Dr. A.P.J. Abdul Kalam Technical University (AKTU) · B.Tech Theory Examination

# Cloud Computing

KCS713 · 2024

**Time: 3 Hours** **Max. Marks: 100**

Attempt all Sections.
If require any missing data; then choose suitably.

## SECTION A

| | | | |
|---|---|---|---|
| **1(a)** | Compare parallel computing and distributed computing. | 2 | U1 |
| **1(b)** | List the characteristics of cloud computing. | 2 | U1 |
| **1(c)** | Define disaster recovery. | 2 | U2 |
| **1(d)** | List types of Virtualizations. | 2 | U2 |
| **1(e)** | Define community cloud with example. | 2 | U3 |
| **1(f)** | List the types of services provided by cloud. | 2 | U3 |
| **1(g)** | Define VM security. | 2 | U4 |
| **1(h)** | List the security threats in cloud computing. | 2 | U4 |
| **1(i)** | List four levels of Federation. | 2 | U5 |
| **1(j)** | Define virtual box. | 2 | U5 |

## SECTION B

| | | | |
|---|---|---|---|
| **2(a)** | Define the need of cloud computing and explain its evolution with suitable diagram. | 10 | U1 |
| **2(b)** | Describe the different techniques used for implementation of Hardware virtualization. Explain them with diagram. | 10 | U2 |
| **2(c)** | Explain the major goal of NIST. Also explain the different layers in cloud computing. | 10 | U3 |
| **2(d)** | Explain resource provisioning and resource provisioning methods. | 10 | U4 |
| **2(e)** | Explain Hadoop and its history. Also illustrate Hadoop architecture. | 10 | U5 |

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## SECTION C

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|---|---|---|---|
| **3(a)** | Discuss cloud computing delivery model with advantages and disadvantages. | 10 | U1 |
| **3(b)** | Describe in detail about cloud computing reference model with a neat diagram. | 10 | U1 |
| **4(a)** | Discuss Service-oriented architecture (SOA). Also explain building block of SOAP. | 10 | U2 |
| **4(b)** | Explain Architectural constraints of web services. | 10 | U2 |
| **5(a)** | Describe the components of Cloud Provider. Also explain the responsibility of cloud provider for SaaS, PaaS, and IaaS. | 10 | U3 |
| **5(b)** | Explain Amazon S3. Also describe the advantages of cloud storage. | 10 | U3 |
| **6(a)** | Explain inter cloud resource management in cloud computing. | 10 | U4 |
| **6(b)** | Discuss security challenges and security governance in cloud computing environment. | 10 | U4 |
| **7(a)** | Give a suitable definition of cloud federation stack and explain it in detail. | 10 | U5 |
| **7(b)** | Explain Web services in detail. Differentiate Web services and APIs. | 10 | U5 |

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