



PRESIDENCY UNIVERSITY

BENGALURU

Roll No.														
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End - Term Examinations – May / June 2026

Date: 20- 05-2026

Time:01:00pm – 04:00pm

School: SOCSE	Program: B.Tech	
Course Code: ADS2510	Course Name: Deep Learning and Reinforcement Learning	
Semester: VI	Max Marks: 100	Weightage: 50%

CO - Levels	C01	C02	C03	C04
Marks	24	24	26	26

Instructions:

- (i) Read all questions carefully and answer accordingly.
- (ii) Do not write anything on the question paper other than roll number.

Part A

Answer ALL the Questions. Each question carries 2marks.

10Q x 2M=20M

1.	Differentiate between Deep Learning and Machine Learning	2 Marks	L1	C01
2.	What are activation functions why they are used in Deep neural networks	2 Marks	L1	C01
3.	Define Bias and Weights.	2 Marks	L1	C02
4.	What is Vanishing gradient problem	2 Marks	L1	C02
5.	List the key components of CNN	2 Marks	L1	C03
6.	Define unfolding and flattening	2 Marks	L1	C03
7.	Outline the advantages of RNN over CNN	2 Marks	L2	C03
8.	Define 'reward' and 'return' for an episodic task with an example for each	2 Marks	L1	C04
9.	Define the following a)Goal b)Action space	2 Marks	L1	C04
10.	Classify model based learning and model free learning	2 Marks	L2	C04

Part B

Answer the Questions.

Total Marks 80M

11.	a.	Explain the types of Activation Functions	10 Marks	L2	C01
	b.	Explain how to design a Deep Neural Networks stepwise	10 Marks	L2	C01
Or					
12.	a.	Discuss Multilayer Perceptron in detail	10 Marks	L2	C01
	b.	Explain loss function and its types	10 Marks	L2	C01
13.	a.	Summarize the concept of Regularization and Optimization	10 Marks	L2	C02
	b.	Describe Batch Normalization	10 Marks	L2	C02
Or					
14.	a.	Discuss Weight Initialization Techniques	10 Marks	L2	C02
	b.	Interpret the concept of Dropouts in Neural Networks	10 Marks	L2	C02
15.	a.	Illustrate the architecture of CNN	10 Marks	L2	C03
	b.	Contrast LSTM and GRU also explain the advantages of LSTM	10 Marks	L2	C03
Or					
16.	a.	Explain the architecture of RNN	10 Marks	L2	C03
	b.	Explain Deep pattern Recognition in Deep Learning and What are the their applications ?	10 Marks	L2	C03
17.	a.	Discuss stochastic environment and deterministic environment in RL with an example	10 Marks	L2	C04
	b.	Explain Value function and Q Function with an example each for deterministic Environment	10 Marks	L2	C04
Or					
18.	a.	Reinforcement Learning is a feedback based mechanism. Summarize with an example	10 Marks	L	C04
	b.	Compare Deterministic Policy and Stochastic Policy also list out the applications of Reinforcement Learning.	10 Marks	L	C04