Cloud Computing

Assignment- Week 7

TYPE OF QUESTION: MSQ

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

QUESTION 1:

Fog Computing implements in

a. Smart Grid
b. Start Traffic Light
c. Connected Vehicles
d. None of the above

Correct Answer: a, b, c

Detailed Solution:

Fog computing implements in Smart Grid, Start Traffic light, Connected Vehicles. So, correct options are (a), (b), and (c).

QUESTION 2:

What is/are TRUE about Mobile Cloud Computing(MCC)?

a. MCC should increase the mobile's battery lifetime by reducing power consumption
b. MCC should optimize the cost of network usage and server usage
c. MCC should take longer time to finish the application compared to local execution
d. MCC should not bother about the security of data while offloading it to server

Correct Answer: a, b

Detailed Solution:

MCC must reduce energy usage and extend battery life. It should not take longer to finish the application compared to local execution. Cost of network usage and server usage must be optimized. As offloading transfers data to the servers, MCC ensure confidentiality and privacy of data, how to identify methods which process confidential data. So, the options (a) and (b) are true about MCC.

QUESTION 3:

Identify the correct statement(s) about Cloudlet?

a. It increases latency by using multi-hop network
b. It consumes low battery power
c. It uses broadband wireless
d. It uses short-range radio wireless

Correct Answer: b, d

Detailed Solution:

Cloudlet architecture decreases latency by using a single-hop network and potentially lowers battery consumption by using Wi-Fi or short-range radio instead of broadband wireless which typically consumes more energy. So, the correct options are (b) and (d).

QUESTION 4:

Which of the followings is/are feature(s) of Mobile Cloud Computing?

a. Use less mobile device resources because applications are cloud-supported
b. Reduce reliability with information backed up and stored in the cloud
c. Mobile devices connect to services delivered through an API architecture
d. Facilitates slower development, delivery and management of mobile apps

Correct Answer: a, c

Detailed Solution:

Mobile cloud computing features are: Facilitates the quick development, delivery and management of mobile apps. Uses fewer device resources because applications are cloud-supported. Mobile devices connect to services delivered through an API architecture. Improves reliability with information backed up and stored in the cloud. So, the correct options are (a) and (c).

QUESTION 5:

Match the following tables related to MCC Key components:

Table – I	Table – II
1. Profiler	i. Collects results of split execution and combine, and make the execution details transparent to the user
2. Solver	ii. Monitors application execution to collect data about execution time, power consumption, network traffic
3. Synchronizer	iii. The task of selecting which parts of an app runs on mobile and cloud

a. 1. -> (ii), 2. -> (iii), 3. -> (i)
b. 1. -> (iii), 2. -> (i), 3. -> (ii)
c. 1. -> (i), 2. -> (ii), 3. -> (iii)
d. 1. -> (ii), 2. -> (i), 3. -> (iii)

Correct Answer: a

Detailed Solution:

Profiler monitors application execution to collect data about the time to execute, power consumption, network traffic. Solver has the task of selecting which parts of an app runs on mobile and cloud. Task of synchronizer modules is to collect results of split execution and combine, and make the execution details transparent to the user. So, the correct option is (a).

QUESTION 6:

_____ ensures the ability to exchange / obtain the information to be “consumed”.

a. Data Level Interoperability
b. Security Level Interoperability
c. Service Level Interoperability
d. None of the above

Correct Answer: c

Detailed Solution:

Service Level Interoperability ensures the ability to exchange / obtain the information to be “consumed”. So, the correct option is (c).

QUESTION 7:

Which of the following statement(s) is/are FALSE about Fog Computing?

a. Fog nodes present near to the end-user
b. Fog computing use for real-time applications
c. Fog nodes' response time is much higher than cloud server
d. Network routers, WiFi Gateways will not be capable of running applications

Correct Answer: c, d

Detailed Solution:

Fog nodes present near to the end-user, Fog computing use for real-time applications, Fog nodes' response time is much lower than cloud server, network routers, WiFi Gateways will be capable of running applications. So, the correct options are (c), (d).

QUESTION 8:

State Migration happens when

a. Migrate the partially processed persistent data to a new node due to availability of an executing node
b. Migrate the partially processed persistent data to a new node due to unavailability of an executing node
c. Migrate the fully processed persistent data to a new node due to unavailability of an executing node
d. Migrate the fully processed persistent data to a new node due to availability of an executing node

Correct Answer: b

Detailed Solution:

State Migration happens due to unavailability of an executing node, there is a need to migrate the partially processed persistent data to a new node. So, the correct options are (b).

QUESTION 9:

Geographical distribution of server nodes is _____ in Fog Computing and _____ in Cloud Computing.

a. Centralized, Distributed
b. Centralized, Centralized
c. Distributed, Centralized
d. Distributed, Distributed

Correct Answer: c

Detailed Solution:

Geographical distribution of server nodes is Distributed in Fog Computing, and Centralized in Cloud Computing. So, the correct option is (c).

QUESTION 10:

Which of the following is/are the challenge(s) of Geospatial Cloud?

a. Scaling of Spatial Databases
b. Policy management among the tenants
c. Implementation of Spatial Databases
d. None of the above

Correct Answer: a, b, c

Detailed Solution:

Challenges of Geospatial Cloud are as follows-
1. Implementation of Spatial Databases
2. Scaling of Spatial Databases
3. Policy management among the tenants
So, correct options are (a), (b), (c).

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