BRAINWARE UNIVERSITY

Term End Examination 2024-2025
Programme – B.Tech.(CSE)-AIML-2021/B.Tech.(CSE)-AIML-2022
Course Name – Cloud Computing
Course Code - PEC-CSM501C
(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) Identify which of the following is an essential concept related to Cloud.

a) Reliability   b) Availability
c) Abstraction   d) Productivity

(ii) State which of the following can be identified as cloud?

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

(iii) Select which of the following is known as a virtual version of computing resources.

a) Real machine   b) Cloud machine
c) Virtual machine   d) None of these

(iv) Select the transparency that enables accessing local and remote resources using identical operations

a) Concurrency Transparency   b) Migration Transparency
c) Access Transparency   d) Scaling Transparency

(v) Select the dynamic connection that grows into dynamic networks of networks

a) Cyber cycle   b) IoT
c) Cyber-physical systems   d) Multithreading

(vi) Recall the architecture in which no special machines manage network resources is known as

a) Peer-to-Peer   b) Master-slave
c) Tightly-coupled   d) Losely-coupled

(vii) Select the most important feature of cloud storage listed below

a) Bare file   b) Logon authentication

c) Multiplatform support   d) Adequate bandwidth

(viii) Associate random writes into files in GFS (Google File System) are_____

    a) Frequent   b) Very frequent
    c) Very less   d) None of these

(ix) Indicate , In GFS (Google File System) files are divided in _____ chunks.

    a) Variable size   b) Fixed size
    c) Both fixed and variable sized chunks   d) None of these

(x) Distinguish what does Virtualization Security Management primarily deal with?

    a) Managing Virtual Reality Devices   b) Securing Virtual Machines
    c) Cloud Network Optimization   d) Cloud Resource Allocation

(xi) Identify the role of Cloud Computing Security Architecture in Cloud Computing.

    a) Ensuring Cloud Service Availability   b) Designing User Interfaces
    c) Managing Cloud Costs   d) Defining Security Policies and Controls

(xii) Predict which security principle involves verifying the user's identity and granting appropriate access privileges?

    a) Authorization   b) Authentication
    c) Encryption   d) Integrity

(xiii) State which these is NOT typically associated with cloud computing

    a) Blockchain   b) Virtualization
    c) Serverless computing   d) Containers

(xiv) Identify the right exapnsion of SaaS in the context of cloud computing.

    a) Software as a Service   b) System as a Solution
    c) Storage as a Service   d) Server as a Service

(xv) State which cloud deployment model provides resources to a single organization.

    a) Private Cloud   b) Public Cloud
    c) Hybrid Cloud   d) Community Cloud

Group-B
(Short Answer Type Questions)   3 x 5=15

2. Discuss the features of Google App Engine.   (3)
3. Explain the different web service components.   (3)
4. Examine the role of API in cloud computing.   (3)
5. Illustrate the major challenges in Cloud Computing Security.   (3)
6. Analyze the benefits and challenges of Cloud Security Automation.   (3)

OR

Explain the concept of Zero Trust Security in Cloud Computing.   (3)

Group-C
(Long Answer Type Questions)   5 x 6=30

7. State the features of fog computing.   (5)
8. Differentiate Private cloud from Public cloud.   (5)
9. Analyze the role of Hadoop clusters.   (5)
10. State the role of hypervisor.   (5)
11. Summarize the usages of fog computing.   (5)
12. Assess the need for a hypervisor in cloud environment.   (5)

OR

Justify the need for High Availability for Real-time Applications and how to achieve the same (5) in cloud environment.

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