O.P.Code: 25CS5817	R25	H.T.No.									

SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR
(AUTONOMOUS)
M.Tech I Year II Semester Regular Examinations August-2026
GENERATIVE AI

Time: 3 Hours **Max. Marks: 60**

(Answer all Five Units **5 x 12 = 60** Marks)

UNIT-I

1	a	Discuss mathematical foundations of generative modeling.	CO1	L4	6M
	b	Evaluate role of data quality in generative models.	CO1	L2	6M
		OR			
2	a	Compare discriminative and generative models.	CO1	L3	6M
	b	What is a generative model? Give examples	CO1	L2	6M

UNIT-II

3		Compare RNN, LSTM, and Transformer models.	CO2	L4	12M
		OR			
4	a	Explain Transformer architecture in detail.	CO2	L3	6M
	b	Analyze encoder-decoder mechanism in VAE.	CO2	L2	6M

UNIT-III

5		Explain GPT architecture and working.	CO3	L4	12M
		OR			
6	a	Compare GPT and BERT architectures.	CO3	L2	6M
	b	Design a chatbot using GPT.	CO3	L3	6M

UNIT-IV

7		Evaluate collaboration techniques in multi-agent systems.	CO4	L3	12M
		OR			
8	a	Explain frameworks such as AutoGen, CrewAI, and Hugging GPT.	CO4	L4	6M
	b	Discuss the role of MAS in financial systems.	CO4	L2	6M

UNIT-V

9		Analyze multimodal generative AI systems and their architecture.	CO5	L3	12M
		OR			
10		Design a RAG-based knowledge retrieval system.	CO5	L4	12M

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