

CC

Unit-1

- ①. Draw NIST cloud model & discuss
- ②. 3 Storage Services Offered by AWS
- ③. Responsibility Sharing b/w user & Cloud Service provider
- ④. Discuss Network Centric Computing & Content with characteristics, adv
- ⑤. Architectural view of Services provided by AWS
6. Architecture of Windows Azure
- ⑦. Cloud Computing delivery models (SaaS, PaaS, IaaS)
- ⑧. RAID-5 technology → how it can be used
9. Discuss reasons for success and challenges of CC.

Unit-2

Parallel b/w workflows and programs

- ① Parallel b/w workflows and programs
- ② Describe the map-reduce philosophy with diagram
- ③ Organisation of ZooKeeper & processing of read/write operation
- ④ Illustrate how BigJob Software can be used for execution of loosely coupled workloads.
- ⑤ Basic workflow patterns
- ⑥ Steps in the workflow of GrepTheWeb (Organization)
- ⑦ Illustrate how Cirrus platform help in executing legacy binaries
- ⑧ Phases in the life cycle of workflow

Unit-3

- ① Different layers, interfaces in a Computer System
- ② Discuss how issues in paravirtualisation have been solved & implemented on x86-64 (Titanium-3D) architecture
- ③ Compare with diagram compilation process of an HLL program & portable code
- ④ New strategies adopted by Xen with optimized new architecture
- ⑤ Describe Traditional, Hybrid & Hosted Vms
- ⑥ Problems faced in virtualization of x86 architecture
- ⑦ Conditions of efficient virtualization. basic approaches to Processor Virtualisation
- ⑧ Xen Zero Copy Semantics for data transfer.
- ⑨ How virtualization simulates the interface of a physical object

Unit-4

- ① Describe using Schematics the ASCA Combinatorial algo
- ② Illustrate w/ how Coordination b/w autonomic System can be utilised for cloud resource management
- ③ Policies for Cloud Resource Management (CRM)
- ④ Conditions of the pricing & allocation algo.
- ⑤ SFQ → numerical / Describe
- ⑥ Two-level ~~as~~ control architecture for autonomic resource management
- ⑦ timing diagrams (OPR) & (EPR)
8. Utility function when the performance metric is response time
9. Illustrate how Control theory principles could be used for optimal resource allocation
10. Illustrate fair queuing method.

Unit-5

- ① Config diagram of (GPFS)
- ② diagram of attacks in CC environment
- ③ design philosophy of Megastore with org diagram
- ④ Design a Hadoop Cluster using HDFS with diagram
- ⑤ Architecture of (GFS) Cluster
- ⑥ describe how Security Services provided by WMM can be extended
- ⑦ Two abstract models of storage
8. Paxos algo → phases, diagram of Chubby Replica Arch
9. Discuss threats identified by NIST project
10. Illustrate → Security, Trust, Privacy → short notes
11. Layered design of UFS → characteristics