Total No. of Questions: 04

Total No. of Printed Pages: 02

PRN No.	

PAPER CODE	U325-233 (ESE)

(AY:2024-25) May 2025 (ENDSEM) EXAM

TYB.TECH (SEMESTER - II)

COURSE NAME: CLOUD COMPUTING | **BRANCH: COMPUTER ENGG.** | **COURSE CODE: CSITUA32203**

T.Y.B.Tech PATTERN 2020R1

Time: [1Hr 30 Min] **[Max. Marks: 40]**

(*) Instructions to candidates:

1) **Figures to the right indicate full marks. Use of a scientific calculator is allowed.**
2) **Use suitable data wherever required.**
3) **All questions are compulsory. Solve any two sub-questions each from Questions 1, 2,3, and 4.**

Q. No.	Question Description	Max. Marks	CO mapped	BT Level
Q1	a) Interpret how AWS Simple Storage Service (S3) bucket's versioning feature impacts data integrity and recovery strategies in complex cloud-based architectures?	[5]	1	Understand
	b) Explain the following Linux commands in detail with examples: 1) ifconfig 2) copy 3) chmod 4) df 5) ssh-keygen	[5]	1	Understand
	c) Explain the 3 service models of cloud computing with a brief example for each service model.	[5]	1	Understand
Q2	a) Using Terraform, create a basic script to deploy a virtual machine on a cloud platform of your choice. Include the necessary configuration settings, such as instance type, security groups, and key pair. Explain how your Terraform script ensures the successful creation of the virtual machine.	[5]	2	Analyze
	b) Critically analyze the advantages of Terraform over other Infrastructure as Code (IaC) tools in terms of ease of use, scalability, and community support.	[5]	2	Analyze
	c) Demonstrate how you would use Terraform's module feature to ensure modularity and reusability in your deployment.	[5]	2	Analyze

Q3	a) Create a simple YAML file that defines a basic Ansible playbook to install a nginx package and stop a service on a remote server.	[5]	3	Apply
	b) Create a YAML file defining an Ansible inventory with three server groups: "web_servers," "mail_server" and "security_servers". Assign appropriate server hostnames and IP addresses to each group, along with group variables?	[5]	3	Apply
	c) Interpret the use of Ansible's agentless architecture and modules to design a scalable configuration management solution for a large, diverse network.	[5]	3	Apply
Q4	a) Explain how Kubernetes simplifies containerized Deployment.	[5]	4	Analyze
	b) Examine any two tools for the following phase of DevOps: 1) Development 2) Continuous Integration 3) Monitoring.	[5]	4	Analyze
	c) You are working as a DevOps engineer in ABC company. Your manager asked you to set up a CI/CD pipeline for a Node.js application that is running on an EC-2 server. Examine how to set up the CI/CD pipeline step-by-step with the associated tools that are required to do the above task.	[5]	4	Analyze