
(Autonomous, Accredited by NAAC with 'A+' Grade)

B.Tech VI Semester Supplementary Examinations, December 2024

Deep Learning
(CSE)

Maximum Marks: 70

Date:07.01.2025

Duration: 3 hours

- Note: 1. This question paper contains two parts A and B.
2. Part A is compulsory which carries 20 marks. Answer all questions in Part A.
3. Part B consists of 5 Units. Answer any one full question from each unit which carries 10M.
4. Each question carries 10 marks and may have a, b, c, d as sub questions.

Part-A

All the following questions carry equal marks (10X2M=20) Marks)		CO	Bloom Tx
1	Differentiate between AI, ML and DL.	1	L1
2	What are the advantages of Batch normalization?	1	L1
3	What is random weight initialization?	2	L1
4	What is a saddle point	2	L1
5	What is a bidirectional RNN	3	L1
6	What is model compression in solving deep learning applications	3	L1
7	What is transfer learning?	4	L1
8	What are two extreme forms of transfer learning?	4	L1
9	Describe model structure.	5	L1
10	What is unstructured modelling?	5	L1

Part-B

Answer All the following questions. (5X10M=50Marks)		CO	Bloom Tx
11	A) Illustrate learning XOR with an example. (5M) B) Explain Gradient Based Learning. (5M)	1	L2
OR			
12	A) Explain the Architecture design of neural networks. (5M) B) What are the salient features of DL that addresses the classical ML limitations (5M)	1	L2
13	Discuss how optimization is an extremely difficult task in deep learning. (10M)	2	L2
OR			
14	A) Write the motivation behind CNNs. (5M) B) Explain Pooling operation (5M)	2	L2
15	A) Explain Encoder-Decoder Sequence to Sequence architectures. (5M) B) Explain Recursive Neural Networks. (5M)	3	L2
OR			
16	Explain the following deep learning applications: A) Speech recognition (6M)	3	L2

	B) Recommender Systems (4M)		
17	A) Explain representational power, layer size and depth? (5M) B) Explain learning manifolds with Autoencoders? (5M)	4	L2
	OR		
18	Explain Transfer Learning and Domain Adaption? (10M)	4	L2
19	A) Explain converting between undirected and directed graphs? (5M) B) Explain factor graphs? (5M)	5	L2
	OR		
20	Explain the deep learning approach to structured probabilistic models? (10M)	5	L2