



BRAINWARE UNIVERSITY

Library
Brainware University
398, Ramkrishnapur Road, Barasat
Kolkata, West Bengal-700125

Term End Examination 2024-2025
Programme – B.Tech.(CSE)-DS-2021/B.Tech.(CSE)-DS-2022
Course Name – Cloud Computing
Course Code - PEC-CSD501C
(Semester V)

Full Marks : 60

Time : 2:30 Hours

[The figure in the margin indicates full marks. Candidates are required to give their answers in their own words as far as practicable.]

Group-A

(Multiple Choice Type Question)

1 x 15=15

1. Choose the correct alternative from the following :

- (i) Select the term NIST represent is _____.
- | | |
|--|---|
| a) Network Infrastructure and Security Testing | b) National Institute of Standards and Technology |
| c) National Intelligence and Security Technology | d) New Information Systems Technology |
- (ii) State the full form of SLA.
- | | |
|----------------------------|-----------------------------|
| a) setup level agreement | b) Sale level agreement |
| c) Service level agreement | d) software level agreement |
- (iii) Identify the primary concern related to cloud computing.
- | | |
|--------------------------------|----------------------|
| a) Scalability | b) Cost Management |
| c) Data privacy and protection | d) Network Bandwidth |
- (iv) Recognize the cloud computing characteristic that allows users to automatically scale resources up or down based on demand.
- | | |
|---------------------|---------------------------|
| a) Rapid elasticity | b) On-demand self-service |
| c) Resource pooling | d) Measured service |
- (v) Express the primary goal of Inter Cloud computing.
- | | |
|--|--|
| a) Isolation of cloud services | b) Seamless integration and interoperability between different cloud providers |
| c) Limiting cloud access to specific users | d) Reducing cloud storage costs |
- (vi) Identify the programming languages those are supported by Google App Engine.
- | | |
|-------------------------|------------------------------|
| a) Python, Java, and Go | b) C++, Ruby, and PHP |
| c) Java, C#, and Swift | d) JavaScript, HTML, and CSS |

- (vii) Choose the purpose of Testing Under Control in cloud computing.
- a) To ensure software testing is conducted in a controlled environment.
 - b) To prevent unauthorized access to cloud services.
 - c) To monitor cloud server performance.
 - d) To test cloud-based applications under various conditions.
- (viii) Show the meaning of a cloud broker in the context of the cloud ecosystem
- a) An intermediary service that assists with cloud service selection and integration.
 - b) A cloud-based currency exchange platform.
 - c) A type of cloud-based social networking site.
 - d) A cloud-based customer relationship management tool.
- (ix) Choose the correct cloud application used for analyzing electrocardiogram data
- a) Satellite Image Processing
 - b) CRM and ERP
 - c) Social Networking
 - d) ECG Analysis in the Cloud
- (x) Identify the cloud application that is primarily used for managing business processes.
- a) Social Networking
 - b) CRM and ERP
 - c) ECG Analysis
 - d) Protein Structure Prediction
- (xi) Identify the primary goal of Market-Based Management in Cloud Computing.
- a) To reduce operational costs for cloud providers
 - b) To optimize resource allocation and pricing based on market demand
 - c) To enforce security policies across cloud environments
 - d) To manage customer relationships in the cloud market
- (xii) Identify the key component of the Cloud Federation Stack that handles data management across multiple clouds.
- a) Identity Management
 - b) Service Orchestration
 - c) Data Fabric
 - d) Network Management
- (xiii) Choose the correct characteristic of Federated Clouds.
- a) Managed by a single provider
 - b) Involves the collaboration of multiple cloud providers
 - c) Limited to private organizations
 - d) Requires specialized hardware for implementation
- (xiv) Select the service model in the cloud reference model that provides developers with tools to build, deploy, and manage applications.
- a) Infrastructure as a Service (IaaS)
 - b) Platform as a Service (PaaS)
 - c) Software as a Service (SaaS)
 - d) Networking as a Service (NaaS)
- (xv) Select the primary use of Cloud Analytics in businesses.
- a) Managing virtual desktops
 - b) Automating business processes
 - c) Analyzing large datasets to derive actionable insights
 - d) Providing cloud storage solutions

Group-B

(Short Answer Type Questions)

3 x 5=15

2. Discuss the significance of resource pooling in cloud computing. (3)
3. Recall the concept of multi-tenancy in cloud computing. (3)
4. Explain Cloud Analytics. (3)
5. Represent how is Policy Implementation crucial in cloud security? (3)
6. Justify the significance of standards such as OAuth and OpenID Connect in Cloud Federation. (3)

OR

Review the role of API (Application Programming Interface) standardization in Cloud Federation. (3)

Group-C
(Long Answer Type Questions)

5 x 6=30

7. Inspect the advantages and challenges associated with implementing Market-Based Management of Clouds. (5)
8. Explain Cloud Governance, and its importance in cloud computing. (5)
9. Illustrate the benefits of Virtualization technology in cloud computing. (5)
10. Develop the impact of cloud computing on data security and privacy. (5)
11. Explain Virtual SAN (VSAN). (5)
12. Revise the role of Third Party Cloud Services in enhancing the security and functionality of cloud-based applications. (5)

OR

Develop the concept of Cloud Bursting and its significance in cloud computing. (5)
