

2211000609030001
EXAMINATION NOVEMBER 2024
BACHELOR OF SCIENCE (INFORMATION TECHNOLOGY)
(MASTER OF SCIENCE (INFORMATION TECHNOLOGY) 5
YEAR INTEGRATED COURSE) (NINTH SEMESTER)
CLOUD COMPUTING - LEVEL 3

[Time: As Per Schedule]

[Max. Marks:70]

Instructions:

1. Fill up strictly the following details on your answer book

- a. Name of the Examination : **BACHELOR OF SCIENCE (INFORMATION TECHNOLOGY) (MASTER OF SCIENCE (INFORMATION TECHNOLOGY) 5 YEAR INTEGRATED COURSE) (NINTH SEMESTER)**
 - b. Name of the Subject : **CLOUD COMPUTING - LEVEL 3**
 - c. Subject Code No : **2211000609030001**
2. Sketch neat and labelled diagram wherever necessary.
 3. Figures to the right indicate full marks of the question.
 4. All questions are compulsory.

Seat No:

--	--	--	--	--	--

Student's Signature

Q.1 Attempt following questions: (Any Two)

14

- a) Write a brief note on types of virtualization. Explain any one in detail.
- b) What is container based computing? How is it different from virtualization base computing?
- c) List out cloud deployment models and explain that model in detail which fulfills maximum characteristics of cloud computing.

Q.2 Answer following questions. (Any Two)

14

- a) Write a note on usage of API gateways and CQRS in Micro-services Architecture.
- b) What is Kubernetes? Explain its working along with all its components.
- c) Write steps to deploy and execute database on docker. Also explain how to put it on kubernetes.

Q.3 Answer following in detail: (Any Two) 14

- a) Explain difference between RDS and DynamoDB services.
- b) Explain any one cloud service pricing model with example.
- c) What is Amazon Machine Image? How is it importance in cloud computing environment?

Q.4 Do as Directed 14

- a) Write a detail note on Cloud Data Center Architecture.
- b) Explain advantages of Micro-services architecture over the Monolithic Architecture.

Q.5 Answer following questions. (Any Two) 14

- a) Explain with suitable diagrams, How can we handle transaction in conventional enterprise applications and Micro-services architecture based application?
- b) Explain following terms with suitable example.
 - 1. Domain Services
 - 2. Bounded Context
 - 3. Entities
 - 4. Value Objects
 - 5. Aggregational Roots
- c) Write steps to create a micro-service application and its consumer client with a sample code and artifacts. Also explain how to deploy them on suitable platform?
