

**Scenario:**

A multinational company has an on-premises data center and wants to establish a secure, low-latency connection to its AWS VPC. The company is considering AWS Site-to-Site VPN and AWS Direct Connect.

**Q2: Compare and contrast Site-to-Site VPN and AWS Direct Connect for this use case. Which option would you recommend and why?** [5+5 Marks]

**Scenario:**

A startup is running a web application on an m5.large EC2 instance, but they are experiencing low CPU utilization (~15%) and high AWS costs.

**Q3: Suggest two cost-optimized solutions to reduce costs without affecting performance. Justify your recommendations.** [10 Marks]

**Scenario:**

A video streaming company stores large media files in Amazon S3. The videos are:

- Frequently accessed for the first 30 days
- Infrequently accessed after that
- Archived after one year.

**Q4: How would you design an S3 lifecycle policy to minimize storage costs while ensuring availability based on usage patterns?** [10 Marks]