



vendors without using additional programming.

(b) It provides computational resources on-demand as a metered service.

(c) Service-Oriented Architecture allows using the application as a service for other applications.

(d) Both A and C

- 1-d. VMWARE is example of \_\_\_\_\_ Virtualization [CO2] 1
- (a) Application Level
  - (b) Library Level
  - (c) Hardware Abstraction layer level
  - (d) None of These
- 1-e. Salesforce is example of \_\_\_\_\_ [CO3] 1
- (a) IAAS
  - (b) PAAS
  - (c) SAAS
  - (d) None of these
- 1-f. A \_\_\_\_\_ provides the cloud infrastructure and computing resources to the general public over a public network. [CO3] 1
- (a) public cloud
  - (b) private cloud
  - (c) community cloud
  - (d) hybrid cloud
- 1-g. Which of the following is not a layer in edge computing environment. [CO4] 1
- (a) Cloud Layer
  - (b) Device Layer
  - (c) Data Layer
  - (d) Edge Layer
- 1-h. Edge computing expected to improve the..... [CO4] 1
- (a) It can alleviate latency issues
  - (b) It can ease network congestion
  - (c) It can bolster bandwidth for IoT devices
  - (d) All of the above
- 1-i. Streaming data refers to data which is..... [CO5] 1
- (a) Continuously generated

(b) Static

(c) Both

(d) None

- 1-j. (FOTA) refers to..... [CO5] 1
- (a) Film over-the-air
  - (b) Firmware over-the-air
  - (c) Fog over-the-air
  - (d) None

**2. Attempt all parts:-**

- 2.a. Write any 4 advantages of cloud computing. [CO1] 2
- 2.b. Point Out the primary purpose of RESTful systems in web service architecture. [CO2] 2
- 2.c. What are the two major challenges in a cloud computing environment? [CO3] 2
- 2.d. Mention role of edge application in cloud. [CO4] 2
- 2.e. Define OTA in IoT. [CO5] 2

**SECTION B**

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**3. Answer any five of the following:-**

- 3-a. Describe the history of cloud computing. [CO1] 6
- 3-b. Differentiate among IaaS, PaaS, and SaaS. [CO1] 6
- 3-c. Explain publish-subscribe model in cloud computing. [CO2] 6
- 3-d. What is the main purpose of Service-Oriented Architecture? [CO2] 6
- 3.e. List out 10 advantages of cloud storage? [CO3] 6
- 3.f. Role of data privacy in edge application is important, Justify. [CO4] 6
- 3.g. Mention the role of complex event processing in edge computing. [CO5] 6

**SECTION C**

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**4. Answer any one of the following:-**

- 4-a. Explain different models for deployment in cloud computing. [CO1] 10
- 4-b. Discuss about Amazon EC2 Instances and its types. [CO1] 10

**5. Answer any one of the following:-**

- 5-a. What is virtualization? Explain about the virtualization of CPU and memory? [CO2] 10
- 5-b. Compare SOA with traditional system architecture. [CO2] 10

**6. Answer any one of the following:-**

- 6-a. Draw NIST Cloud Computing Reference Architecture and explain in detail. [CO3] 10
- 6-b. Explain about the concept of Elastic Block Storage in cloud computing. [CO3] 10

**7. Answer any one of the following:-**

- 7-a. Draw the components of edge computing layered architecture. [CO4] 10
- 7-b. Discuss, how Edge AI can be used to improve ATMs' security. [CO4] 10

**8. Answer any one of the following:-**

- 8-a. How complex event processing takes place in edge computing, Explain. [CO5] 10
- 8-b. Explain AWS IoT Set up procedure. List the step by step process to connect a thing to AWS Core Cloud. [CO5] 10

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