Roll No.												

PRESIDENCY UNIVERSITY

BENGALURU

Mid - Term Examinations – October 2025

Date: 28-10-2025 **Time:** 11.00am to 12.30pm

School: SOE/SOCSE	**Program:** B .Tech Computer Science Technology Big Data	
Course Code: CBD3414	**Course Name:** GENERATIVE AI AND LARGE LANGUAGE MODELS	
Semester: VII	**Max Marks**:50	**Weightage**: 25%

CO - Levels	**CO1**	**CO2**	**CO3**	**CO4**
Marks	**26**	**24**	**-**	**-**

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. **5Q x 2M=10M**

1	What is a Generative Model, and how does it differ from a Discriminative Model?	**2 Marks**	**L1**	**CO1**
2	Define Embeddings in Machine Learning and state one of their uses.	**2 Marks**	**L2**	**CO1**
3	What makes BERT embeddings different from Word2Vec embeddings?	**2 Marks**	**L1**	**CO1**
4	Explain why monitoring and periodic retraining is important after deploying a fine-tuned model.	**2 Marks**	**L2**	**CO2**
5	Mention two applications of GPT models.	**2 Marks**	**L1**	**CO2**

Part B

Answer the Questions. **Total Marks 40M**

6.	**a.**	Define Generative Artificial Intelligence. Explain the working principle of a generative model with examples.	**10 Marks**	**L2**	**CO1**
		Or			
7.	**a.**	Describe different types of tokenization methods (word-level, sub word-level, and character-level) with suitable examples.	**10 Marks**	**L2**	**CO1**

8.	**a.**	Explain the concept of Word2Vec. Describe in detail the CBOW and Skip-Gram models with suitable examples.	**10 Marks**	**L2**	**CO1**
		Or			
9.	**a.**	Explain the concept of Causal Language Modeling (CLM) and its importance in text generation models like GPT.	**10 Marks**	**L4**	**CO1**

10.	**a.**	Describe Encoder–Decoder Architecture and Working of Encoder Decoder Model.	**10 Marks**	**L2**	**CO2**
		Or			
11.	**a.**	What is fine-tuning in Transformer models? Describe the design and stages of a fine-tuning pipeline for generative AI applications.	**10 Marks**	**L3**	**CO2**

12.	**a.**	What is Masked Token Prediction? Describe the masked token prediction method in detail, give the exact step-by-step training workflow with an example.	**10 Marks**	**L3**	**CO2**
		Or			
13.	**a.**	Explain Decoder-Only Transformer Models. Describe their structure, working, and use cases in generative AI.	**10 Marks**	**L2**	**CO2**