

قسم علوم الحاسب - جامعة القاهرة

صفحة 2

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Cairo University
Faculty of Computers and Information

33

Final Term Exam



Name: Selected Topic 1(Cloud Computing)

Date: 21/7/2020

Code: CS495

Duration: 1.5 hours

Lecturer(s): Prof. Fatma Omara

Total Marks: 80

Answer The Following Questions

Question 1: Complete the following statements

[50 marks]

Which of the following is not a cloud stakeholder?

- a. Cloud providers
- b. Clients
- c. End users
- d. Cloud users

_____ is the technology integrates Cloud Computing with Mobile environment.

- a. Ad hoc Computing
- b. Edge Computing
- c. Virtualization
- d. Mobile Cloud Computing

_____ refers to the interaction and communication between machines to produce and exchange data

- a. Big Data
- b. Consolidation
- c. Internet of Things
- d. Migration

In Cloud Computing, ----- concerns about resource discovery and selection

- a. Scheduling
- b. Provisioning
- c. Monitoring
- d. All the above

- 5- Migration is the process of moving a VM from.....
- a. One host server to another
 - b. Storage location to another
 - c. one data center to another
 - d. All the above
- 6- _____ is the abstraction of a single computer hardware into several VM
- a. Horizontal Virtualization
 - b. Vertical Virtualization
 - c. X-Y Virtualization
 - d. Not all the above
- 7- _____ is a cloud service provided to the business users to complete their business tasks
- a. SaaS
 - b. PaaS
 - c. IaaS
 - d. CaaS
- 8- _____ is a cloud service provided to the users to complete their tasks by accessing and running functions on the user premises
- a. SaaS
 - b. PaaS
 - c. IaaS
 - d. Attached Service
- 9- _____ is a collection of organizations have the same aims constructed dynamically to share data
- a. P2P
 - b. Cluster Computing
 - c. Grid Computing
 - d. Virtual Organization

_____ is a combination of heterogeneous, hierarchical, and distributed computing resources

- a. Grid
- b. Cloud
- c. Clusters
- d. Jungle Computing

_____ is a technique for transferring VM execution to an optimal offload site as users move

- a. Cloudlet
- b. Virtual organization
- c. VM handoff
- d. VM Synthesis

↓ In this type of cloud, the cloud is composed of multiple internal or external clouds.

- a. Private
- b. Public
- c. Multi-Cloud
- d. Hybrid

↓ Which of the following type of virtualization is also characteristic of cloud computing?

- a. Storage
- b. Application
- c. CPU
- d. All of the Above

↓ Which of the following is the operational domain of Cloud Computing?

- a. Scalability
- b. Portability and interoperability
- c. Flexibility
- d. All the above

- 15- Which of the following computing emphasizes proximity to end user? 2
- a. Mist computing
 - b. Cloud Computing
 - c. Grid computing
 - d. Fog computing
- 16- Which computing can be heavy weight and dense form of computing power?
- a. Mobile Cloud Computing
 - b. Fog computing
 - c. Ad Hoc computing
 - d. Cloud Computing
- 17- Where does Fog computing reside in a company's network?
- a. At remote servers
 - b. In the Cloud
 - c. In a local network
 - d. At the edge
- 18- What are characteristics of distributed system?
- a. Its users, servers and storage devices are dispersed
 - b. Service activity is not carried out across the network
 - c. They have single centralized data repository
 - d. There are multiple dependent storage devices
- 19- When the virtual machine manager (VMM) is directly installed on the hardware system is known as -----
- a. Hardware virtualization
 - b. Operating system Virtualization
 - c. Server Virtualization.
 - d. Storage Virtualization
- 20- In distributed system each processor has its own
- a. Local Memory
 - b. Clock
 - c. Both Local Memory and Clock
 - d. None of the above

ser?

21- The benefits of the Cloud Computing is to

- a. Reduce operational costs while increasing the effectiveness of IT processes
- b. Fast application implementation and deployment
- c. Move from Capex to Opex
- d. All the above

ng power?

22- means the condition where the VM does not have sufficient resources to fulfill the SLA

- a. Hot Spot
- b. Elasticity
- c. Reliability
- d. Interoperability

23- What is t common problem found in the distributed system

- a. Process Synchronization
- b. Communication synchronization
- c. Deadlock problem
- d. All the above

24- The capability of a system to adapt the increased service load is called.....

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- a. Scalability
- b. Tolerance
- c. Capacity
- d. Availability

25- harvests IT resources from existing nonexclusive and sporadically available hosts in a company and exposes them to Cloud users

- a. Mobile Cloud Computing
- b. Fog Computing
- c. Grid Computing
- d. Ad Hoc Computing

Question 2: Answer with True or False

[30 marks]

- [1] By using virtualization, all servers and the software applications which are required by other cloud providers are maintained by the third party people
- [2] The combination of both volunteer computing and virtualization is considered the backbone of the Cloud Computing.
- [3] Edge computing provides users with different capabilities to store and process their data in third party data centers
- [4] Fog computing reduce latency by processing data where it is generated and used
- [5] Creation of a virtual machine over existing operating system and hardware is known as Hardware Virtualization.
- [6] Virtual machine consolidation is the task of moving a virtual machine from one physical hardware environment to another.
- [7] A hypervisor is a hardware virtualization technique that allows multiple guest operating systems to run on a single host system at the same time.
- [8] In PreCopy, pages are transferred continuously without suspension of source VM. Once sufficient pages are transferred, VM gets suspended at the source and the remaining state is transferred to the target physical machine.
- [9] In a distributed system, the user can access remote resources either by logging into the appropriate remote machine or transferring data from the remote machine to their own machine.
- [10] The capability of a system to adapt the increased service load is called availability

*With My Best Wish
Prof. Fatma Oman*