CLOUD COMPUTING – QUESTION & ANSWER BANK

(2-Mark, 3-Mark, 4-Mark)

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UNIT 1 – CLOUD COMPUTING OVERVIEW

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2-MARK QUESTIONS

Q1. Define Cloud Computing.

A. Cloud computing is the delivery of computing services such as storage, servers, databases, networking, and software over the internet.

Q2. What are the essential characteristics of cloud computing?

A. On-demand self-service, broad network access, resource pooling, rapid elasticity, and measured service.

Q3. What is SaaS?

A. SaaS (Software as a Service) provides ready-to-use software applications hosted on the cloud.

3-MARK QUESTIONS

Q1. Explain Public, Private, and Hybrid cloud.

A. Public – Services over the internet.

Private – Dedicated environment for single organization.

Hybrid – Mix of public + private for flexibility.

Q2. List any three advantages of cloud.

A. Scalability, cost efficiency, high availability, data recovery, global accessibility.

4-MARK QUESTIONS

Q1. Explain the early history of cloud computing.

A. Started from mainframes → virtualization → distributed computing → grid computing → evolved to modern cloud platforms like AWS.

Q2. What are the risks in cloud computing?

A. Downtime, vendor lock-in, security threats, privacy concerns, limited control over infrastructure.

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UNIT 2 – OPERATING SYSTEMS & VIRTUALIZATION

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2-MARK QUESTIONS

Q1. What is an Operating System?

A. OS manages hardware, processes, memory, and provides services to applications.

Q2. What is AMI?

A. Amazon Machine Image used to launch EC2 instances with pre-configured OS and apps.

3-MARK QUESTIONS

Q1. Explain EC2 instance types.

A. Types include General Purpose, Compute Optimized, Memory Optimized, Storage Optimized, and GPU instances.

Q2. What is Auto Scaling?

A. Auto Scaling automatically increases or decreases EC2 capacity based on load.

4-MARK QUESTIONS

Q1. Explain virtualization in AWS.

A. AWS uses hypervisors to run virtual machines, supports containers, VMware on AWS, and VM import/export.

Q2. Explain Elastic IP.

A. A static IPv4 address assigned to your AWS account to handle instance/zone failure.

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UNIT 3 – AWS STORAGE SERVICES

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2-MARK QUESTIONS

Q1. Types of storage?

A. Object, block, and file storage.

Q2. List S3 storage classes.

A. Standard, Intelligent-Tiering, Glacier, Deep Glacier.

3-MARK QUESTIONS

Q1. Explain two features of S3.

A. Versioning, lifecycle management, unlimited scalability, static website hosting.

Q2. What is EFS?

A. Elastic File System offering scalable file storage for EC2 instances.

4-MARK QUESTIONS

Q1. Explain AWS Backup.

A. Centralized automated backup service with policies, scheduling, restoration, and monitoring.

Q2. Storage Gateway types.

A. File Gateway, Tape Gateway, Volume Gateway.

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UNIT 4 – AWS DATABASE & MIGRATION

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2-MARK QUESTIONS

Q1. What is cloud migration?

A. Moving applications/data from on■premises to cloud.

Q2. Define DynamoDB.

A. A fully managed NoSQL key-value/document database.

3-MARK QUESTIONS

Q1. Explain features of RDS.

A. Automated backups, Multi-AZ, read replicas, easy monitoring, multiple database engines.

Q2. What are 6R migration strategies?

A. Rehost, Replatform, Repurchase, Refactor, Retire, Retain.

4-MARK QUESTIONS

Q1. Explain Aurora Serverless.

A. Auto-scaling version of Aurora database that adjusts capacity based on usage.

Q2. Explain AWS SCT.

A. Schema Conversion Tool converts database schemas between engines and assists AWS DMS migrations.

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UNIT 5 – AWS NETWORKING & SECURITY

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2-MARK QUESTIONS

Q1. Define VPC.

A. A logically isolated virtual network in AWS.

Q2. What is IAM?

A. Identity and Access Management for secure user roles, permissions, and authentication.

3-MARK QUESTIONS

Q1. What is CloudFront?

A. Global CDN for fast content delivery.

Q2. What are Security Groups?

A. Firewalls that control inbound/outbound traffic for EC2 instances.

4-MARK QUESTIONS

Q1. Features of Route 53.

A. DNS resolution, routing policies, health checks, domain registration, global scalability.

Q2. Explain VPC architecture components.

A. Subnets, route tables, internet gateway, NAT gateway, ACLs, security groups, VPC endpoints.

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UNIT 6 – SOFTWARE DEVELOPMENT ON AWS

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2-MARK QUESTIONS

Q1. What is AWS CLI?

A. Command-line tool to manage AWS services.

Q2. What is AWS SDK?

A. Language-specific libraries to interact with AWS services programmatically.

3-MARK QUESTIONS

Q1. Define software architecture.

A. Structure and organization of software components and interactions.

Q2. AWS Tools for PowerShell.

A. Enables automation of AWS tasks using PowerShell commands.

4-MARK QUESTIONS

Q1. Explain Node.js AWS SDK usage.

A. Provides APIs for building serverless/back-end applications using AWS services.

Q2. Scripting support in AWS.

A. Supports JS, PHP, Ruby with SDKs for automation, deployment, event-handling, and AWS integration.

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