

KATHMANDU UNIVERSITY
End Semester Examination [C]
May/June, 2019

Marks Scored:

Level : B.E./B.Sc.
Year : IV

Course : COMP 478
Semester: I

Exam Roll No. :

Time: 30 mins.

F. M. : 10

Registration No.:

Date 03 JUN 2019

SECTION "A"

[20Q. × 0.5 = 10 marks]

Choose and encircle the most appropriate answer.

1. The major benefit in implementing IoT in cloud is _____.
 - a. Security and Privacy
 - b. Unlimited storage
 - c. Unlimited computing capability
 - d. Pay as you use
2. What is Data-Lock- In in Cloud Computing?
 - a. Opportunity
 - b. Attributes
 - c. Property
 - d. Obstacle
3. Clients can communicate with cloud services by:
 - a. Web interface
 - b. APIs
 - c. Both interface and APIs
 - d. Web links
4. A guest software runs in their own isolated domains in
 - a. Full Virtualization
 - b. Paravirtualization
 - c. Emulation Virtualization
 - d. Simulation
5. Identity management job in Openstack is managed by _____ component.
 - a. Horizon
 - b. Identity Manager
 - c. Keystone
 - d. Compute node
6. What is a collection of interconnected stand-alone computers which can work together collectively and cooperatively as a single integrated computing resource pool?
 - a. Grid Computing
 - b. Cluster Computing
 - c. Parallel Computing
 - d. Distributed Computing
7. Which of the following is true for private cloud?
 - a. Higher Elasticity and availability
 - b. Higher Computing capability
 - c. Dedicated Server
 - d. Higher privacy and security
8. Salesforce.com provides service as _____ model.
 - a. Public cloud
 - b. SaaS
 - c. PaaS
 - d. IaaS
9. What is Security Mechanism?
 - a. A service that enhances the security of data processing systems and information transfers.
 - b. A security service makes use of one or more security mechanisms.
 - c. Any action that compromises the security of information.
 - d. An action that is designed to detect, prevent, or recover from a security attack.
10. What is grid computing?
 - a. It is parallel and distributed computing where computer infrastructure is offered as a service.
 - b. It is parallel computing where autonomous computers act together to perform very large tasks.
 - c. It is distributed computing where autonomous computers perform independent tasks.
 - d. It is interconnected computing where a computing platform is delivered to consumers.

11. Storage and network is accessible by cloud user in _____.
 - a. SaaS
 - b. PaaS
 - c. IaaS
 - d. Network as a Service
12. Which statement is true about the Platform as a Service cloud computing delivery model?
 - a. It is required by the infrastructure as a service delivery model so that end user applications can be delivered on the cloud.
 - b. It provides a runtime environment for applications and includes a set of basic services such as storage and databases.
 - c. It provides a virtual machine and storage so that computing platforms can be created.
 - d. It provides the entire infrastructure along with a completed application that is accessible using a web based front end.
13. What is an advantage of a multitenancy cloud environment over a single tenancy environment?
 - a. Higher data security
 - b. Easy to customize
 - c. Faster performance
 - d. Cost savings
14. One of the first computer controlled telephone exchange was designed for less than two hours of downtime over its lifetime of 40 years. What is the availability of the system?
 - a. 99.9996%
 - b. 99.994%
 - c. 99.9994%
 - d. 99.996%
15. The failure rate of any system is steady during _____.
 - a. Early Life Region
 - b. Wear-out Region
 - c. Before Early Life Region
 - d. Between Early life and Wear out Region
16. Which of the following is probable solution for the loss of trust in cloud?
 - a. Policy and regulation
 - b. Private Cloud
 - c. Strong Separation
 - d. Tack back control
17. Which of the following cloud vendor focuses on security?
 - a. Cloudhost
 - b. Slicehost
 - c. Firehost
 - d. Securehost
18. Communication between web services is done widely using _____ protocols.
 - a. SOAP
 - b. REST
 - c. RESTful
 - d. JSON
19. Which is the most popular NoSQL database for scalable big data store with Hadoop?
 - a. Hbase
 - b. MongoDB
 - c. Casandra
 - d. Postgres
20. Which of the following is not a cloud deployment model?
 - a. Community Cloud
 - b. Hybrid Cloud
 - c. Internal Cloud
 - d. Infrastructure Cloud

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SECTION "B"

[6Q. × 4 = 24 marks]

Attempt *ANY SIX* questions.

1. Discuss in brief about the virtualization and its different types. How does virtualization play vital role in cloud computing? [3+1]
2. Write in brief about deployment models of cloud. Explain the scenario about applicability of different cloud models. [2+2]
3. What are the advantages of private cloud over public cloud and vice versa?
4. What are the major factors that need to be considered for implementing SOA in cloud services? Explain in brief.
5. A startup company needs huge amount of storage to provide service to its clients. The company has limited capital cost to develop and host services. Which service model may benefit the company? Justify your statement.
6. Explain in brief about quantifying dependability of cloud services? Write major techniques to enhance cloud dependability. [2+2]
7. Write short notes on: (*ANY TWO*) [2+2]
 - a. Hadoop Distributed File System
 - b. Web Service Protocols
 - c. Hypervisor

SECTION "C"

[2Q. × 8 = 16 marks]

Attempt *ANY TWO* questions.

8. Write in brief about features of cloud computing. What are the challenges and opportunities of implementing cloud computing in a developing country like Nepal? [4+4]
9. What are the security and privacy issues prevailing in cloud computing? Discuss in brief about the probable solutions. [4+4]
10. Discuss in brief about service model of cloud computing. Discuss in brief about significance of implement IoT through cloud. [4+4]

