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Question Bank for the Units – I to V

SEM-05	**Vth Semester – B.E.**
BR-104	**Department of Artificial Intelligence and Data Science**
CCS335	**CLOUD COMPUTING**

UNIT I CLOUD ARCHITECTURE MODELS AND INFRASTRUCTURE

Cloud Architecture: System Models for Distributed and Cloud Computing – NIST Cloud Computing Reference Architecture – Cloud deployment models – Cloud service models; Cloud Infrastructure: Architectural Design of Compute and Storage Clouds – Design Challenges

PART – A

Q.No.	Questions	BT Level	Competence
1	What is Cloud Computing.	BTL1	Remembering
2	What is P2P network?	BTL1	Remembering
3	What is Community Cloud?	BTL1	Remembering
4	Difference between Grid and Cloud Computing?	BTL4	Analyzing
5	What is CSB?	BTL1	Remembering
6	Explain SOA with its applications?	BTL2	Understanding
7	Differentiate HPC and HTC?	BTL4	Analyzing
8	What is the difference between parallel and distributed computing?	BTL4	Remembering
9	What is Cloud provider?	BTL1	Remembering
10	List some Examples of Private Cloud.	BTL3	Applying
11	List some Examples of Public Cloud.	BTL3	Applying
12	What is Solution stack?	BTL1	Remembering
13	What is the Limitation of SAAS?	BTL2	Understanding
14	List the major design goals of a cloud computing platform.	BTL4	Analyzing
15	What is the role of VM Monitor?	BTL1	Remembering

PART – B

1	Explain in detail about NIST Architecture.	BTL1	Remembering
2	Briefly explain about Cloud Service models	BTL1	Remembering
3	Explain in detail about Architectural Design of Compute and Storage Clouds.	BTL2	Understanding
4	Briefly explain about Cloud deployment models	BTL1	Remembering

5	Classify the following computing environments: a) Centralized computing c) Distributed computing b) Parallel computing d) Cloud computing	**BTL4**	**Remembering**
6	a) Give a brief note on the following: Evolution of SaaS? b) Challenges of SaaS	**BTL2**	**Understanding**
7	Explain in detail about Layered Architectural Development of Cloud Platform.	**BTL2**	**Understanding**

UNIT II VIRTUALIZATION BASICS

Virtual Machine Basics – Taxonomy of Virtual Machines – Hypervisor – Key Concepts – Virtualization structure – Implementation levels of virtualization – Virtualization Types: Full Virtualization – Para Virtualization – Hardware Virtualization – Virtualization of CPU, Memory and I/O devices.

PART – A

1	What is virtualization?	**BTL1**	**Remembering**
2	What is virtual Machine?	**BTL1**	**Remembering**
3	What are the advantages of virtual Machine?	**BTL2**	**Understanding**
4	What is instruction set Architecture?	**BTL1**	**Remembering**
5	What is hardware abstraction layer level?	**BTL1**	**Remembering**
6	What is ISA Level?	**BTL1**	**Remembering**
7	What are the levels of VMM?	**BTL2**	**Understanding**
8	List the types of Server Virtualization.	**BTL4**	**Analyzing**
9	What is Hypervisor?	**BTL1**	**Remembering**
10	What is Paravirtualization?	**BTL1**	**Remembering**
11	What is OS Level Virtualization?	**BTL1**	**Remembering**
12	What is API Emulation?	**BTL1**	**Remembering**
13	What are the disadvantages of virtualization?	**BTL2**	**Understanding**
14	What is KVM?	**BTL1**	**Remembering**
15	Explain ESX Server.	**BTL1**	**Remembering**

PART – B

1	Describe hypervisor, type of hypervisor with neat diagram	**BTL1**	**Remembering**
2	Explain the Binary translation Concept with neat sketch.	**BTL2**	**Understanding**
3	Explain the Para-Virtualization with Compiler Support with neat Sketch.	**BTL2**	**Understanding**
4	Explain the Concept of Implementation levels of Virtualization.	**BTL2**	**Understanding**
5	Explain the Full Virtualization with neat sketch.	**BTL2**	**Understanding**

UNIT-III - VIRTUALIZATION INFRASTRUCTURE AND DOCKER			
Desktop Virtualization – Network Virtualization- Storage Virtualization – System-level of Operating Virtualization- Application Virtualization- Virtual clusters and Resource Management – Containers vs. Virtual Machines- Introduction to Docker – Docker Components- Docker Container- Docker Images and Repositories.			
PART – A			
1	What is storage virtualization in cloud computing?	**BTL1**	**Remembering**
2	What is networking virtualization?	**BTL1**	**Remembering**
3	What is virtual desktop infrastructure?	**BTL1**	**Remembering**
4	What are the three key components of virtual desktop infrastructure?	**BTL4**	**Analyzing**
5	What is cloud analytics?	**BTL1**	**Remembering**
6	What is file level storage virtualization?	**BTL1**	**Remembering**
7	What is Docker?	**BTL1**	**Remembering**
8	What is Container?	**BTL1**	**Remembering**
9	What is Kubernetes?	**BTL1**	**Remembering**
10	What are the benefits of storage virtualization?	**BTL2**	**Understanding**
11	Differentiate the Block Level and File Level Virtualization.	**BTL4**	**Analyzing**
12	What are the benefits of Desktop virtualization?	**BTL2**	**Understanding**
13	What are the types of Desktop Virtualization?	**BTL2**	**Understanding**
14	What is virtual Cluster?	**BTL1**	**Remembering**
PART – B			
1	Explain about Desktop Virtualization? Explain types of desktop virtualization.	**BTL2**	**Understanding**
2	What is Block level virtualization? Explain it briefly.	**BTL1**	**Remembering**
3	What is File level virtualization? Explain it briefly.	**BTL1**	**Remembering**
4	Discuss briefly about Virtual Clusters and Resource management.	**BTL4**	**Remembering**
5	Explain the concept of Storage level Virtualization.	**BTL1**	**Remembering**
6	Explain the architecture of Kubernetes briefly.	**BTL1**	**Remembering**
7	What is docker? Explain docker architecture.	**BTL1**	**Remembering**

UNIT-IV - CLOUD DEPLOYMENT ENVIRONMENT			
Google App Engine - Amazon AWS - Microsoft Azure - Cloud Software Environments – Eucalyptus - OpenStack.			
PART – A			
1	What is Amazon Web Service?	**BTL1**	**Remembering**
2	What is AWS ecosystem?	**BTL1**	**Remembering**
3	What do you understand by third party cloud services?	**BTL2**	**Understanding**
4	What is eucalyptus?	**BTL1**	**Remembering**
5	List the features of eucalyptus.	**BTL3**	**Applying**
6	What is azure queues?	**BTL1**	**Remembering**
7	How virtualization employed in azure?	**BTL4**	**Analyzing**
8	List the feature of GAE.	**BTL4**	**Analyzing**
9	What are the advantages of Eucalyptus?	**BTL2**	**Understanding**
10	What is AMI.	**BTL1**	**Remembering**
PART – B			
11	Write short Notes on Microsoft Azure.	**BTL1**	**Remembering**
12	Write short Notes on GAE.	**BTL1**	**Remembering**
13	Write short Notes on Eucalyptus.	**BTL1**	**Remembering**
14	Write short Notes on Open Stack.	**BTL1**	**Remembering**
15	What is EC2 instances? Explain configuring Amazon EC2 Linux instances.	**BTL2**	**Understanding**
UNIT-V - CLOUD SECURITY			
Virtualization System-Specific Attacks: Guest hopping - VM migration attack – hyper jacking - Data Security and Storage; Identity and Access Management (IAM) - IAM Challenges -IAM Architecture and Practice.			
PART – A			
1	Define cloud security.	**BTL1**	**Remembering**
2	Discuss the different Cloud security services.	**BTL4**	**Remembering**
3	How security policies are implemented on cloud computing?	**BTL2**	**Understanding**
4	What is multitenancy issue in cloud computing?	**BTL2**	**Understanding**
5	Discuss the problem associated with cloud computing.	**BTL4**	**Remembering**
6	What do you understand by virtualization security management?	**BTL2**	**Understanding**

7	What is the difference between identify and access management?	**BTL4**	**Analyzing**
8	What is AWS identity and access management?	**BTL1**	**Remembering**
10	What is the Limitation of IAM.	**BTL2**	**Understanding**
11	List the types of Security Policies.	**BTL4**	**Analyzing**
PART – B			
1	Discuss about identity and access management.	**BTL4**	**Remembering**
2	Explain in detail about cloud security services.	**BTL1**	**Remembering**
3	Explain guest- hopping attack and hyper jacking.	**BTL1**	**Remembering**
4	Discuss cloud security challenges and risks.	**BTL4**	**Analyzing**
5	Explain in detail about Virtualization system – specific Attacks.	**BTL1**	**Remembering**