

Code: 23CS3602, 23IT3601

III B.Tech - II Semester - Regular Examinations – APRIL 2026**CLOUD COMPUTING**
(Common for CSE, IT)

Duration: 3 hours

Max. Marks: 70

- Note: 1. This question paper contains two Parts A and B.
 2. Part-A contains 10 short answer questions. Each Question carries 2 Marks.
 3. Part-B contains 5 essay questions with an internal choice from each unit. Each Question carries 10 marks.
 4. All parts of Question paper must be answered in one place.

BL – Blooms Level

CO – Course Outcome

PART – A

		BL	CO
1.a)	What is meant by Public Cloud?	L1	CO1
1.b)	Describe any two characteristics of cloud computing.	L2	CO1
1.c)	Distinguish parallel and distributed computing.	L2	CO1
1.d)	Describe about Service Oriented Architecture (SOA).	L2	CO1
1.e)	Explain Virtualization.	L2	CO1
1.f)	What is Amazon Elastic Container Service (ECS)?	L1	CO1
1.g)	Discuss about Economics of Cloud Computing.	L2	CO1
1.h)	Discuss Cloud Computing Challenges.	L2	CO1
1.i)	Identify any two benefits of DevOps.	L2	CO1
1.j)	What is Function-as-a-Service (FaaS)?	L1	CO1

PART – B

			BL	CO	Max. Marks
UNIT-I					
2	a)	Illustrate Cloud Computing Reference model with a neat diagram.	L3	CO1	5 M
	b)	Compare IaaS, PaaS, and SaaS in detail with examples and diagrams.	L3	CO1	5 M
OR					
3	a)	Use the role of Cloud Service Providers and compare the services offered by AWS, Azure, and Google App Engine.	L3	CO1	5 M
	b)	Illustrate Cloud Computing characteristics and explain its benefits.	L3	CO1	5 M
UNIT-II					
4		Demonstrate what is parallel processing and explain different hardware architectures used for parallel processing.	L3	CO2	10 M
OR					
5		Sketch and explain the significance of inter-process communication (IPC) with respect to distributed systems. Discuss how remote procedural call (RPC) enables inter-process communication.	L3	CO2	10 M

UNIT-III					
6	a)	Interpret and explain execution virtualization and the machine reference model used in virtualization.	L3	CO3	5 M
	b)	Illustrate how virtualization technologies contribute to the development and scalability of cloud computing platforms.	L3	CO3	5 M
OR					
7		Demonstrate container orchestration and explain the working of Docker Swarm and Kubernetes with neat diagrams.	L3	CO3	10 M
UNIT-IV					
8		Use the design of energy-efficient and green cloud computing architecture and discuss its components, environmental benefits.	L3	CO3	10 M
OR					
9	a)	Use the cloud federation stack and explain its levels in detail.	L3	CO3	5 M
	b)	Demonstrate the security issues in different cloud deployment models.	L3	CO3	5 M
UNIT-V					
10		Sketch the architecture of serverless computing and evaluate its effectiveness in handling scalable workloads.	L3	CO4	10 M

OR

11	a)	Discover how Edge Computing and Fog Computing improve the performance of IoT systems.	L3	CO4	5 M
	b)	Interpret the key applications of Quantum Cloud Computing.	L3	CO4	5 M