



**SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY**  
 (AUTONOMOUS)

(Approved by AICTE, New Delhi & Affiliated to JNTUA, Ananthapuramu)

(Accredited by NBA for Civil, EEE, Mech., ECE & CSE)

Accredited by NAAC with 'A+' Grade)

Puttur -517583, Tirupathi District, A.P. (India)

**QUESTION BANK (DESCRIPTIVE)**

**Subject with Code:** Cloud Computing (23CS0524)

**Year & Sem:** III B.Tech & II Sem

**Course & Branch:** CSE,CIA,CAD,CIC,CSIT

**Regulation:** R23

**UNIT I**  
**BASICS OF CLOUD COMPUTING**

1	a)	What is cloud computing? List any two characteristics of cloud computing.	[L1,CO1]	[2M]
	b)	Define (i)IaaS. (ii) PaaS. (iii) SaaS.	[L1,CO1]	[2M]
	c)	What is virtualization?	[L1,CO1]	[2M]
	d)	What is scalability and elasticity?	[L1,CO1]	[2M]
	e)	What is load balancing?	[L1,CO1]	[2M]
2	a)	Explain the characteristics of cloud computing.	[L2,CO1]	[5M]
	b)	Discuss cloud deployment models with examples.	[L2,CO1]	[5M]
3		Justify cloud models and cloud services with examples.	[L5,CO1]	[10M]
4	a)	Examine cloud computing services.	[L4,CO1]	[5M]
	b)	Classify cloud storage services	[L4,CO1]	[5M]
5	a)	Devise Map Reduce in cloud computing.	[L4,CO1]	[5M]
	b)	Classify the cloud Service level Agreements	[L4,CO1]	[5M]
6	a)	What is IAM? Explain its Characteristics.	[L2,CO1]	[5M]
	b)	Prioritize the following cloud concepts (i)Deployment (ii) Replication (iii) Monitoring	[L4,CO1]	[5M]
7		Discriminate cloud services such as compute, storage, analytics, IAM.	[L5,CO1]	[10M]
8		Discuss virtualization, load balancing, scalability, elasticity.	[L3,CO1]	[10M]
9		Generalize the Identity and Access Management services	[L6,CO1]	[10M]
10		Discriminate (i) Database Services(ii) Application Services	[L5,CO1]	[10M]
11	a)	Define Billing and Describe its Key components in an organization	[L1,CO1]	[5M]
	b)	Differentiate Type-I Hypervisor and Type-II Hypervisor with examples	[L4,CO1]	[5M]

**UNIT II**  
**HADOOP AND PYTHON**

1	a)	What is Python? List any two Python data types.	[L1,CO2]	[2M]
	b)	What is a Hadoop cluster?	[L1,CO2]	[2M]
	c)	What is file handling?	[L1,CO2]	[2M]
	d)	Define (i) Scheduler. (ii) Package.	[L1,CO2]	[2M]
	e)	What is Map Reduce?	[L1,CO2]	[2M]
2		Examine Python basics: types, flow, functions, modules.	[L2,CO2]	[10M]
3		Devise Hadoop architecture and MapReduce.	[L1,CO2]	[10M]
4		Construct Reference Architecture for Cloud Applications	[L6,CO2]	[10M]
5		Classify cloud application design Methodologies	[L5,CO2]	[10M]
6	a)	Justify Hadoop Map Reduce job execution.	[L5,CO2]	[5M]
	b)	Discuss the components of a Hadoop cluster setup.	[L4,CO2]	[5M]
7	a)	Maximize the Python control flow statements.	[L6,CO2]	[5M]
	b)	Generalize Python functions and modules with examples.	[L6,CO2]	[5M]
8	a)	Discriminate the Data Storage Approaches.	[L5,CO2]	[5M]
	b)	Prioritize the File handling in Python.	[L5,CO2]	[5M]
9		Briefly Explain Function, Modules, Packages of Python	[L2,CO2]	[10M]
10		Dissect Date/Time Operations of Python.	[L4,CO2]	[10M]
11		What is the Map Reduce Programming model in Hadoop? Explain Its main components with example.	[L1,CO2]	[10M]

**UNIT III**  
**PYTHON FOR CLOUD COMPUTING**

1	a)	What is AWS?	[L1,CO3]	[2M]
	b)	What is Google Cloud Platform?	[L1,CO3]	[2M]
	c)	What is Microsoft Azure?	[L1,CO3]	[2M]
	d)	What is Python Map Reduce?	[L1,CO3]	[2M]
	e)	Define image-processing app.	[L1,CO3]	[2M]
2	a)	Determine how Python is used in AWS.	[L3,CO3]	[5M]
	b)	Discuss how Python is used in Google Cloud.	[L3,CO3]	[5M]
3	a)	Examine Python support for MapReduce.	[L3,CO3]	[5M]
	b)	Devise Python for windows Azure.	[L4,CO3]	[5M]
4		Discriminate Python packages used in cloud computing.	[L5,CO3]	[10M]
5		Classify Python web Application Frame work.	[L4,CO3]	[10M]
6		Generalize the design of a Python-based cloud application.	[L6,CO3]	[10M]
7	a)	Dissect the steps to design a simple RESTful API using Python.	[L4,CO3]	[5M]
	b)	Justify the Design Approaches for Cloud Application Development in Python.	[L6,CO3]	[5M]
8	a)	Develop the Image Processing APP.	[L4,CO3]	[5M]
	b)	Maximize the document storage app.	[L6,CO3]	[5M]
9		Prioritize the Social Media Analytics App.	[L5,CO3]	[10M]
10		Organize the Map Reduce App.	[L5,CO3]	[10M]
11		Write a Python Map Reduce Program to count Word occurrences in a Text file.	[L6,CO3]	[10M]

**UNIT IV**  
**BIG DATA, MULTIMEDIA AND TUNING**

1	a)	What is Big Data?	[L1,CO4]	[2M]
	b)	Define clustering.	[L1,CO4]	[2M]
	c)	What is multimedia cloud?	[L1,CO4]	[2M]
	d)	What is video streaming?	[L4,CO4]	[2M]
	e)	What is Hadoop benchmarking?	[L1,CO4]	[2M]
2		Examine clustering and classification in Big Data.	[L3,CO4]	[10M]
3	a)	Describe a simple live video streaming application.	[L2,CO4]	[5M]
	b)	Express video transcoding in cloud computing.	[L3,CO4]	[5M]
4		Classify workload characteristics?	[L4,CO4]	[10M]
5		Generalize Design Considerations for a Benchmarking Methodology.	[L6,CO4]	[10M]
6	a)	Devise the benchmarking tools for cloud computing.	[L4,CO4]	[5M]
	b)	Discriminate application performance metrics.	[L5,CO4]	[5M]
7	a)	Discuss Bottleneck Detection case Study.	[L3,CO4]	[5M]
	b)	Justify Streaming Protocols in cloud computing.	[L6,CO4]	[5M]
8	a)	Maximize Deployment Prototyping for cloud computing.	[L6,CO4]	[5M]
	b)	Dissect Load testing. Briefly Explain it.	[L4,CO4]	[5M]
9		Organize multimedia cloud with case studies.	[L5,CO4]	[10M]
10		Prioritize cloud application benchmarking and Hadoop benchmarking.	[L5,CO4]	[10M]
11		How does Big Data analytics handle multimedia data (images, audio and video) and What challenges arise in storing, Processing and Tuning such Data for Performance.	[L2,CO4]	[10M]

## UNIT V

### APPLICATIONS AND ISSUES IN CLOUD

1	a)	What is cloud security?	[L1,CO5]	[2M]
	b)	Define authentication and Authorization.	[L1,CO5]	[2M]
	c)	What is organizational readiness?	[L1,CO5]	[2M]
	d)	What is change management?	[L1,CO5]	[2M]
	e)	What is data privacy?	[L1,CO5]	[2M]
2		Construct the CSA Cloud Security Architecture.	[L6,CO5]	[10M]
3		Develop Identity Access Management.	[L6,CO5]	[10M]
4	a)	Classify authentication in cloud computing.	[L4,CO5]	[5M]
	b)	Justify authorization in cloud computing.	[L5,CO5]	[5M]
5	a)	Discuss cloud computing in education.	[L3,CO5]	[5M]
	b)	Determine cloud computing in healthcare.	[L3,CO5]	[5M]
6	a)	Discriminate the seven-step cloud migration model.	[L5,CO5]	[5M]
	b)	Dissect the Broad Approaches to migrating into the cloud.	[L4,CO5]	[5M]
7		Design the cloud security architecture.	[L6,CO5]	[10M]
8		Devise common change management models.	[L4,CO5]	[10M]
9		Generalize the cloud contracting models.	[L6,CO5]	[10M]
10		Examine the Jurisdictional issues raised by virtualization.	[L3,CO5]	[10M]
11	a)	Explain the Importance of Data Privacy and Security in Cloud Environments.	[L2,CO1]	[5M]
	b)	Examine Auditing in Cloud Security.	[L3,CO5]	[5M]

**Prepared by**

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