



BRAINWARE UNIVERSITY

Term End Examination 2023

Programme – B.Tech.(CSE)-2018/B.Tech.(CSE)-2019

Course Name – Cloud Security

Course Code - PEC-701B

(Semester VII)

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Barasat, Kolkata -700125

Full Marks : 70

Time : 3:0 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) Write the option in which an architecture in which no special machines manage network resources is known as
- a) Space-Based
b) Tightly-Coupled
c) Loosely-Coupled
d) Peer-to-Peer
- (ii) Write the option in which transparency that allows movement of resources and clients within a system is called
- a) Concurrency Transparency
b) Performance Transparency
c) Replication Transparency
d) Mobility Transparency
- (iii) Write the option in which all cloud computing applications suffer from the inherent _____ that is intrinsic in their WAN connectivity.
- a) Propagation
b) Latency
c) Noise
d) None of these
- (iv) Select from the following option in Which billing model is based on the packaging of computing resources (i.e. computation and storage) and the amount of those resources used?
- a) Metered
b) Subscription
c) Recurring
d) Per user based
- (v) Choose the option in Which of the following is the operational domain of CSA?
- a) Scalability
b) Portability and interoperability
c) Flexibility
d) None of these
- (vi) Select the option in which _____ enables batch processing, which greatly speeds up high-processing applications.
- a) Scalability
b) Elasticity
c) Reliability
d) Utility
- (vii) Select the option in which an operating system running on a Type _____ VM is full virtualization.

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- a) 1
c) 3
- b) 2
d) All of these
- (viii) Select the option in which of the following is the most widely used technique for abstraction?
- a) Load balancing
c) Load scaling
- b) Load scheduling
d) All of these
- (ix) Write the option in which a company needs to provide IT services to a worldwide customer base utilizing a diverse set of devices. Which attribute of cloud computing can help the company deliver such services?
- a) Pervasiveness
c) Vertical scaling of application servers
- b) Flexible pricing
d) Horizontal scaling of application servers
- (x) Select from the following option in which of the following is Type 2 VM?
- a) VirtualLogix VLX
c) Xen
- b) VMware ESX
d) LynxSecure
- (xi) Select the option in which of the following is also referred to edge computing?
- a) CloudWatch
c) CloudSpot
- b) CloudFront
d) CloudWave
- (xii) Choose the option in which applications that work with cloud computing that have low margins and usually low risk are _____
- a) High touch
c) Moderate touch
- b) Low touch
d) None of these
- (xiii) Select from the following option, What is the definition of provisioning as an automated process related to cloud computing?
- a) It moves data from one cloud to another
c) It adds security constraints to a cloud environment
- b) It provides server consolidation capability
d) It handles computing resource management processes
- (xiv) Select What is a common design element often found in cloud architectures?
- a) Single tiered
c) Synchronous web services
- b) Terminal emulators
d) Asynchronous web services
- (xv) Write the option in which a dynamic connection that grows into dynamic networks of networks, is called
- a) Cyber Cycle
c) Cyber-Physical System
- b) Internet of Things
d) Multithreading

Group-B

(Short Answer Type Questions)

3 x 5=15

2. Describe briefly about Reservations with VM. Illustrate Amazon elastic Compute Cloud(EC2). (3)
3. Evaluate Data Migration and which type of best practices should be used to protect data during a migration? (3)
4. Write what do you mean by VM migration ? Explain (3)
5. What is virtual desktop infrastructure? Explain (3)
6. Show the design of amazon VPC. (3)

OR

Express the role of security groups and NACL in amazon VPC. (3)

Group-C

(Long Answer Type Questions)

5 x 8=40

7. Enumerate the functions of VPN. (5)
8. Explain the CIA model of cloud security. (5)
9. State what do you mean by role-based access control ? (5)

- 10. How authentication is different from authorization in a cloud computing environment ? (5)
- 11. Classify the functionalities of Amazon S3 (5)
- 12. Devise the different levels of infrastructure security. (5)
- 13. Access DoS attack in cloud computing ? (5)

OR

- Assess the role of Hypervisor in cloud computing and their types. (5)
- 14. Express the challenges of SaaS Paradigm (5)

OR

- What roles does trust mechanisms play in a cloud environment ? (5)

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