Register Number:……..

KUMARAGURU
college of technology
character is life

B.E/B.TECH DEGREE EXAMINATIONS: MAY 2023

(Regulation 2018)

First Semester

Information Technology

U18MAR0204: Deep Learning

COURSE OUTCOMES

CO1: Understanding the working of Neural Networks

CO2: Applying the deep learning concepts for real-time case studies

Time: Three Hours **Maximum Marks: 100**

Answer all the Questions:-
PART A (10 x 2 = 20 Marks)
(Answer not more than 40 words)

1.	Explain biological neural network and artificial neural network?	CO1	[K_2]
2.	What is bias?	CO1	[K_1]
3.	Write short notes on edge detection?	CO1	[K_1]
4.	List the importance of strides in CNN?	CO1	[K_2]
5.	What is an unfolded computational graph?	CO1	[K_2]
6.	Mention the performance metrics applicable for a Deep Learning system.	CO2	[K_2]
7.	Why do RNNs work better with text data?	CO2	[K_2]
8.	In a CNN, if the input size 5 X 5 and the filter size is 7 X 7, then what would be the size of the output?	CO2	[K_2]
9.	Mention the hyperparameters in building a model.	CO2	[K_2]
10.	Explain about fully connected layer in deep learning.	CO2	[K_2]

Answer any FIVE Questions:-
PART B (5 x 16 = 80 Marks)
(Answer not more than 400 words)

11.	a)	How Does Convolutional Neural Network work? Explain any four applications of CNN.	12	CO1	[K_2]
	b)	List the difference between Feed-Forward Neural Networks and Recurrent Neural Networks.	4	CO1	[K_2]
12.	a)	Explain the Stochastic Gradient Descent algorithm. How to choose the learning rate in the algorithm?		CO1	[K_2]

13.	a)	Write notes on the following architectures: LeNet, AlexNet	CO2	[K_2]
14.	a)	Discuss how to perform regularization for deep learning.	CO2	[K_2]
15.	a)	Explain gradient-descent optimization with an example.	CO2	[K_2]
16.	a)	How to build deep neural networks for face recognition, explain with an example.	CO2	[K_3]

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