

Professional Course (Odd) Examination, 2025

(5th Semester)

BACHELOR OF COMPUTER APPLICATIONS**(Cloud Computing)**

(Elective—I)

Full Marks : 75

Time : 3 hours

*The figures in the margin indicate full marks for the questions***(PART : A—OBJECTIVE)**

(Marks : 25)

SECTION—I

(Marks : 15)

I. Tick (✓) the correct answer in the brackets provided : 1×10=10

1. Which of the following is a type of cloud computing service?
 - (a) Service-as-a-Software ()
 - (b) Computing-as-a-Service ()
 - (c) Software-as-a-Service ()
 - (d) Google-as-a-Drive ()

2. What is cloud computing?
 - (a) Cloud computing means providing services like storage, servers, database, networking, etc. ()
 - (b) Cloud computing means storing data in a database ()
 - (c) Cloud computing is a tool used to create an application ()
 - (d) None of the above ()

3. Applications and services that run on a distributed network using virtualized resources are known as
- (a) parallel computing ()
 - (b) soft computing ()
 - (c) distributed computing ()
 - (d) cloud computing ()
4. Point out the wrong statement.
- (a) Azure enables .NET framework applications to run over the Internet. ()
 - (b) Cloud computing has two distinct sets of models. ()
 - (c) Amazon has built a worldwide network of data centers to service its search engine. ()
 - (d) None of the above ()
5. Which of the following types of virtualization is also characteristic of cloud computing?
- (a) Storage ()
 - (b) Application ()
 - (c) CPU ()
 - (d) All of the above ()
6. Which of the following service providers provides the least amount of built-in security?
- (a) SaaS ()
 - (b) PaaS ()
 - (c) IaaS ()
 - (d) LaaS ()
7. Which of the following is storage data interchange interface for stored data objects?
- (a) OCC ()
 - (b) OCCI ()
 - (c) OCMI ()
 - (d) DBMS ()

8. Which of the following provides tools for managing Windows servers and desktops?

- (a) Microsoft System Center ()
- (b) System Service ()
- (c) System Cloud ()
- (d) Microsoft Windows ()

9. In which deployment model is the infrastructure shared among multiple organizations?

- (a) Private cloud ()
- (b) Community cloud ()
- (c) Public cloud ()
- (d) Hybrid cloud ()

10. Point out the wrong statement.

- (a) Cloud services span the gamut of computer applications. ()
- (b) The impact of cloud computing on network communication is to discourage the use of open-source network protocols in place of proprietary protocol. ()
- (c) Atom is a syndication format that allows for HTTP protocols to create and update informations. ()
- (d) All are correct ()

II. State whether the following statements are *True (T)* or *False (F)* by putting a Tick (✓) mark in the brackets provided :

1×5=5

1. Cloud computing is limited only to storage, processing and hosting.

(T / F)

2. Out of the deployment model of cloud computing is called hosting cloud.

(T / F)

3. Netflix can be considered as SaaS.

(T / F)

4. Threat is never a concern in cloud computing because it cannot be hacked.

(T / F)

5. Cost of cloud storage increases with the amount of storage space required.

(T / F)

SECTION—II

(Marks : 10)

III. Answer the following questions in short :

2×5=10

1. Why is cloud computing so popular nowadays?
2. Explain the advantages of private cloud over public cloud.
3. Briefly explain the data center technology used in cloud computing.
4. How do you design security in cloud computing environment?
5. Briefly explain the cloud usage monitoring.

(PART : B—DESCRIPTIVE)

(Marks : 50)

IV. Answer the following questions :

10×5=50

1. (a) Discuss the cloud computing concepts, applications and challenges. 5
(b) Contrast the web hosting environment in the dedicated hosting service provider versus cloud server. 5
- OR**
2. (a) Give detailed service delivery methods in cloud services. 5
(b) Explain how Platform-as-a-Service is provided in cloud technology. 5
 3. (a) How do you demarcate cloud services and other server services such as storage and web hosting? Explain with justification. 5
(b) Explain multitenant technology. 5

OR

4. (a) Discuss the security architecture and protocol design for cloud computing. 5
(b) What is virtualization? Explain. 5
5. (a) Discuss several threats and security concerns in cloud computing technology. 5
(b) Discuss how the resource management can be achieved for growing and shrinking of the number of customers in e-commerce system. 5

OR

6. (a) Discuss how storage system can be virtualized and managed in cloud computing. 5
(b) Identify the category of performers in the cloud computing ecology and explain their roles of each. 5
7. (a) Differentiate between Infrastructure-as-a-Service and Platform-as-a-Service with clearly explained examples. 5
(b) Write a short note on logical network perimeter and explain its applicability in cloud computing. 5

OR

8. (a) Identify and explain the various cloud infrastructure components. 5
(b) What is resource pooling architecture in cloud computing? Explain. 5
9. (a) Differentiate between conventional data center and cloud storage. 5
(b) Discuss the key concept differences of the terms 'cloud computing' and 'virtualization'. 5

OR

10. (a) What are microservices and their importances in the cloud? 5
(b) Explain how rate-limiting service can be applied in cloud environment to stabilize the services offered to several customers uniformly. 2
