



Avinashilingam Institute for Home Science and Higher Education for Women
Deemed to be University Estd. u/s 3 of UGC Act 1956, Category A by MHRD (now MoE)
Re-accredited with A++ Grade by NAAC. CGPA 3.65/4, Category I by UGC
Coimbatore - 641043, Tamil Nadu, India

Bachelor's Degree Examination - November 2025
V Semester

Class : III UG (2022 Batch Repeater)
Major : Computer Science

Time : 3 Hours
Max. Marks : 100

21BCSC22 Cloud Computing

Course Outcomes:

1. Understand the cloud computing paradigm and its importance.
2. Become familiar with cloud architecture and services and deployment models.
3. Become Familiar with Service Level Agreements and Cloud Storage.
4. Adequate knowledge on cloud security.
5. Explore some important cloud computing driven commercial systems

Part A

10 x 1 = 10

Choose the Correct Answer

1. Amazon Web Services (AWS) is an example of: CO1 K1
a. Private cloud b. Public cloud c. Hybrid cloud d. Community cloud
2. Which of these is *not* an advantage of cloud computing? CO1 K1
a. Scalability b. Improved collaboration
c. Guaranteed 100% uptime d. Reduced IT costs
3. PaaS is mainly used by: CO2 K1
a. End-users only
b. Developers for building and deploying applications
c. IT administrators for managing physical servers
d. Internet service providers
4. Which layer in cloud architecture is responsible for resource abstraction and virtualization? CO2 K1
a. SaaS Layer b. PaaS Layer c. IaaS Layer d. Application Layer
5. Vertical scaling refers to: CO3 K1
a. Adding more machines to the system
b. Increasing resources like CPU or RAM on a single machine
c. Scaling across multiple regions
d. Deploying multiple cloud services
6. Which cloud feature allows for real-time billing and tracking of service usage? CO3 K1
a. Elasticity b. Virtualization c. Metering d. Automation
7. Which protocol is commonly used to secure network-level communications in cloud computing? CO4 K1
a. HTTP b. FTP c. TLS/SSL d. SMTP
8. Which of the following is an authentication mechanism used in cloud computing? CO4 K1
a. CAPTCHA only b. Multi-factor authentication (MFA)
c. Only username-password pair d. File permissions
9. Amazon EC2 provides CO5 K1
a. Serverless computing environment b. Scalable virtual servers in the cloud
c. Database management only d. Software-only solutions
10. In Eucalyptus, the component that manages cloud resources is: CO5 K1
a. Walrus b. Cluster Controller c. Cloud Controller d. Node Controller

Part B

5 x 6 = 30

Answer ALL questions

Each answer should not exceed 400 words or two pages

- 11.a. Explain three limitations of cloud computing with examples. CO1 K2
(or)
- 11.b. Explain the role of cloud service providers with examples. CO1 K2
- 12.a. Write a short note on Infrastructure as a Service (IaaS) with examples CO2 K2
(or)
- 12.b. Explain the role of NIST in cloud computing architecture standardization. CO2 K2
- 13.a. Compare traditional scaling vs. cloud-based scaling. CO3 K3
(or)
- 13.b. Explain the role of real-time analytics in cloud billing systems. CO3 K3
- 14.a. Discuss data privacy issues in cloud storage systems. CO4 K2
(or)
- 14.b. Identify and explain three common authentication methods used in cloud services. CO4 K2
- 15.a. Discuss the role of Microsoft Azure Virtual Machines in cloud computing. CO5 K3
(or)
- 15.b. Write the steps to deploy an application on Google App Engine CO5 K3

Part C

5 x 12 = 60

Answer ALL questions

Each answer should not exceed 800 words or four pages

- 16.a. Differentiate public, private, hybrid, and community clouds with diagrams. CO1 K3
(or)
- 16.b. Discuss the relationship between virtualization and cloud computing, with examples of hypervisors. CO1 K3
- 17.a. Develop a use case scenario for hybrid cloud in enterprise-level solutions. CO2 K4
(or)
- 17.b. Examine the impact of cloud services on software development practices. CO2 K4
- 18.a. Discuss the role of automation in scaling and billing systems. CO3 K4
(or)
- 18.b. Evaluate the financial benefits of cloud scaling for small and medium-sized businesses. CO3 K4
- 19.a. Write a detailed report on multi-factor authentication and its role in strengthening cloud security. CO4 K3
(or)
- 19.b. Compare and contrast data privacy and data security, CO4 K3
- 20.a. Explain the complete architecture of Google App Engine with a neat diagram. CO5 K3
(or)
- 20.b. Explain the process of deploying a sample application in Microsoft Azure, step by step. CO5 K3
