## Cloud Computing

### Assignment- Week 3
### TYPE OF QUESTION: MCQ/MSQ

**Number of questions**: **10**                                    **Total mark: 10 X 1 = 10**

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### QUESTION 1:

Which of the following system/ architecture follow(s) Quorum protocol for a large number of concurrent reads & writes?

      (a) Google File System (GFS)

      (b) BigTable

      (c) Dynamo

      (d) None of the above

**Correct Option: c**

**Detailed Solution:** Dynamo follows Quorum protocol for a large number of concurrent reads & writes.

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### QUESTION 2:

Statement 1: In ephemeral storage, the stored objects persist until the VM is terminated.

Statement 2: The ephemeral storage is managed by Cinder in OpenStack.

      (a) Statement 1 is TRUE, Statement 2 is FALSE

      (b) Statement 2 is TRUE, Statement 1 is FALSE

      (c) Both statements are TRUE

      (d) Both statements are FALSE

**Correct Answer: a**

**Detailed Solution**: Ephemeral storage is managed by NOVA in OpenStack.

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### QUESTION 3:

Column-oriented storage is efficient for data-warehouse workloads.

      (a) TRUE
      (b) FALSE

**Correct Answer: a**

**Detailed Solution:** From the definition of data storage techniques. (Slide no. 6 of Cloud Computing: Managing Data)

## QUESTION 4:

Horizon is a _____ self-service portal to interact with underlying OpenStack services
   a) mobile based
   b) OS based
   c) web based
   d) None of the above

**Correct Option:** c
**Detailed Solution:** Horizon provides a web-based self-service portal to interact with underlying OpenStack services, such as launching an instance, assigning IP addresses and configuring access controls

## QUESTION 5:

What is the parallel efficiency (Eff) of an algorithm, when a task takes time T in uniprocessor system, P is number of processors, M is time taken by each processor?

(a) Eff = (T*P)/M

(b) Eff = T*(M/P)

(c) Eff = T*P*M

(d) Eff = T/(P*M)

**Correct Answer:** d
**Detailed Solution:** Eff = T/(P*M) is the parallel efficiency(Eff) of an algorithm.

## QUESTION 6:

In cloud, service downtime is 30 minutes and availability of the service is 0.80. What is the service uptime?

(a) 120 minutes
(b) 60 minutes
(c) 150 minutes
(d) 135 minutes

**Correct Option: c**
**Detailed Answer:** Availability = 1 – (downtime/uptime).
Uptime = Downtime/(1-Availability) = 30/(1-0.8) = 150 minutes

## QUESTION 7:

Which of the following is/are NOT SLA requirement(s) of PaaS cloud delivery model?

a. Data Retention and Deletion
b. Privacy
c. Machine-Readable SLAs
d. Certification

**Correct Answer: a,c**
**Detailed Solution:** Data Retention and Deletion and Machine-Readable SLAs are not SLA requirements with respect to Paas cloud delivery model.

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## QUESTION 8:

What does the 'availability' metric represent in the monitoring and auditing of SLAs?

a) The speed at which a service responds

b) How often the service is available

c) The ability for a resource to grow infinitely

d) The percentage of uptime for a service

**Correct Answer: d**
**Detailed Solution:** availability is represented as a percentage of uptime for a service in a given observation period.

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## QUESTION 9:

What architecture is used in a parallel database for the efficient execution of SQL queries?

a) Shared memory architecture
b) Shared disk architecture
c) Shared nothing architecture
d) Shared cache architecture

**Correct Answer: c**
**Detailed Solution:** For shared-nothing architecture in the parallel database, tables are partitioned and distributed across multiple processing nodes and SQL optimizer handles distributed joins

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## QUESTION 10:

_____ is used for networking services in OpenStack.

a) Keystone
b) Neutron
c) Cinder
d) Swift

**Correct Answer: b**
**Detailed Solution**: Neutron is used for networking services in OpenStack.