***RG 23 Regulation***

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## Unit of USHODAYA EDUCATIONAL SOCIETY

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**BRANCH:CS YEAR/SEM: III/I**

**COURSE TITLE:** **Cloud Computing (23A0525T) ACADEMIC YEAR: 2025-26**

**FACULTY: Mr. RAMESH DAMPURU**

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| **CLOUD COMPUTING**  **QUESTION BANK** |

**UNIT-I-** **Basics of Cloud computing**

**2-Marks Questions**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S.No** | **Question** | **CO** | **BL** | **Marks** |
| **1** | Define Cloud Computing. Remember | **1** | **L1** | **2** |
| **2** | List any four characteristics of Cloud Computing. Remember | **1** | **L1** | **2** |
| **3** | What is virtualization? Remember | **1** | **L1** | **2** |
| **4** | Give two examples of cloud services. Remember | **1** | **L1** | **2** |
| **5** | What is load balancing in cloud? Understand | **1** | **L1** | **2** |
| **6** | Define elasticity in cloud computing. Understand | **1** | **L1** | **2** |
| **7** | What is a Service Level Agreement (SLA)? Understand | **1** | **L1** | **2** |
| **8** | List the three main cloud service models. Remember | **1** | **L1** | **2** |
| **9** | Define Identity and Access Management (IAM). Remember | **1** | **L1** | **2** |
| **10** | Mention any two open-source private cloud software. Remember | **1** | **L1** | **2** |

**10-Marks Questions**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S.No** | **Question** | **CO** | **BL** | **Marks** |
| **1** | Explain the characteristics and benefits of cloud computing. Understand | **1** | **L2** | **10** |
| **2** | Discuss different cloud service models with examples. Understand | **1** | L2 | **10** |
| **3** | Explain virtualization and its types in detail. Understand | **1** | L2 | **10** |
| **4** | Describe load balancing, scalability, and elasticity in cloud. Understand | **1** | L2 | **10** |
| **5** | Explain MapReduce and its role in cloud computing. Understand | **1** | L2 | **10** |
| **6** | Discuss cloud deployment models with examples. Understand | **1** | L2 | **10** |
| **7** | Explain cloud monitoring and billing mechanisms. Apply | **1** | L3 | **10** |
| **8** | Write about Service Level Agreements and their importance. Apply | **1** | L3 | **10** |
| **9** | Discuss the role of Identity and Access Management in cloud security. Apply | **1** | L3 | **10** |
| **10** | Explain compute, storage, and database services in cloud platforms. Understand | **1** | L2 | **10** |

**UNIT-II- Hadoop and Python**

**2-Marks Questions**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S.No** | **Question** | **CO** | **BL** | **Marks** |
| **1** | What is Apache Hadoop? | **2** | **1** | **2** |
| **2** | Define MapReduce. | **2** | **1** | **2** |
| **3** | List two Hadoop schedulers. | **2** | **1** | **2** |
| **4** | Name any two Hadoop ecosystem components. | **2** | **1** | **2** |
| **5** | What is Python package? | **2** | **2** | **2** |
| **6** | Mention two Python data types. | **2** | **1** | **2** |
| **7** | What is the use of Python modules? | **2** | **2** | **2** |
| **8** | Give any two Python file handling operations. | **2** | **1** | **2** |
| **9** | Define cluster setup in Hadoop. | **2** | **2** | **2** |
| **10** | What is the role of Hadoop in cloud computing? | **2** | **1** | **2** |

**10-Marks Questions**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S.No** | **Question** | **CO** | **BL** | **Marks** |
| **1** | Explain Hadoop architecture with neat diagram. | **2** | **2** | **10** |
| **2** | Discuss Hadoop MapReduce job execution process. | **2** | **2** | **10** |
| **3** | Describe the steps for setting up a Hadoop cluster. | **2** | **3** | **10** |
| **4** | Explain different Hadoop schedulers. | **2** | **2** | **10** |
| **5** | Explain Python data structures with examples. | **2** | **2** | **10** |
| **6** | Explain Python file handling and date/time operations. | **2** | **3** | **10** |
| **7** | Discuss cloud application design methodologies. | **2** | **4** | **10** |
| **8** | Explain Python modules and packages in detail. | **2** | **2** | **10** |
| **9** | Describe the reference architecture for cloud applications. | **2** | **4** | **10** |
| **10** | Explain different data storage approaches for cloud apps. | **2** | **4** | **10** |

**UNIT-III- Python for Cloud Computing**

**2-Marks Questions**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S.No** | **Question** | **CO** | **BL** | **Marks** |
| **1** | List any two Python libraries for cloud computing. | **3** | **1** | **2** |
| **2** | What is a RESTful web API? | **3** | **2** | **2** |
| **3** | Mention any two cloud platforms supported by Python. | **3** | **1** | **2** |
| **4** | Define Python web application framework. | **3** | **2** | **2** |
| **5** | Give an example of Python for AWS usage. | **3** | **3** | **2** |
| **6** | Define MapReduce App in Python. | **3** | **2** | **2** |
| **7** | What is Python’s role in Google Cloud? | **3** | **2** | **2** |
| **8** | Mention any two Python cloud applications. | **3** | **1** | **2** |
| **9** | Define social media analytics. | **3** | **2** | **2** |
| **10** | Name any one Python package for cloud computing | **3** | **1** | **2** |

**10-Marks Questions**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S.No** | **Question** | **CO** | **BL** | **Marks** |
| **1** | Explain how Python is used in Amazon Web Services. | **3** | **2** | **10** |
| **2** | Discuss Python for Google Cloud Platform with an example. | **3** | **2** | **10** |
| **3** | Describe the development of a document storage app in Python. | **3** | **3** | **10** |
| **4** | Explain the creation of a MapReduce app using Python. | **3** | **3** | **10** |
| **5** | Discuss the importance of Python in cloud app development. | **3** | **2** | **10** |
| **6** | Explain the design of a Social Media Analytics App in Python. | **3** | **4** | **10** |
| **7** | Describe how to build a RESTful web API in Python for cloud. | **3** | **3** | **10** |
| **8** | Explain the design of an Image Processing App using Python. | **3** | **3** | **10** |
| **9** | Discuss Python for Azure cloud applications. | **3** | **2** | **10** |
| **10** | Explain Python web application frameworks used for cloud. | **3** | **2** | **10** |

**UNIT-IV- Big Data, Multimedia, and Tuning**

**2-Marks Questions**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S.No** | **Question** | **CO** | **BL** | **Marks** |
| **1** | Define Big Data Analytics. | **4** | **2** | **2** |
| **2** | Mention any two Big Data clustering techniques. | **4** | **1** | **2** |
| **3** | What is cloud benchmarking? | **4** | **2** | **2** |
| **4** | Define multimedia cloud. | **4** | **2** | **2** |
| **5** | What is a streaming protocol? | **4** | **2** | **2** |
| **6** | Mention any two cloud app performance metrics. | **4** | **1** | **2** |
| **7** | What is workload characterization? | **4** | **2** | **2** |
| **8** | List any two cloud benchmarking tools. | **4** | **1** | **2** |
| **9** | Define load testing in cloud. | **4** | **3** | **2** |
| **10** | What is Hadoop benchmarking? | **4** | **2** | **2** |

**10-Marks Questions**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S.No** | **Question** | **CO** | **BL** | **Marks** |
| **1** | Explain clustering and classification of Big Data. | **4** | **2** | **10** |
| **2** | Discuss Big Data recommendation systems with examples. | **4** | **4** | **10** |
| **3** | Explain cloud application performance metrics in detail. | **4** | **2** | **10** |
| **4** | Describe design considerations for benchmarking methodology. | **4** | **4** | **10** |
| **5** | Discuss load testing and bottleneck detection in cloud apps. | **4** | **3** | **10** |
| **6** | Explain the case study of Live Video Streaming App. | **4** | **2** | **10** |
| **7** | Explain Hadoop benchmarking with a case study. | **4** | **4** | **10** |
| **8** | Describe streaming protocols and their applications in cloud. | **4** | **2** | **10** |
| **9** | Discuss deployment prototyping in cloud benchmarking. | **4** | **3** | **10** |
| **10** | Explain MapReduce performance tuning techniques. | **4** | **4** | **10** |

**UNIT-V- Applications and Issues in Cloud**

**2-Marks Questions**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S.No** | **Question** | **CO** | **BL** | **Marks** |
| **1** | Define cloud security. | **5** | **2** | **2** |
| **2** | What is CSA cloud security architecture? | **5** | **2** | **2** |
| **3** | Mention any two cloud authentication techniques. | **5** | **1** | **2** |
| **4** | Define cloud migration. | **5** | **2** | **2** |
| **5** | What is data privacy in cloud computing? | **6** | **2** | **2** |
| **6** | List two applications of cloud in healthcare. | **6** | **1** | **2** |
| **7** | Mention any two legal issues in cloud computing. | **6** | **2** | **2** |
| **8** | What is organizational readiness in cloud adoption? | **6** | **2** | **2** |
| **9** | Define cloud contracting model. | **6** | **2** | **2** |
| **10** | Mention any two special topics in cloud computing | **6** | **2** | **2** |

**10-Marks Questions**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S.No** | **Question** | **CO** | **BL** | **Marks** |
| **1** | Explain CSA cloud security architecture in detail. | **5** | **2** | **10** |
| **2** | Discuss authentication, authorization, and IAM in cloud. | **5** | **2** | **10** |
| **3** | Explain the seven-step model for cloud migration. | **5** | **2** | **10** |
| **4** | Describe cloud computing applications in healthcare and education. | **5** | **2** | **10** |
| **5** | Discuss key management and auditing in cloud security. | **6** | **2** | **10** |
| **6** | Explain change management models for cloud adoption. | **6** | **4** | **10** |
| **7** | Describe data privacy and jurisdictional issues in cloud computing. | **6** | **4** | **10** |
| **8** | Discuss cloud computing applications in transportation and manufacturing. | **6** | **4** | **10** |
| **9** | Explain the commercial and business considerations of cloud contracts. | **6** | **2** | **10** |
| **10** | Discuss organizational readiness self-assessment for cloud adoption. | **6** | **2** | **10** |

**Signature of the Staff:**

**Signature of Department Academic Committee Member 1:**

**Signature of Department Academic Committee Member 2:**

**Signature of Department Academic Committee Member 3:**

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