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# PRESIDENCY UNIVERSITY

## BENGALURU

### Mid - Term Examinations – October 2025

**Date:** 27-10-2025

**Time:** 11.00am to 12.30pm

<b>School:</b> SOCSE/SOE	<b>Program:</b> B.Tech(CBC)	
<b>Course Code :</b> CBC3410	<b>Course Name:</b> GENERATIVE AI FOR BLOCKCHAIN APPLICATIONS	
<b>Semester:</b> VII	<b>Max Marks:</b> 50	<b>Weightage:</b> 25

<b>CO - Levels</b>	<b>CO1</b>	<b>CO2</b>	<b>CO3</b>	<b>CO4</b>	<b>CO5</b>
<b>Marks</b>	<b>24</b>	<b>26</b>	-	-	-

**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**

<b>1</b>	Define blockchain transaction?	<b>2 Marks</b>	<b>L1</b>	<b>CO1</b>
<b>2</b>	Define Generative AI and mention one of its key applications.	<b>2 Marks</b>	<b>L1</b>	<b>CO1</b>
<b>3</b>	What is the purpose of prompt engineering in blockchain-based AI applications?	<b>2 Marks</b>	<b>L2</b>	<b>CO2</b>
<b>4</b>	What is the significance of Creative Commons (CC) licensing on-chain?	<b>2 Marks</b>	<b>L2</b>	<b>CO2</b>
<b>5</b>	Explain content addressing in IPFS?	<b>2 Marks</b>	<b>L2</b>	<b>CO2</b>

## Part B

Answer the Questions.

Total Marks 40M

6.	a.	Describe the architecture of Generative Adversarial Networks (GANs) and explain how the generator and discriminator compete to produce realistic outputs.	10 Marks	L2	CO 1
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Or

7.	a.	Explain the working of Variational Autoencoders (VAEs).	10 Marks	L2	CO 1
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8.	a.	Discuss the process of Diffusion Models in generative AI.	10 Marks	L2	CO 1
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Or

9.	a.	Explain the structure and functionality of smart contracts in blockchain.	10 Marks	L2	CO 1
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10.	a.	Explain the architecture and key features of Ethereum.	10 Marks	L2	CO 2
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Or

11.	a.	Explain the architecture and key features of IPFS.	10 Marks	L2	CO 2
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12.	a.	Discuss the process of smart contract-driven art or music generation.	10 Marks	L2	CO 2
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Or

13.	a.	Explain the concept of AI-generated NFTs.	10 Marks	L2	CO 2
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