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Final Cloud
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Cairo University
Faculty of Computers and Information

Final Term Exam

Course Name: Selected Topic 1(Cloud Computing)
Course Code: CS495
Instructor(s): Prof. Fatma Omara

Date: 4/6/2023
Duration: 2 hours
Total Marks: 60

Answer The Following Questions

Question 1: Complete the following statements **[30 marks]**

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

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

2- ..... refers to the interaction and communication between machines to produce and exchange data

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

3- ..... is the technology integrating Cloud Computing with Mobile environment.

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

4- ..... is used to overcome the latency by processing data at the network edge instead of Cloud

a. Edge Computing
b. Fog Computing
c. Ad hoc Computing
d. Mobile Computing

5- Which of the following service provider provides the least amount of built-in security?

a. SaaS
b. PaaS
c. IaaS
d. All the above

6- 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

7- ..... is the abstraction of a data center clusters hardware into several VMs

a. Horizontal Virtualization
b. Vertical Virtualization
c. X-Y Virtualization
d. Not all the above

8- ..... the presence of more than one cloud deployment of the same type sourced from different vendors.

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

9- ..... 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

10- ..... is a collection of organizations have the same aims to share data and computing

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a. P2P
b. Cluster Computing
c. Grid Computing
d. Virtual Organization

11- ..... is a combination of heterogeneous, hierarchical, and distributed computing resources

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

12- ..... is the time during which VM on the host is not available.

a. Response time
b. Turnaround time
c. Down Time
d. Migration time

13- ..... 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

14- ..... is composed of multiple internal or external clouds.

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

15- Which of the following type of virtualization is also characteristic of cloud computing

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

16- Which of the following is the operational domain of Cloud Computing?

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

17- If one site fails in the distributed system, ----------

a. The remaining sites can continue operating
b. All the sites will stop working
c. Directly connected sites will stop working
d. None of the mentioned

18- 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

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19- ..... 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

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20- 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

21- 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

Hardware Virtualization

22- In distributed system each processor has its own .....

a. Local Memory
b. Clock
c. Both Local Memory and Clock
d. None of the above

23- ..... is the task of moving VMs from one physical hardware environment to another to save energy.

a. Green ICT
b. Load balance
c. Consolidation
d. All the above

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

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

25- What is the common problem found in the distributed system .....

a. Process Synchronization
b. Communication synchronization
c. Deadlock and/or live lock problems
d. All the above

-1

J. All

26- The capability of a system to adapt the needed service load is called.....

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

27- ..... 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

28- _____ hitting distribution from the users or programs

a. Reliability
b. Productivity
c. Transparency
d. All of the mentioned

29- ..... approach is used for provisioning cloudlets

a. VM overlay
b. VM Synthesis
c. VM Migration
d. Not the above

30- ..... the degree to which new resource can be added and made available for using by a variety of client programs.

a. Heterogeneity
b. Openness
c. Scalability
d. All of the mentioned

Question 2: **[10 marks]**

What is the relationship between the following:

[1] Availability and Reliability
[2] Scalability and Openness
[3] Utility Computing and Cloud Computing
[4] IOT, Fog, and Big Data
[5] Hybrid Cloud and Multi Cloud

Question 3 **[20 marks]**

What are the similarities and differences between the following:

[1] Windows Azure and Google AppEngine
[2] Fog Computing and Cloudlet Computing
[3] Page-Fault and Dirty-Page
[4] Full Virtualization and Para Virtualization
[5] Data Locality and Computing Locality

Means moving Computation Rather Than moving Data to save bandwidth.

refers to the Principle That Computations should be performed on the same physical or logical node as the data they require.

With My Best Wishes
Prof. Fatma Omara