Roll No.

# PRESIDENCY UNIVERSITY

## BENGALURU

## Make Up Examinations – December 2025

**Date:** 26 – 12- 2025                                        **Time:** 1.00pm to 04.00pm

| **School:** SOCSE | **Program:** B.Tech CSE | |
|---|---|---|
| **Course Code:** CSE3343 | **Course Name:** Cloud Computing | |
| **Semester**: MK | **Max Marks**:100 | **Weightage**: 50% |

| CO - Levels | CO1 | CO2 | CO3 | CO4 | CO5 |
|---|---|---|---|---|---|
| **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.** | How does utility computing relate to the pay-as-you-go model? | 2 Marks | L1 | CO1 |
| **2.** | Name the four primary stakeholders in cloud computing as defined by NIST. | 2 Marks | L1 | CO1 |
| **3.** | What is the difference between a Type 1 and Type 2 hypervisor? | 2 Marks | L1 | CO2 |
| **4.** | State any two ways virtualization reduces IT costs. | 2 Marks | L1 | CO2 |
| **5.** | What does an SLA typically define between a cloud provider and consumer? | 2 Marks | L1 | CO3 |
| **6.** | What is the role of a Resource Agent in Cloud Usage Monitor? | 2 Marks | L1 | CO3 |
| **7.** | When is automated scaling typically used in cloud applications? | 2 Marks | L1 | CO3 |
| **8.** | What cloud service is typically used for launching virtual machines in AWS? | 2 Marks | L1 | CO4 |
| **9.** | What is the role of Identity Providers (IdPs) in cloud environments? | 2 Marks | L1 | CO4 |
| **10.** | Name any two-encryption technique used to secure remote access. | 2 Marks | L1 | CO4 |

# Part B

**Answer the Questions.**             **Total Marks 80M**

| 11. | a. | Explain the deployment models and their impact on the security, compliance, and flexibility of the cloud infrastructure. | **10 Marks** | **L2** | **CO1** |
|-----|----|----|----|----|----|
| | | **Or** | | | |
| 12. | a. | Compare IaaS, PaaS, and SaaS with respect to control, flexibility, and management responsibilities. Explain which service model would be ideal for small businesses and which for enterprise-level applications, justifying your reasoning. | **10 Marks** | **L2** | **CO1** |

| 13. | a. | Explain the evolution of cloud computing. How did traditional computing models lead to cloud development? | **10 Marks** | **L3** | **CO1** |
|-----|----|----|----|----|----|
| | | **Or** | | | |
| 14. | a. | Describe major computing platforms and technologies that enabled cloud computing. | **10 Marks** | **L3** | **CO1** |

| 15. | a. | Illustrate the taxonomy of virtualization in cloud computing. Discuss how each technique helps in achieving scalability and isolation. | **10 Marks** | **L2** | **CO2** |
|-----|----|----|----|----|----|
| | | **Or** | | | |
| 16. | a. | Describe the major types of virtualization techniques and compare them based on performance, isolation, and resource utilization. | **10 Marks** | **L2** | **CO2** |

| 17. | a. | Differentiate between full virtualization, para-virtualization, and hardware-assisted virtualization.. | **10 Marks** | **L3** | **CO2** |
|-----|----|----|----|----|----|
| | | **Or** | | | |
| 18. | a. | Describe the implementation levels of virtualization with examples. | **10 Marks** | **L3** | **CO2** |

| 19. | a. | Describe the concept of a ready-made environment in cloud computing. Explain how it benefits developers and organizations in accelerating deployment and reducing setup complexities. Provide suitable examples. | **10 Marks** | **L2** | **CO3** |
|-----|----|----|----|----|----|
| | | **Or** | | | |
| 20. | a. | Explain how Automated Scaling Listeners support cost optimization and service continuity in multi-cloud deployments. | **10 Marks** | **L2** | **CO3** |

| | | Provide detailed examples of its application in real-time cloud services. | | | |
|---|---|---|---|---|---|

| 21. | a. | Explain the concept of Logical Network Perimeter and its role in cloud security. | 10 Marks | L3 | CO3 |
|---|---|---|---|---|---|
| | | **Or** | | | |
| 22. | a. | Define SLAs in the context of cloud computing. Why are SLAs important between providers and consumers? | 10 Marks | L3 | CO3 |

| 23. | a. | What is Privileged Access Management (PAM)? Explain the best practices for implementing PAM in cloud environments, including risk mitigation strategies. | 10 Marks | L2 | CO4 |
|---|---|---|---|---|---|
| | | **Or** | | | |
| 24. | a. | Explain the Zero Trust Security Model in detail. How does it differ from traditional perimeter-based models, and what are its implications for cloud infrastructure security? | 10 Marks | L2 | CO4 |

| 25. | a. | Explain the role of Dockers and Containers in cloud-based application development | 10 Marks | L3 | CO4 |
|---|---|---|---|---|---|
| | | **Or** | | | |
| 26. | a. | Discuss the Cloud Haskell programming model. Apply it to demonstrate distributed computation in a cloud environment. | 10 Marks | L3 | CO4 |