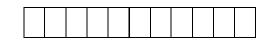
Register No.





SNS COLLEGE OF ENGINEERING

Kurumbapalayam (Po), Coimbatore – 641 107



AN AUTONOMOUS INSTITUTION

Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai

INTERNAL ASSESSMENT – III

Six Semester

B.Tech-Artificial Intelligence and Data Science

19AD602-DEEP LEARNING

Regulations 2019

Duration: 1 Hours 30 Minutes Session: FN		Date Maximum		04.2025 0 Marks		
		Answer ALL questions PART A - (5 X 2 = 10 marks)				
		Questions	Μ		CO BL	Company Name
1.	Define import	e generalization in the context of neural networks and explain why i cant.	t is 2	C	D-4 L-1	Meta
2.	How d a sequ	loes a Recurrent Neural Network Language Model predict the next ence?	word in 2	C	D-4 L-1	Apple
3.	What inetwor	is the purpose of a spatial transformer module in a convolutional ne rk?	ural 2	C	D-4 L-2	Google
4.	Compa output	are object detection and image classification in terms of functionali	ty and 2	C	D-5 L-2	Amazon
5.	-	ommon challenges encountered in face recognition systems.	2	C	D-5 L-2	Apple
		PART B - (2 X 13 = 26 marks)				
6.	(a)	Describe the working of WaveNet and its applications in speech synthesis. How does it differ from traditional audio generation mo OR	13 dels?	(CO- L-3	Tesla
	(b)	Explain the architecture and impact of ImageNet in deep learning. has it contributed to advancements in computer vision?	How 13	(CO- L-3	Apple
7.	(a)	(i) Analyze how regularization techniques improve generalization content classification models	in 5	(CO- L-4	Meta
		(ii) How can neural networks learn to apply spatial transformations to or feature maps in a differentiable manner? OR	o inputs 7	(CO- L-4	Google
	(b)	Explain Word2Vec in detail, including its two main models (CBO Skip-gram). How does it help in vector representation of words? PART C – $(1 \times 14 = 14 \text{ Marks})$	W and 13	(CO- L-3	Netflix
8.	(a)	How can a deep learning model be designed or enhanced to mainta accuracy in joint detection and analyze how simultaneous detection objects and actions improves understanding. What are the comput- trade-offs?	n of	. (CO- L-4	Facebook

(b) How can deep learning models be scaled to handle face recognition across millions of identities while ensuring low latency and high precision, especially in real-time applications like airport security or event access control?

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14 CO- L-4 Apple

OR