NPTEL Cloud Computing – Week 1

1. Which of the following falls under the "essential characteristics" of cloud computing?

A) Resource Pooling

B) Measured Service

C) Rapid Elasticity

D) Latency

Explanation: The essential characteristics of cloud computing include on-demand self-service, broad network access, resource pooling, rapid elasticity, and measured service. Latency is not considered an essential characteristic but a performance metric.

2. "Google Doc" is an example of:

A) PaaS

B) IaaS

C) SaaS

D) FaaS

Explanation: Google Docs is a software as a service (SaaS) application, where users can access software over the internet without managing the underlying infrastructure.

3. Business-Process-as-a-Service is not a part of XaaS.

A) True

B) False

Explanation: XaaS (Anything as a Service) includes a variety of services delivered over the internet, including Business-Process-as-a-Service (BPaaS).

4. Network Function Virtualization involves the implementation of _____ function in software that can run on a range of industry-standard servers:

A) network, software

B) hardware, software

C) hardware, network

D) network, hardware

Explanation: Network Function Virtualization (NFV) involves implementing network functions in software, which can run on standard server hardware.

5. Which are the following applications for SaaS (Software as a Service) architecture?

A) Billing software

B) CRM

C) App engines

D) None of above

Explanation: Billing software and CRM (Customer Relationship Management) systems are typical applications provided through a SaaS architecture. App engines fall under PaaS (Platform as a Service).

6. Web access to commercial software is one of the SaaS characteristics in the cloud computing paradigm.

A) True

B) False

Explanation: One of the characteristics of SaaS is that it is delivered over the internet, allowing access to commercial software via a web browser.

7. In the case of the client-server model: Statement (I) Virtualization is a core concept. Statement (II) system can scale infinitely.

A) Only Statement (I) is correct

B) Only Statement (II) is correct

C) Both Statements (I) and (II) are correct

D) None of the statements is correct

Explanation: Virtualization is a core concept in the client-server model, but the system does not inherently scale infinitely.

8. Client-server model is always load-balanced.

A) True

B) False

Explanation: The client-server model is not always load-balanced. Load balancing is an additional configuration to distribute workloads evenly across servers.

9. PaaS (Platform as a Service) brings the benefits: (i) Creation of software (ii) Integration of web services and databases.

A) Only (i)

B) Only (ii)

C) Both (i) and (ii)

D) Neither (i) nor (ii)

Explanation: PaaS provides a platform allowing customers to develop, run, and manage applications without dealing with the infrastructure, thus aiding in the creation of software and integration of web services and databases.

10. Which of the following is false?

A) Private cloud is dedicated solely to an organization.

C) Public cloud is available to the general public.

D) None of these

Explanation: A community cloud is a collaborative effort where infrastructure is shared between several organizations from a specific community with common concerns, not a mix of public and private cloud.