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BRAINWARE UNIVERSITY

Term End Examination 2025-2026
Programme – B.Tech.(CSE)-DS-2021/B.Tech.(CSE)-DS-2022/B.Tech.(CSE)-AIML-2023/B.Tech.(CSE)-DS-2023/B.Tech.(CSE)-2023
Course Name – Cloud Computing
Course Code - PEC-CSD501C/PEC-CSM501C/PEC-CSG501C
(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) Give an example of PaaS Cloud service.

a) Heroku b) AWS Elastic Beanstalk
c) Windows Azure d) All of these

(ii) State the following that can be identified as cloud.

a) Web application b) Hadoop
c) Intranet d) All of these

(iii) Identify an internal cloud is

a) An overhanging threat b) A career risk for a CIO
c) A cloud that sits behind a corporate firewall d) The group of knowledge workers who use a social network for water cooler gossip

(iv) Select the description of Market-Based Management (MBM) in cloud computing.

a) A pricing strategy for cloud services b) A management approach for cloud resources based on economic principles
c) A security protocol for cloud data d) A networking technique for cloud communication

(v) Represent the concept of the Cloud Federation Stack.

a) A stack of cloud computing hardware b) A set of protocols and APIs enabling federation and interoperability between clouds
c) A security protocol for cloud networks d) A cloud service management tool

(vi) Identify a common cloud-based file sharing service.

a) Dropbox b) Adobe Acrobat
c) MS Powerpoint d) None of these

(vii) Identify the meaning of Scalability in cloud computing.

a) The ability to handle increasing workloads. b) The size of a cloud data center.

c) The cost of cloud services. d) The speed of internet connection.

(viii) Predict the meaning of the term Cloud Ecosystem.

a) A group of clouds in the sky. b) Interconnected components and services that work together in the cloud.

c) A type of cloud service model. d) Cloud-based weather prediction systems.

(ix) Recognize the purpose of asset management in cloud computing.

a) Managing financial assets of a cloud provider. b) Managing and tracking physical and virtual assets in the cloud.

c) Managing cloud governance policies. d) Managing cloud security protocols.

(x) Identify the goal of High Availability in cloud computing.

a) Minimizing cloud storage costs. b) Ensuring applications and services are accessible with minimal downtime.

c) Maximizing energy efficiency in data centers. d) Limiting the number of users accessing the cloud.

(xi) Express the primary benefits of virtualization technology.

a) Increased physical space requirements. b) Decreased flexibility in resource allocation.

c) Improved hardware utilization and resource efficiency. d) Reduced data transfer speeds.

(xii) Distinguish the purpose that Virtualization Security Management primarily deals with.

a) Managing Virtual Reality Devices b) Securing Virtual Machines

c) Cloud Network Optimization d) Cloud Resource Allocation

(xiii) Trace the principle of Defense in Depth emphasize in Cloud Security.

a) Using Multiple Security Layers b) Building Strong Perimeter Defense Only

c) Focusing Solely on Encryption d) Ignoring Security Protocols

(xiv) Identify the characteristic of cloud computing that allows users to provision computing resources without human intervention.

a) Broad Network Access b) Rapid Elasticity

c) On-Demand Self-Service d) Resource Pooling

(xv) Choose the correct description of a Hybrid Cloud environment.

a) A cloud environment that is dedicated to a single organization. b) A cloud environment that combines both public and private clouds.

c) A cloud environment shared by multiple organizations with similar needs. d) A cloud environment that is entirely public and accessible to everyone.

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Group-B

(Short Answer Type Questions) 3 x 5=15

2. State ways cloud computing transforms traditional computing paradigms. (3)
3. Explain the concept of Cloud Federation in cloud computing. (3)
4. Explain Cloud Business Process Management (BPM)? (3)
5. Illustrate the impact of cloud service management on performance and SLA adherence. (3)
6. Examine the strategies used by cloud service providers (CSPs) to guarantee the physical security of data centers. (3)

OR

Examine the relationship between virtualization and high availability in cloud environments (3)

Group-C

(Long Answer Type Questions) 5 x 6=30

7. Analyze the advantages and limitations of server virtualization in cloud environments. (5)
8. Explain the concept of Provisioning in cloud computing. (5)
9. Discuss the Concepts of MapReduce and its significance in cloud computing. (5)
10. Illustrate the concept of multi factor authentication (MFA). (5)

11. Examine the role of the Cloud Federation Stack in enhancing resource management and scalability across multiple cloud platforms. (5)
12. Evaluate the security challenges introduced by multi-tenancy in public clouds. (5)

OR

Evaluate the risk vs. benefit of storing sensitive data on public cloud platforms. (5)

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