SAA-C03 Cheat Sheet

High-yield AWS Solutions Architect Associate review for the last pass before practice tests.

BEST FOR	FOCUS	USE WITH
Last review before mini test or app session	Core architecture choices, security, resilience, and cost	Quick Summary + Service Map

1. Identity and secure access

IAM vs IAM Identity Center — IAM manages users, roles, and policies inside an account; Identity Center is preferred for workforce access across multiple AWS accounts.

Role assumption — Use roles for temporary credentials between services, accounts, or identities instead of long-term access keys.

Resource policies — S3 buckets, KMS keys, and some other services can allow or deny access directly at the resource layer.

Least privilege — Start narrow, scope actions/resources, and add conditions such as source VPC endpoint or MFA where possible.

KMS basics — Use customer managed keys when you need rotation control, key policies, grants, or cross-account design.

2. Resilience and availability

Multi-AZ — Use across at least two AZs for high availability inside one Region.

Backup vs replication — Backups protect from deletion/corruption; replication improves recovery time and access locality.

Route 53 failover — Use health checks and failover routing to shift traffic during outages.

SQS decoupling — Queues absorb spikes and isolate failure domains between producers and consumers.

RTO vs RPO — RTO = restore time target; RPO = acceptable data loss window.

3. Compute, storage, and network choices

EC2 — Pick when you need OS control, custom networking, or steady-state compute.

Lambda — Best for event-driven bursts, short tasks, and reduced server management.

ECS vs EKS — ECS is simpler AWS-native orchestration; EKS fits Kubernetes standardization requirements.

EFS vs FSx vs S3 — EFS = shared POSIX files, FSx = managed file systems with specific protocols, S3 = object storage.

NAT Gateway — Lets private subnets reach the internet without exposing inbound access.

4. High-performance design

Caching — Use CloudFront, ElastiCache, or DynamoDB DAX when repeated reads dominate latency.

Read replicas — Improve read scale for relational databases; they are not the same as Multi-AZ durability.

Placement groups — Use cluster placement for low-latency HPC-style workloads in one AZ.

S3 multipart upload — Improves transfer efficiency for large objects.

Kinesis family — Use streaming services when you need near-real-time ingestion and processing.

5. Cost optimization patterns

Right-size first — Eliminate idle resources, overprovisioned instances, and unused volumes before buying commitments.

Savings Plans — Use for steady compute usage across EC2, Fargate, or Lambda depending on plan type.

S3 lifecycle — Move infrequently accessed objects to lower-cost classes automatically.

Managed services — Reduce operational overhead and hidden admin cost when requirements allow.

Data transfer — Cross-AZ and cross-Region traffic can dominate architecture cost questions.