**70-535 (Azure Architecting)**

**Section 1:**

**Area 1:**

Leverage availability sets

Fault Domains

Update Domains (These are available in 70-534)

Use WebApp for Containers

Design Scale Sets

Use Azure Batch

Design Migration Strategies

Use Azure Backup and Azure Site Recovery

**Design Solution for Serverless Computing**

Understand and Implement Azure Functions

Understand and Implement Azure Logic Apps

Design using Azure Containers

When to use API management service

**Area 2: Design Microservices-based Solutions**

Understand when to use

Container based solution

Container Orchestration

Azure Service Fabric

Azure Functions

API Management Service

Web PI

Understand when and why to use Microservices

Microservices vs. other deployment options

When to use containerization

Manage the Microservices lifecycle

**Area 3: Design Web Applications**

Design Azure App Service Web Apps for

Scalability and performance

Business Continuity

High availability leveraging multiple regions

Understand when to use which App Service Plan

Understand when to use Azure App Service Environment (ASE)

How to design a custom Web API

How to secure Web API

How to design for API Apps

Understand when to use API management service

Understand when to use Web Apps on Linux

Determine when to use CDN

Know when to use a cache, and Azure Redis Cache

**Area 4: Create Compute-Intensive Applications**

Know how to design high performance computing (HPC) and other compute-intensive applications using Azure Service

Design stateless components to accommodate scale

Design an Azure Batch Lifecycle strategies

Understand when to use Azure Batch

**Section 2: Design Data Implementation (15-20%)**

Area 1: Design for Azure Storage Solutions

Understand when the different storage solutions are to be used.

Azure Blob Storage

Blob tires

Azure Files

Disk

StorSimple

Area 2: Design for Azure Data Services

Understand when to use

Data catalog

Azure Data Factory

SQL Data Warehouse

Azure Data Lake Analytics

Azure Analysis Service

Azure HDInsight

Design for Relational Database Storage

Determine when to use Azure SQL Database and SQL Server Stretch Database

Determine when to use Azure Database for MySQL and Azure Database for PostgreSQL

Design for scalability and feature

Design for HA/DR and geo replication

Design a backup and recovery strategy

Area 3: Design for NoSql Storage

Understand when to use

Azure Redis Cache

Azure Table Storage

Azure Data Lake

Azure Search

Time Series Insights

Area 4: Design for Cosmos DB Storage

Know when to use

MongoDB API

DocumentDB API

Graph API

Azure Table API

Understand how to design Cosmos DB Storage for

Cost

Performance

Data Consistency

Availability

Business Continuity

**Section 3: Design Networking Implementation (15-20%)**

Area 1: Design Azure Virtual Networks

Understand and design for Azure Networking services

Load balancing using Azure Load Balancer and Azure Traffic Manager

Describe DNS, DHCP and IP Strategies

Hybrid and Cloud only

Know when to use

Azure Application Gateway

Multi node application gateways

Traffic Manager

Load Balancers

Area 2: Design external connectivity for Azure VNets

Know when to use

Azure VPN

ExpressRoute

Understand Virtual Network Peering architecture and design

Understand when to use user-defined routes (UDRs)

Decide when to use VPN Gateway site-to-site failover for ExpressRoute

Area 3: Design Security Strategy

Know when to use network virtual appliances

Plan a perimeter network (DMZ)

Understand when to use a

Network Security Group (NSG)

Web Application Firewall (WAF)

Virtual Network service tunnelling

Area 4: Design Connectivity for Hybrid Applications

Plan connectivity to on-premises data from Azure applications using

Azure Relay service

Hybrid connections

Azure Web Apps virtual private network

Azure Data Management gateway for Data Factory

Azure on-premises data gateway

Recognize constraints for connectivity with VPN

Identify options for joining VMs to domains

**Section 4: Design Security and Identity Solutions (20-25%)**

Area 1: Design and Identity Solution

Design and AD connect synchronization solution

Plan federated identities using Active Directory Federation Services (AD FS)

Plan solutions for multifactor authentications (MFA)

Architect using Active Directory on-premises and Azure Active Directory (AAD)

Know when to use Azure AD Domain Services

Understand how to secure Mobile Apps using Azure AD

Area 2: Secure Resources by using Identity Providers

Plan a solution using external or consumer identity providers

Microsoft Account

Facebook

Google

Yahoo

Know when to use Azure AD B2C and Azure B2B

Plan mobile Apps using Azure AD B2C or Azure AD B2B

Area 3: Design a Data Security Solutions

Understand when to use

Azure storage encryption

Azure Disk Encryption

Know Azure SQL Database security capabilities

Plan solutions that Azure AD Managed Service Identity

Implements the Azure KeyVaults

Design for

Protecting secrets in ARM template

Protecting application secrets

A Solution for managing certificates

Area 4: Design a mechanism for governance and policies for administrating Azure Resources

Understand when to use Azure RBAC roles

Standard and Customs

Plan and Azure RBAC strategy

Know when to use Azure Resource policies

Understanding Azure AD Privileged Identity Management

Planning solutions that use Azure AD Managed Service Identity

Knowing when to use HSM-backed key

Area 4: Manage Security Risks by using an appropriate security solution

Use the Azure security center, Operations management suite security and Audit solutions, other services to identify assess, mitigate security risk

Understand when to use

Azure AD Identity Protection

Advanced threat detection

Plan an appropriate endpoint protection strategy

**Section 5: Design solutions by using Platform Services (10-15%)**

Area 1: Design for Artificial Intelligence Services

Understand when to use

Cognitive services

Azure Bot Services

Azure Machine Learning

Other Cognitive AI Categories

Area 2: Design for IoT

Stream analytics

IoT hub

Event Hubs

Real time analytics

Time Series Insights

IoT Edge

Notification Hubs

Event Grid

Other IoT categories

Area 3: Design Messaging Solutions Architectures

Azure storage queue

Azure Service Bus

Azure Event Hubs

Event Grid

Azure Relay

Azure Functions

Azure Logic Apps

Design a Push notification strategy for Mobile Apps

Understand the performance and Scale

Area 3: Design for Media Service Solutions

Understand solutions using

Azure Media Services

Video Indexers

Video API

Computer Vision API

Preview

Media related services

**Section 6: Design for Operations**

Area 1: Design and Application Monitoring and Alerting Strategy

Know which Microsoft product and services can be used for monitoring applications on Azure

Understand Azure Log Analytics and how to define solutions for analysing logs and enabling alerts

Know which Microsoft products and services can be used for monitoring applications on Azure

Know how to use applications Insights to create a solution for monitoring applications and enabling alerts

Determine the appropriate Microsoft products and services for monitoring Azure Platform solutions

Use Azure health, Azure advisor, and activity logs to create a monitoring solution

Create a monitoring solution for Azure networks using log Analytics and network watcher service

Use Azure security center to monitor security

Area 2: Design an operations Automation Strategy

Azure Automation

Chef

Puppet

PowerShell

Desired State Configuration (DSC)

Event Grid

Azure Logic Apps

Create a strategy for auto scaling

Create a strategy for enabling periodic processes and tasks