Cloud Computing

Assignment- Week 3

TYPE OF QUESTION: MCQ/MSQ

[One or more options may be correct]

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

QUESTION 1:

Which of the following OpenStack component is used for networking services?

(a) Swift

(b) Keystone

(c) Neutron

(d) Cinder

Correct Answer: c

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

QUESTION 2:

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 Answer: c

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

QUESTION 3:

S1: In ephemeral storage, the stored objects persist until the VM is terminated.

S2: The ephemeral storage is managed by Cinder in OpenStack.

(a) S1 is TRUE, S2 is FALSE

(b) S2 is TRUE, S1 is FALSE

(c) Both are TRUE

(d) Both are FALSE

Correct Answer: a

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

QUESTION 4:

In cloud, total service uptime is 185 minutes and availability of the service is 0.75. What is the downtime of the service?

(a) 25.8 minutes

(b) 46.25 minutes

(c) 24 minutes

(d) None of the above

Correct Answer: b

Detailed Solution: *Availability = 1 – (downtime/uptime).*

downtime = 185 x (1-0.75) = 46.25

QUESTION 5:

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 6:

What is/are the SLA requirement(s) for PaaS cloud delivery model?

(a) Data Retention and Deletion

(b) Hardware Erasure and Destruction

(c) Transparency

(d) Privacy

Correct Answer: c, d

Detailed Solution: *Refer the table provided in the slide no 17 of Service Level Agreement (SLA) Lecture (Source: Cloud Computing Use Cases White Paper" Version 4.0)*

QUESTION 7:

What is the parallel efficiency (Eff) of an algorithm? Where 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: c

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

QUESTION 8:

What is/ are the expected SLA parameters in Storage-as-a-Service?

(a) Geographic Location

(b) Fault tolerance

(c) Customizability

(d) Response time

Correct Answer: a, b

Detailed Solution: *Expected SLA parameters: Geographic location, scalability, storage space, storage billing, security, privacy, backup, fault tolerance/resilience, recovery, system throughput, transferring bandwidth, data life cycle management*

QUESTION 9:

In a system, 2500 unit workloads have been added. What will be the penalty?

(a) 25

(b) 100

(c) 50

(d) 2499

Correct Answer: c

Detailed Solution: *Adding n independent demands reduces the C_v by 1/sqrt(n) which in turn results penalty to 1/sqrt(n).*

QUESTION 10:

When utility premium is greater than the ratio of peak demand to Average demand, then the cloud is cheaper than owing.

(a) TRUE

(b) FALSE

Correct Answer: b

Detailed Solution: *When utility premium is less than ratio of peak demand to Average demand, the cloud is cheaper than owing.*

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