Course Code: 23CS0524 **R23**

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,CO5]**	**[2M]**
	c)	What is virtualization?	**[L1,CO1]**	**[2M]**
	d)	What is scalability and elasticity?	**[L1,CO1]**	**[2M]**
	e)	What is load balancing?	**[L1,CO1,CO2]**	**[2M]**
2	a)	Explain the characteristics of cloud computing.	**[L2,CO5]**	**[5M]**
	b)	Discuss cloud deployment models with examples.	**[L2,CO1]**	**[5M]**
3		Justify cloud models and cloud services with examples.	**[L5,CO5]**	**[10M]**
4	a)	Examine cloud computing services.	**[L4,CO5]**	**[5M]**
	b)	Classify cloud storage services	**[L4,CO3,CO5]**	**[5M]**
5	a)	Devise Map Reduce in cloud computing.	**[L4,CO6]**	**[5M]**
	b)	Classify the cloud Service level Agreements	**[L4,CO1,CO5]**	**[5M]**
6	a)	What is IAM? Explain its Characteristics.	**[L2,CO5]**	**[5M]**
	b)	Prioritize the following cloud concepts (i)Deployment (ii) Replication (iii) Monitoring	**[L4,CO1,CO3]**	**[5M]**
7		Discriminate cloud services such as compute, storage, analytics, IAM.	**[L5,CO5]**	**[10M]**
8		Discuss virtualization, load balancing, scalability, elasticity.	**[L3,CO1]**	**[10M]**
9		Generalize the Identity and Access Management services	**[L6,CO5]**	**[10M]**
10		Discriminate (i) Database Services(ii) Application Services	**[L5,CO5]**	**[10M]**
11	a)	Define Billing and Describe its Key components in an organization	**[L1,CO1,CO5]**	**[5M]**
	b)	Differentiate Type-I Hypervisor and Type-II Hypervisor with examples	**[L4,CO1]**	**[5M]**

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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,CO1]**	**[2M]**
	c)	What is file handling?	**[L1,CO2,CO3]**	**[2M]**
	d)	Define (i) Scheduler. (ii) Package.	**[L1,CO2]**	**[2M]**
	e)	What is Map Reduce?	**[L1,CO6]**	**[2M]**
2		Examine Python basics: types, flow, functions, modules.	**[L2,CO2]**	**[10M]**
3		Devise Hadoop architecture and MapReduce.	**[L1,CO6]**	**[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,CO6]**	**[5M]**
	b)	Discuss the components of a Hadoop cluster setup.	**[L4,CO1]**	**[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,CO3]**	**[5M]**
	b)	Prioritize the File handling in Python.	**[L5,CO2,CO3]**	**[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,CO6]**	**[10M]**

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UNIT III
PYTHON FOR CLOUD COMPUTING

1	a)	What is AWS?	**[L1,CO5]**	**[2M]**
	b)	What is Google Cloud Platform?	**[L1,CO5]**	**[2M]**
	c)	What is Microsoft Azure?	**[L1,CO5]**	**[2M]**
	d)	What is Python Map Reduce?	**[L1,CO6]**	**[2M]**
	e)	Define image-processing app.	**[L1,CO2]**	**[2M]**
2	a)	Determine how Python is used in AWS.	**[L3,CO2,CO5]**	**[5M]**
	b)	Discuss how Python is used in Google Cloud.	**[L3,CO2,CO5]**	**[5M]**
3	a)	Examine Python support for MapReduce.	**[L3,CO6]**	**[5M]**
	b)	Devise Python for windows Azure.	**[L4,CO2,CO5]**	**[5M]**
4		Discriminate Python packages used in cloud computing.	**[L5,CO5,CO2]**	**[10M]**
5		Classify Python web Application Frame work.	**[L4,CO2]**	**[10M]**
6		Generalize the design of a Python-based cloud application.	**[L6,CO2]**	**[10M]**
7	a)	Dissect the steps to design a simple RESTful API using Python.	**[L4,CO2]**	**[5M]**
	b)	Justify the Design Approaches for Cloud Application Development in Python.	**[L6,CO2]**	**[5M]**
8	a)	Develop the Image Processing APP.	**[L4,CO2,CO6]**	**[5M]**
	b)	Maximize the document storage app.	**[L6,CO2,CO3]**	**[5M]**
9		Prioritize the Social Media Analytics App.	**[L5,CO2,CO3]**	**[10M]**
10		Organize the Map Reduce App.	**[L5,CO2,CO6]**	**[10M]**
11		Write a Python Map Reduce Program to count Word occurrences in a Text file.	**[L6,CO3]**	**[10M]**

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UNIT IV
BIG DATA, MULTIMEDIA AND TUNING

1	a)	What is Big Data?	**[L1,CO5]**	**[2M]**
	b)	Define clustering.	**[L1,CO6]**	**[2M]**
	c)	What is multimedia cloud?	**[L1,CO5]**	**[2M]**
	d)	What is video streaming?	**[L4,CO5]**	**[2M]**
	e)	What is Hadoop benchmarking?	**[L1,CO5]**	**[2M]**
2		Examine clustering and classification in Big Data.	**[L3,CO6]**	**[10M]**
3	a)	Describe a simple live video streaming application.	**[L2,CO2]**	**[5M]**
	b)	Express video transcoding in cloud computing.	**[L3,CO2]**	**[5M]**
4		Classify workload characteristics?	**[L4,CO5]**	**[10M]**
5		Generalize Design Considerations for a Bench marking Methodology.	**[L6,CO2,CO5]**	**[10M]**
6	a)	Devise the benchmarking tools for cloud computing.	**[L4,CO2,CO5]**	**[5M]**
	b)	Discriminate application performance metrics.	**[L5,CO5]**	**[5M]**
7	a)	Discuss Bottleneck Detection case Study.	**[L3,CO4]**	**[5M]**
	b)	Justify Streaming Protocols in cloud computing.	**[L6,CO2,CO5]**	**[5M]**
8	a)	Maximize Deployment Prototyping for cloud computing.	**[L6,CO2]**	**[5M]**
	b)	Dissect Load testing. Briefly Explain it.	**[L4,CO5]**	**[5M]**
9		Organize multimedia cloud with case studies.	**[L5,CO2,CO5]**	**[10M]**
10		Prioritize cloud application benchmarking and Hadoop benchmarking.	**[L5,CO2,CO5]**	**[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,CO3,CO5,CO6]**	**[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,CO1,CO4]**	**[2M]**
	d)	What is change management?	**[L1,CO1,CO4]**	**[2M]**
	e)	What is data privacy?	**[L1,CO5]**	**[2M]**
2		Construct the CSA Cloud Security Architecture.	**[L6,CO2]**	**[10M]**
3		Develop Identity Access Management.	**[L6,CO2,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,CO2,CO5]**	**[5M]**
	b)	Determine cloud computing in healthcare.	**[L3,CO2,CO5]**	**[5M]**
6	a)	Discriminate the seven-step cloud migration model.	**[L5,CO2,CO4]**	**[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,CO2]**	**[10M]**
9		Generalize the cloud contracting models.	**[L6,CO2,CO5]**	**[10M]**
10		Examine the Jurisdictional issues raised by virtualization.	**[L3,CO1,CO5]**	**[10M]**
11	a)	Explain the Importance of Data Privacy and Security in Cloud Environments.	**[L2,CO3,CO5]**	**[5M]**
	b)	Examine Auditing in Cloud Security.	**[L3,CO5]**	**[5M]**

Prepared by

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