



Cairo University
Faculty of Computers and Artificial Intelligence



Med Term Exam

Course Name: Advanced Topics in Software Engineering

Date: 20/11/2022

Course Code: CS466

Duration: 1 hours

Instructor(s): Prof. Fatma Omara

Total Marks: 20

Answer The Following Questions

Question 1: Complete the following statements

[10 marks]

1- concerns about how to allocate resources of a system in Cloud Computing among users' workloads

a. Scheduling

b. Provisioning

c. Monitoring

d. All the above

2- is a cloud service provided to the developers to develop applications

a. SaaS

b. PaaS

c. IaaS

d. All the above

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

a. Scalability

b. Openness

c. Heterogeneity

d. Reliability

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

a. Grid

b. Cloud

c. Clusters

d. Jungle 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- Distributed systems have -----
- a. High security
 - b. Better resource sharing
 - c. Better system utilization
 - d. Low system overhead
- 7- 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
- 8- Attached Services is considered -----
- a. SaaS
 - b. PaaS
 - c. IaaS
 - d. All the above
- 9- Hide that a resource may be moved to another location while in use -----
- a. Access Transparent
 - b. Relocation Transparent
 - c. Migration
 - d. All of the mentioned
- 10- Which of the following is not an advantage of Distributed ems -----
- a. Reliability
 - b. Incremental growth
 - c. Resource sharing
 - d. None of the above

Question 2: Define the following

[10 marks]

[1] Cloud Computing

It is a computing model for enabling everywhere, convenient, on-demand network access to a shared pool of configurable resources (eg., networks, storage, servers, etc.) that can be rapidly provisioned and released with minimal management effort or service provider interaction.

[2] Performance miss match

It is the situation when there is discrepancy or inconsistency between the expected performance of a system and its actual performance, due to the performance gap between the CPU, RAM and storage.

[3] Live Lock

It is when two or more processes are stuck in a loop responding to each other's actions without any progress.

[4] Cloud Bursting

It is the practice of automatically and temporarily adding computing resources from a public cloud to a private cloud in order to handle spikes in demand.

[5] SLA

It stands for service level agreement which is a contract or an agreement between a service provider and its customers that defines the level of service that the provider is expected to deliver and it includes measurable metrics or performance indicators and non-functional requirements that specify the quality, availability, reliability, security and responsiveness of the service as well as the consequences or penalties if the provider fails to meet these metrics or requirements.

***With My Best Wishes
Prof. Fatma Omara***