



Cloud Computing
Assignment- Week 3
TYPE OF QUESTION: MSQ

Number of questions: 10

Total mark: 10 X 1 = 10

QUESTION 1:

Which of the following is false about SLA contents

- a) A complete, specific definition of each service
- b) An auditing mechanism to monitor the services
- c) The responsibilities of the provider only
- d) None of these

Correct Answer: c

Detailed Solution: SLA contents include responsibilities of the provider as well as consumer.

QUESTION 2:

Key Performance Indicator is a high-level resource metrics.

- a) True
- b) False

Correct Answer: b

Detailed Solution: Key Performance Indicator is a low level resource metric.

QUESTION 3:

Which of the following is correct about Availability?

- a) $\text{Availability} = 1 - (\text{UpTime} / \text{TotalTime})$
- b) $\text{Availability} = 1 - (\text{DownTime} / \text{UpTime})$
- c) $\text{Availability} = 1 + (\text{DownTime} / \text{UpTime})$
- d) $\text{Availability} = 1 + (\text{UpTime} / \text{DownTime})$

Correct Answer: b

Detailed Solution: $\text{Availability} = 1 - (\text{DownTime} / \text{UpTime})$. Correct option is (b).

QUESTION 4:

Statement 1: Coefficient of variance represents the ratio of standard deviation to mean.



Statement 2: Coefficient of variance is a useful statistic for comparing the degree of uniformity from one data series to another.

- a) Only statement 1 is true
- b) Only statement 2 is true
- c) Both the statements are true
- d) Both the statements are False

Correct Answer: a

Detailed Solution: Coefficient of variance is a useful statistic for comparing the degree of variation from one data series to another. Hence, the correct option is (a).

QUESTION 5:

Multiplexing demand from multiple sources may increase the coefficient of variation.

- a) True
- b) False

Correct Answer: b

Detailed Solution: Multiplexing demand from multiple sources may reduce the coefficient of variation.

QUESTION 6:

Which of the following is true about penalty, where $D(t)$ is instantaneous demand at time t and $R(t)$ is response at time t ?

- a) $\text{Penalty} \propto \int |R(t) * D(t)| dt$
- b) $\text{Penalty} \propto \int |D(t) - R(t)| dt$
- c) $\text{Penalty} \propto \int |D(t) + R(t)| dt$
- d) None of these

Correct Answer: b

Detailed Solution: Penalty is proportional to $\int |D(t) - R(t)| dt$

QUESTION 7:

Which of the following is/are true?

- a) Column oriented data storage technique is efficient for data warehouse workloads.
- b) Row oriented data storage technique is optimal for write oriented operation.
- c) None of the above



Correct Answer: a, b

Detailed Solution: Column oriented storage is more suitable for data warehouse type of loads where aggregation of measure columns need to be performed based on the values from dimension columns. Row oriented technique is optimal in case of write-oriented operations such as transaction processing applications. Both of the statements are true. Hence, the correct options are (a) and (b).

QUESTION 8:

Which of the following data warehousing databases is/are capable of handling parallel processing?

- a) Oracle
- b) Vertica
- c) SQLServer
- d) None of these

Correct Answer: b

Detailed Solution: All of these databases are capable of handling parallel processing but only Vertica is a data warehousing database. Oracle and SQLServer are traditional transaction processing databases. So, the correct option is (b).

QUESTION 9:

Statement 1: Hadoop Distributed File System is an open source implementation of GFS architecture.

Statement 2: In Google File System, the master maintains regular communication with the chunk servers.

- a) Only statement 1 is true
- b) Only statement 2 is true
- c) Both the statements are true
- d) Both the statements are false

Correct Answer: c

Detailed Solution: Hadoop Distributed File System is an open source implementation of GFS architecture. In the Google File System, the master maintains regular communication with the chunk server. This is better known as heartbeat messages. In case of a failure, chunk server meta-data gets updated to reflect failure.

QUESTION 10:

In the Map-Reduce model, which of the following is/ are True?

- a) Map operation consists of transforming one set of key-value pair to another set of key value pair
- b) Each mapper writes computational results in one file per reducer
- c) Files are sorted by a key and stored in a local file system



d) None of the above

Correct Answer: a, b, c

Detailed Solution: All the statements about the MapReduce model are true. So options (a), (b) and (c) are correct.

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