TEST 1

1.Every region in Azure cloud includes multiple data centres.

> TRUE (A region represents a set of data centres deployed within a latency-defined perimeter and connected through a dedicated regional low-latency network.)

2.Data transfer between Azure services located in two different regions is always free.

>FALSE (Outbound data transfer is charged at the normal rate and inbound data transfer is free. The pricing rule that you should keep in mind is this: outbound traffic (leaving Azure cloud or an Azure region) is NOT free, inbound traffic is free.)

3.Azure resources inherit locks from the resource group they are part of.

>TRUE (When you apply a lock at a parent scope, all resources within that scope inherit the same lock. Even resources you add later inherit the lock from the parent.)

4.If your VM has a Read-only lock applied, you can add a Delete lock as well.

>TRUE (This is indeed possible. Read-Only Lock means authorised users can read a resource, but they can't delete or update the resource. Delete Lock means authorised users can still read and modify a resource, but they can't delete the resource.)

5.An Azure subscription can be associated to multiple Azure Active Directory (Azure AD) tenants.

>FALSE (An Azure AD tenant can have multiple subscriptions but an Azure subscription can only be associated with one Azure AD tenant.)

6.You can modify the Azure Active Directory (Azure AD) tenant to which an Azure subscription is associated to.

>TRUE (Yes, the statement is true. An Azure subscription has a trust relationship with Azure Active Directory (Azure AD). A subscription trusts Azure AD to authenticate users, services, and devices. Multiple subscriptions can trust the same Azure AD directory. Each subscription can only trust a single directory.)

7.The Azure Active Directory (Azure AD) tenant is deleted by default when the Azure subscription expires.

>FALSE (If your subscription expires, you lose access to all the other resources associated with the subscription. However, the Azure AD directory remains in Azure. You can associate and manage the directory using a different Azure subscription.)

8.Your company has started migrating multiple services into Azure. You are the Azure Administrator responsible to deploy several custom applications to Azure.

Some of the applications that need to be migrated will have several prerequisite applications and services installed.

Which of the following cloud deployment models would you recommend?

>Infrastructure as a Services(IaaS) (Infrastructure as a service (IaaS) is an instant computing infrastructure, provisioned and managed over the internet. The IaaS service provider manages the infrastructure, while you purchase, install, configure, and manage your own software.)

Software as a service (SaaS) allows users to connect to and use cloud-based apps over the Internet.

Common examples are email, calendaring, and office tools. In this scenario, you need to run your own apps, and therefore require an infrastructure.

Platform as a service (PaaS) is a complete development and deployment environment in the cloud. PaaS includes infrastructure—servers, storage, and networking—but also middleware, development tools, business intelligence (BI) services, database management systems, and more. PaaS is designed to support the complete web application lifecycle: building, testing, deploying, managing, and updating.

9.Azure Cosmos DB is one of the many Azure popular services.What type of Azure service offering does it represent?

>PaaS

10.Europe is represented by a single Azure region.

> FALSE (Europe has several Azure regions, including North Europe, West Europe, UK West, Switzerland North and some others as well.)

11.Your company has decided to migrate all its services to Microsoft Azure. You need to deploy an Azure architecture and use only Platform as a Service (PaaS) services available in Azure.

Solution: You create an Azure App Service and Azure SQL databases.

Does this meet the goal?

>YES (Azure App Service and Azure SQL databases are examples of Azure PaaS solutions. Therefore, this solution does meet the goal.

Azure App Service is a PaaS service offering - managed production environment. App Service automatically patches and maintains the OS and language frameworks for you. Spend time writing great apps and let Azure worry about the platform.

Azure SQL Database is a fully managed platform as a service (PaaS) database engine that handles most of the database management functions such as upgrading, patching, backups, and monitoring without user involvement. Azure SQL Database is always running on the latest stable version of the SQL Server database engine and patched OS with 99.99% availability.

12.Your company has decided to migrate all its services to Microsoft Azure. You need to deploy an Azure architecture and use only Platform as a Service (PaaS) services available in Azure.

Solution: You create an Azure App Service and add Azure virtual machines to your setup.

Does this meet the goal?

>NO (Azure App Service is a PaaS (Platform as a Service) service. However, Azure virtual machines are an IaaS (Infrastructure as a Service) service. Therefore, this solution does not meet the goal.)

13.Your company has decided to migrate all its services to Microsoft Azure. You need to deploy an Azure architecture and use only Platform as a Service (PaaS) services available in Azure.

Solution: You create an Azure App Service and Azure Storage accounts.

Does this meet the goal?

>NO (Azure App Service is a PaaS (Platform as a Service) service. However, Azure Storage accounts are an IaaS (Infrastructure as a Service) service. Therefore, this solution does not meet the goal.)

14.Your company has decided to migrate all its services to Microsoft Azure. You need to deploy an Azure architecture and use only Platform as a Service (PaaS) services available in Azure.

Solution: You create Azure virtual machines, Azure SQL databases, and Azure Storage accounts.

Does this meet the goal?

>NO (Azure virtual machines and Azure Storage represent Azure Infrastructure as a Service (IaaS) service offering, therefore the solution does not meet the requirements.)

15.Azure Site Recovery provides **fault tolerance** for virtual machines.

>CORRECT -NO CHANGE NEEDED (Azure Site Recovery helps ensure business continuity by keeping business apps and workloads running during outages. Site Recovery replicates workloads running on physical and virtual machines (VMs) from a primary site to a secondary location.)

16.You decide to use version control for your software project.

Which of the following Azure services provides a set of version control tools to manage code?

>Azure Repos (Azure Repos is a set of version control tools that you can use to manage your code. Whether your software project is large or small, using version control as soon as possible is a good idea.)

17.Azure Monitor can monitor both cloud and on-premises environments.

>YES (Azure Monitor maximizes the availability and performance of your applications and services by delivering a comprehensive solution for collecting, analyzing, and acting on telemetry from your cloud and on-premises environments.)

18.Azure Monitor can trigger alerts based on data in an Azure Log Analytics workspace.

>YES (Azure Monitor uses Target Resource, which is the scope and signals available for alerting. A target can be any Azure resource. Example targets: a virtual machine, a storage account, a virtual machine scale set, a Log Analytics workspace, or an Application Insights resource.)

19.Azure Databricks is an Apache Spark-based analytics service.

>TRUE(Azure Databricks is an Apache Spark-based analytics platform optimized for the Microsoft Azure cloud services platform.)

20.Azure Monitor can send alerts to Azure action groups.

>TRUE (Alerts in Azure Monitor proactively notify you of critical conditions and potentially attempt to take corrective action. Alert rules in Azure Monitor use action groups, which contain unique sets of recipients and actions that can be shared across multiple rules.)

21.You received a new urgent task to create several Azure virtual machines in your Azure environment. Unfortunately, you are on holiday and you only have a tablet with you, that runs Android operating system.

Solution: You use Bash in Azure Cloud Shell.

>YES (With Azure Cloud Shell, you can create virtual machines using Bash or PowerShell. Azure Cloud Shell is an interactive, authenticated, browser-accessible shell for managing Azure resources. It provides the flexibility of choosing the shell experience that best suits the way you work, either Bash or PowerShell.)

22.You received a new urgent task to create several Azure virtual machines in your Azure environment. Unfortunately, you are on holiday and you only have a tablet with you, that runs Android operating system.

Solution: You use PowerShell in Azure Cloud Shell.

>YES (Azure Cloud Shell is a browser-based shell experience to manage and develop Azure resources. Cloud Shell offers a browser-accessible, pre-configured shell experience for managing Azure resources without the overhead of installing, versioning, and maintaining a machine yourself. Being browser-based, Azure Cloud Shell can be run on a browser from a tablet or mobile phone that runs the Android operating system.)

23.You received a new urgent task to create several Azure virtual machines in your Azure environment. Unfortunately, you are on holiday and you only have a tablet with you, that runs Android operating system.

Solution: You use the PowerApps portal.

>NO (PowerApps lets you quickly build business applications with little or no code. It is not used to create Azure virtual machines. Therefore, this solution does not meet the goal.

PowerApps Portals allow organizations to create websites which can be shared with users external to their organization either anonymously or through the login provider of their choice like LinkedIn, Microsoft Account, other commercial login providers.)

24.You received a new urgent task to create several Azure virtual machines in your Azure environment. Unfortunately, you are on holiday and you only have a tablet with you, that runs Android operating system.

Solution: You use the Azure portal.

>YES (The Azure portal is a web-based, unified console that provides an alternative to command-line tools. With the Azure portal, you can manage your Azure subscription using a graphical user interface. You can build, manage, and monitor everything from simple web apps to complex cloud deployments.

Being web-based, the Azure portal can be run on a browser from a tablet or phone that runs the Android operating system.)

25.You need to correlate events from multiple resources into a centralized repository.Which of the following Azure services should you use?

>AZURE MONITOR (Azure Monitor maximizes the availability and performance of your applications and services by delivering a comprehensive solution for collecting, analyzing, and acting on telemetry from your cloud and on-premises environments. All data collected by Azure Monitor fits into one of two fundamental types, metrics and logs.

Log data collected by Azure Monitor can be analyzed with queries to quickly retrieve, consolidate, and analyze collected data. You can create and test queries using Log Analytics in the Azure portal and then either directly analyze the data using different tools or save queries for use with visualisation or alert rules.)

26.You received a new task to deploy a critical application in Azure cloud, using Azure virtual machines. The proposed solution must provide a guaranteed availability of 99.99 percent.

Which of the following options meets the requirement?

>Deploy minimum 2 VMs into 2 minimum availblity zones. (You need a minimum of two virtual machines with each one located in a different availability zone.

Availability Zones is a high-availability offering that protects your applications and data from datacenter failures. Availability Zones are unique physical locations within an Azure region. Each zone is made up of one or more data centres equipped with independent power, cooling, and networking.

Zone-redundant services replicate your applications and data across Availability Zones to protect from single-points-of-failure. With Availability Zones, Azure offers industry best 99.99% VM uptime SLA.

27.Your company is analyzing the possibility to migrate its services to Microsoft Azure. Before any final decision is taken, you need to find out what data Microsoft processes, how Microsoft processes the data, and the purpose of processing the data.

Which of the following options can help in this case?

>Microsoft online servives privacy statement (The Microsoft Privacy Statement explains what personal data Microsoft processes, how Microsoft processes the data, and the purpose of processing the data.)

28.Azure Active Directory Domain Services (Azure AD DS) allows you to create Group Policies.

>NO (Settings for user and computer objects in Azure Active Directory Domain Services (Azure AD DS) are often managed using Group Policy Objects (GPOs). There are some predefined built-in GPOs and you can customize these to configure Group Policy as needed for your environment.)

29.Azure Active Directory (Azure AD) allows you to join Windows 10 devices.

>TRUE - Indeed, Windows 10 devices can be joined in an Azure Active Directory (Azure AD) environment.

30.Azure Active Directory (Azure AD) allows you to join Android devices.

> NO - Azure AD join only applies to Windows 10 devices.

31.Your company is preparing to audit the Azure cloud infrastructure. The CTO is very much interested to track company's regulatory standards and regulations, such as ISO 27001.

Which of the following resources can help?

> COMPLIANCE MANAGER - Microsoft Compliance Manager (Preview) is a free workflow-based risk assessment tool that lets you track, assign, and verify regulatory compliance activities related to Microsoft cloud services. By default, Compliance Manager creates the following Assessments for your organization: Office 365 ISO 27001, Office 365 NIST 800-53 and Office 365 GDPR.

32.You are working for a multinational company that has local presence with offices in 40+ countries. As per company policy, you need to make sure that Azure resources are created in an Azure region where each office is located.

What Azure service would you use in order to meet the policy requirement ?

> AZURE POLICY - Azure policies can be used to define requirements for resource properties during deployment and for already existing resources. Azure Policy controls properties such as the types or locations of resources.

Azure Policy is a service in Azure that you use to create, assign, and manage policies. These policies enforce different rules and effects over your resources, so those resources stay compliant with your corporate standards and service level agreements. Azure Policy meets this need by evaluating your resources for noncompliance with assigned policies. All data stored by Azure Policy is encrypted at rest.

Azure Policy offers several built-in policies that are available by default. In this question, we would use the 'Allowed Locations' policy to define the locations where resources can be deployed.

33.The company CFO is concerned about the costs the new Azure ExpressRoute connection will bring. You explain the CFO that inbound data traffic from the company's on-premises data centre to Azure cloud is always free, while using Azure ExpressRoute.

>TRUE - With Azure ExpressRoute, all inbound data transfer is free of charge.

34.You explain the CFO that data traffic between Azure services within the same Azure region is always free.

>TRUE - Data transfer between Azure services located within the same region is not charged.

35. Outbound data traffic from Azure to external destinations is always free.

>FALSE - Inbound data traffic is free, but outbound data traffic is not.

36.In Azure Portal, you are able to distinguish between services that are generally available (GA) or in public preview.

>TRUE - During Private Preview phase, Microsoft invites a few customers to take part in early access to new concepts and features. After the public preview is completed, the feature is open for any licensed customer to use and is supported via all Microsoft support channels.

Any new service that is in the Public Preview state is marked in Azure portal with a (Preview) label, which makes it easy to distinguish the service from a service that is in GA phase.

37. After a service transitions from public preview and becomes generally available, the service will not be updated anymore.

> NO - After a service is tested, improved and transitioned to GA phase, it can be purchased and used by any Azure customer. The service will continue to be updated and receive updates until Azure decides to discontinue and retire the product.

38.You have previously used an Azure service that was in the public preview phase.

Please evaluate the following statement and select Yes if the statement is true, otherwise select No.

The Azure service is now generally available and you now need to recreate the service in Azure.

>NO - Once the service transitions to generally available (GA) phase, you can simply continue to use the service, as before. You don't need to recreate the service in Azure.

39. You are working on a new migration project for several weeks already. The project manager has asked you to configure Azure to send email alerts when the cost of the current billing period for the Azure subscription exceeds a specified limit.

What will you use in this case?

>BUDGET ALERTS - Budget alerts notify you when spending, based on usage or cost, reaches or exceeds the amount defined in the alert condition of the budget. Cost Management budgets are created using the Azure portal or the Azure Consumption API.

40. North America is represented by a single Azure region.

>FALSE - The statement is false, North America includes many Azure regions

41. Every Azure region has multiple data centers.

>TRUE - The statement is True. Here is how Azure official documentation defines an Azure Region:

A region is a set of datacenters deployed within a latency-defined perimeter and connected through a dedicated regional low-latency network.

42.Data transfers between Azure services located in different Azure regions are always free.

>FASLE - Data transfers between Azure services located in different Azure regions is charged,

43.You plan to deploy several Azure virtual machines. You need to ensure that the services running on the virtual machines remain available if a single Azure data center fails.

What are the two best possible solutions?

>DEPLOT VM TO 2 OR MORE REGIONS AND DEPLOY VM TO 2 OR MORE AVAILIBITY ZONES - Let's define what Azure regions and availability zones are.Azure availability zones are unique physical locations within a region. Each zone is made up of one or more datacenters equipped with independent power, cooling, and networking.

A region represents a set of data centers deployed within a latency-defined perimeter and connected through a dedicated regional low-latency network.

Azure virtual machines scale sets (VMSS) could also be used, but it depends how you configure them. Virtual machines in a VMSS can be deployed in same Azure availability zone or across multiple availability zones. For this reason, the best two answers are regions and availability zones.

44. Which Azure service provides a platform for serverless code?

>AZURE FUNCTIONS - Azure provides a range of serverless execution environments, fully managed services and a comprehensive set of developer tools and services to build your applications.

If we now refer to running code in Azure in a serverless manner, Azure Functions service can be used.

45.You can create a resource group inside another resource group.

>FALSE - Nested resource groups are not available in Azure, so deploying a resource group inside another resource group is not possible. When you create a resource in Azure, you can only define a name for it, select an Azure region and optionally attach tags.

46.A resource group can contain resources from multiple Azure regions.

>TRUE - A resource group is a container that holds related resources for an Azure solution. The resource group stores metadata about the resources. Therefore, when you specify a location for the resource group, you are specifying where that metadata is stored.

The location you choose for the resource group has nothing to do with the location you choose for your resources.

47.You have an on-premises application that sends email notifications automatically based on a rule. You plan to migrate the application to Azure.

You need to recommend a serverless computing solution for the application.

What should you include in the recommendation?

>LOGIC APP - Azure Logic Apps can be used and integrated with your applications to send email notifications based on conditions that you configure. You can use Logic Apps to send email notifications from your Office365 or even personal Gmail account.

48.Azure Germany can be used by ....

>any user or enterprise that requires its data to reside in germany - Azure Germany is a physically isolated instance of Microsoft Azure. You would deploy resources in Azure Germany if you need to make sure that data stays within Germany borders, so for data residency purposes.

49. Which of the following represents a platform-as-a-service (PaaS) Azure service?

>azure cosmosdb

50.You have recently signed up for an Azure account and you are now preparing for a large migration project to Azure cloud. You need to request that Microsoft increases a subscription quota limit for your company.

What Azure menu should you use from the Azure portal?

>HELP+SUPPORT - To request a quota increase, you should open a new support request by navigating first to Help + support, on the Azure portal menu.

TEST 2

1) Azure Platform as a Service (PaaS) service offering provides full control of the operating system that hosts your applications.

A- No (A PaaS solution does not provide access to the operating system. The Azure Web Apps service provides an environment for you to host your web applications. Behind the scenes, the web apps are hosted on virtual machines running IIS. However, you have no direct access to the virtual machine, the operating system or IIS.)

2) While using an Azure PaaS solution that hosts your web apps, you can change the pricing tier to add additional memory.

A- Yes (Multiple pricing plans are available for Azure App Service and it's really easy to choose an option that can accommodate your business and technical needs.)

3) While using a PaaS Azure service that hosts your web apps, you can configure your solution to automatically scale the number VM instances, based on demand.

A- Yes (A PaaS solution that hosts web apps in Azure does provide the ability to scale the platform automatically. This is known as autoscaling. Behind the scenes, the web apps are hosted on virtual machines running IIS. Autoscaling means adding more load balanced virtual machines to host the web apps.)

4) Your company has decided to migrate some of its services to Microsoft Azure. The company CTO wants to make sure that services deployed to Azure virtual machines are available if a single data center fails.

Solution: You deploy the virtual machines to a scale set.

Does this meet the goal?

A- No (This answer does not specify that the scale set will be configured across multiple data centers so this solution does not meet the goal. Azure virtual machine scale sets let you create and manage a group of load balanced VMs.

The number of VM instances can automatically increase or decrease in response to demand or a defined schedule. Scale sets provide high availability to your applications, and allow you to centrally manage, configure, and update many VMs.)

5) Your company has decided to migrate some of its services to Microsoft Azure. The company CTO wants to make sure that services deployed to Azure virtual machines are available if a single data center fails.

Solution: You deploy the virtual machines to two or more scale sets.

Does this meet the goal?

A- No (This answer does not specify that the scale set will be configured across multiple data centers so this solution does not meet the goal. Azure virtual machine scale sets let you create and manage a group of load balanced VMs.

The number of VM instances can automatically increase or decrease in response to demand or a defined schedule. Scale sets provide high availability to your applications, and allow you to centrally manage, configure, and update many VMs.)

6) Your company has decided to migrate some of its services to Microsoft Azure. The company CTO wants to make sure that services deployed to Azure virtual machines are available if a single data center fails.

Solution: You deploy the virtual machines to two or more availability zones.

Does this meet the goal?

A- Yes (Availability zones expand the level of control you have to maintain the availability of the applications and data on your VMs. An Availability Zone is a physically separate zone, within an Azure region. There are three Availability Zones per supported Azure region.

Each Availability Zone has a distinct power source, network, and cooling. By architecting your solutions to use replicated VMs in zones, you can protect your apps and data from the loss of a datacenter. If one zone is compromised, then replicated apps and data are instantly available in another zone.)

7) Your company has decided to migrate some of its services to Microsoft Azure. The company CTO wants to make sure that services deployed to Azure virtual machines are available if a single data center fails.

Solution: You deploy the virtual machines to two or more regions.

Does this meet the goal?

A- Yes (By deploying the virtual machines to two or more regions, you are deploying the virtual machines to multiple datacenters. This will ensure that the services running on the virtual machines are available if a single data center fails.

Azure operates in multiple datacenters around the world. These datacenters are grouped into geographic regions, giving you flexibility in choosing where to build your applications.

You can create Azure resources in defined geographic regions like 'West US', 'North Europe', or 'Southeast Asia'. You can review the list of regions and their locations. Within each region, multiple datacenters exist to provide for redundancy and availability.)

8) Your company has decided to migrate some of its services to Microsoft Azure. The company CTO wants to make sure that services deployed to Azure virtual machines are available if a single data center fails.

Solution: You deploy the virtual machines to two or more resource groups.

Does this meet the goal?

A- No (A resource group is a logical container for Azure resources. When you create a resource group, you specify which location to create the resource group in. However, when you create a virtual machine and place it in the resource group, the virtual machine can still be in a different location (different data center).

Therefore, creating multiple resource groups, even if they are in separate data centers does not ensure that the services running on the virtual machines are available if a single data center fails.)

9) Azure Functions represents a serverless computing Azure service offering.

A- Yes (Azure Functions provides the platform for serverless code. Azure Functions is a serverless compute service that lets you run event-triggered code without having to explicitly provision or manage infrastructure.)

10) Azure App Service hosts web applications.

A- Yes (Azure App Service hosts web apps.

Azure App Service is an HTTP-based service for hosting web applications, REST APIs, and mobile back ends. You can develop in your favorite language, be it .NET, .NET Core, Java, Ruby, Node.js, PHP, or Python. Applications run and scale with ease on both Windows and Linux-based environments.)

11) Azure Databricks is a big data analysis Azure service used for machine learning.

A- Yes (Azure Databricks is a data analytics platform optimized for the Microsoft Azure cloud services platform.

Azure Databricks offers two environments for developing data intensive applications: Azure Databricks SQL Analytics and Azure Databricks Workspace.

Azure Databricks Workspace is an analytics platform based on Apache Spark. Azure Databricks Workspace is integrated with Azure to provide one-click setup, streamlined workflows, and an interactive workspace that enables collaboration between data engineers, data scientists, and machine learning engineers.)

12) Azure Application Insights detects and diagnoses anomalies in web applications.

A- Yes (Application Insights, a feature of Azure Monitor, is an extensible Application Performance Management (APM) service for developers and DevOps professionals. Use it to monitor your live applications. It will automatically detect performance anomalies, and includes powerful analytics tools to help you diagnose issues and to understand what users actually do with your app.)

13) You are working on a project in Azure and multiple business units are involved. Each business unit uses the same 25 Azure resources. You have been tasked to implement a solution to automate the creation of the Azure resources.

What should you use?

A- Azure Resource Manager Template (You can use Azure Resource Manager templates to automate the creation of the Azure resources. Deploying resource through templates is known as "Infrastructure as code".

To implement infrastructure as code for your Azure solutions, use Azure Resource Manager templates. The template is a JavaScript Object Notation (JSON) file that defines the infrastructure and configuration for your project. The template uses declarative syntax, which lets you state what you intend to deploy without having to write the sequence of programming commands to create it. In the template, you specify the resources to deploy and the properties for those resources.)

14) You have an Azure subscription named AZ-900-Subscription. You sign in to the Azure portal and create a resource group named RG-AZ-900.

You intend to use the following command that creates a virtual machine named VirtualMachine01.

az vm create --resource-group RG-AZ-900 --name VirtualMachine01 --image UbuntuLTS --generate-ssh-keys

You need to create VirtualMachine01 in AZ-900-Subscription by using the command.

Solution: Launch Azure Cloud Shell from Azure Portal and select Bash. Run the command in Cloud Shell.

Does this meet the goal?

A- Yes (The command can be run in the Azure Cloud Shell. The Azure Cloud Shell is a free interactive shell. It has common Azure tools preinstalled and configured to use with your account.

To open the Cloud Shell, just select Try it from the upper right corner of a code block. You can also launch Cloud Shell in a separate browser tab by going to https://shell.azure.com/bash.)

15) You have an Azure subscription named AZ-900-Subscription. You sign in to the Azure portal and create a resource group named RG-AZ-900.

You intend to use the following command that creates a virtual machine named VirtualMachine01.

az vm create --resource-group RG-AZ-900 --name VirtualMachine01 --image UbuntuLTS --generate-ssh-keys

You need to create VirtualMachine01 in AZ-900-Subscription by using the command.

Solution: Launch Azure Cloud Shell from Azure Portal and select PowerShell. Run the command in Cloud Shell.

Does this meet the goal?

A- Yes (The command can be run in the Azure Cloud Shell. Although this question says you select PowerShell rather than Bash, the Az commands will work in PowerShell.

The Azure Cloud Shell is a free interactive shell. It has common Azure tools preinstalled and configured to use with your account.

To open the Cloud Shell, just select Try it from the upper right corner of a code block. You can also launch Cloud Shell in a separate browser tab by going to https://shell.azure.com/bash.)

16) You have an Azure subscription named AZ-900-Subscription. You sign in to the Azure portal and create a resource group named RG-AZ-900.

You intend to use the following command that creates a virtual machine named VirtualMachine01.

az vm create --resource-group RG-AZ-900 --name VirtualMachine01 --image UbuntuLTS --generate-ssh-keys

You need to create VirtualMachine01 in AZ-900-Subscription by using the command.

Solution: Install Azure CLI on your computer that runs Windows 10. From PowerShell, sign in to Azure and then run the command.

Does this meet the goal?

A- Yes (The command can be run from PowerShell or the command prompt if you have the Azure CLI installed.)

17) You have an Azure subscription named AZ-900-Subscription. You sign in to the Azure portal and create a resource group named RG-AZ-900.

You intend to use the following command that creates a virtual machine named VirtualMachine01.

az vm create --resource-group RG-AZ-900 --name VirtualMachine01 --image UbuntuLTS --generate-ssh-keys

You need to create VirtualMachine01 in AZ-900-Subscription by using the command.

Solution: Install Azure CLI on your computer that runs Windows 10. From Command Prompt, sign in to Azure and then run the command.

Does this meet the goal?

A- Yes (The command can be run from PowerShell or the command prompt if you have the Azure CLI installed.)

18) Which of the following Azure services provides serverless computing in Azure

A- Azure Functions (Azure Functions provides a platform for serverless code. Azure Functions is a serverless compute service that lets you run event-triggered code without having to explicitly provision or manage infrastructure.)

19) Azure virtual machines provide operating system virtualization.

A- No (Azure virtual machines provide hardware virtualization. Azure Virtual Machines (VM) is one of several types of on-demand, scalable computing resources that Azure offers. Typically, you choose a VM when you need more control over the computing environment than the other choices offered.)

20) Azure Container Instances provide a portable environment for virtualized applications.

A- Yes (Azure Container Instances provide portable environments for virtualized applications. Containers are becoming the preferred way to package, deploy, and manage cloud applications. Azure Container Instances offers the fastest and simplest way to run a container in Azure, without having to manage any virtual machines and without having to adopt a higher-level service.

Containers offer significant startup benefits over virtual machines (VMs). Azure Container Instances can start containers in Azure in seconds, without the need to provision and manage VMs.)

21) Azure App Service is an Azure service that you can use to build, deploy and scale web apps.

A- Yes (Azure App Service is used to build, deploy and scale web apps.

Azure App Service is a platform-as-a-service (PaaS) offering that lets you create web and mobile apps for any platform or device and connect to data anywhere, in the cloud or on-premises. App Service includes the web and mobile capabilities that were previously delivered separately as Azure Websites and Azure Mobile Services.)

22) Azure Firewall encrypts network traffic sent from Azure to outside destinations.

A- No (Azure firewall does not encrypt network traffic. It is used to block or allow traffic based on source/destination IP address, source/destination ports and protocol.)

23) Azure Network Security Groups (NSGs) encrypt traffic sent from Azure to outside destinations.

A- No (A network security group does not encrypt network traffic. It works in a similar way to a firewall and is used to block or allow traffic based on source/destination IP address, source/destination ports and protocol.)

24) Azure Windows server virtual machines encrypt by default the traffic sent to a host on the Internet.

A- No (The question is rather vague as it would depend on the configuration of the host on the Internet. Windows Server does come with a VPN client and it also supports other encryption methods such IPSec encryption or SSL/TLS, so it could encrypt the traffic if the Internet host was configured to require or accept the encryption.

However, the VM could not encrypt the traffic to an Internet host that is not configured to require the encryption. Anyway, some configuration needs to be done, outbound traffic encryption doesn't happen by default.)

25) You are currently working in an Azure virtual network named AZ-900-VNET in a resource group named AZ-900-RG.

You receive an email from your manager and you assign an Azure policy specifying that virtual networks are not an allowed resource type in AZ-900-RG.

What happens with your AZ-900-VNET ?

A- AZ900 VNET continues to function normally (The AZ-900-VNET will be marked as "Non-compliant" when the policy is assigned. However, it will not be deleted and will continue to function normally.

Azure Policy is a service in Azure that you use to create, assign, and manage policies. These policies enforce different rules and effects over your resources, so those resources stay compliant with your corporate standards and service level agreements.

If there are any existing resources that aren't compliant with a new policy assignment, they appear under Non-compliant resources.)

26) You need to investigate which user has turned off a specific virtual machine in the last 14 days.

What Azure service can help you during your investigation?

A- Azure Activity Log (You would use the Azure Activity Log to view which user turned off a specific virtual machine during the last 14 days. Activity logs are kept for 90 days. You can query for any range of dates, as long as the starting date isn't more than 90 days in the past.

As related to this question, you would need to create a filter to display shutdown operations on the virtual machine, in the last 14 days.)

27) Azure Advisor generates a list of Azure virtual machines that are protected by Azure Backup.

A- No (Azure Advisor does not generate a list of virtual machines that are protected by Azure Backup. You can view a list of virtual machines that are protected by Azure Backup by viewing the Protected Items in the Azure Recovery Services Vault.

Azure advisor is a personalized cloud consultant that helps you follow best practices to optimize your Azure deployments. The recommendations are divided into five categories:

· Reliability (formerly called High Availability)

· Security

· Performance

· Cost

· Operational Excellence

Under the High Availability category, along with other recommendations, you can find Virtual machines that are not protected by Azure Backup.)

28) After you finish implementing the security recommendations provided by Azure Advisor, your company's secure score has decreased.

A- No (If you implement the security recommendations, you company's security score will increase, not decrease.)

29) Security recommendations provided by Azure Advisor must be implemented in maximum 7 days.

A- No (There is no requirement to implement the security recommendations provided by Azure Advisor. The recommendations are just that, "recommendations", they are not "requirements".)

30) Which statement accurately describes the Modern Lifecycle Policy for Azure services?

A- Microsoft provides a minimum of 12 months notice before ending support for a service.

31) Azure SLAs guarantee a minimum uptime of 99.9% for vast majority of Azure paid services.

A- Yes (SLA's vary based on the resource type and the location distribution of the resource. However, the minimum uptime for the vast majority of Azure services is 99.9 percent.)

32) Azure Service Level Agreement (SLA) guaranteed uptime can be increased by adding Azure resources to multiple regions.

A- Yes (The SLA guaranteed uptime is increased (usually to 99.95 percent) when resources are deployed across multiple regions.)

33) You received a new task to increase the Service Level Agreement (SLA) guaranteed uptime, so you decided to purchase multiple subscriptions.

A- No (The number of subscriptions is unrelated to uptime SLA's.\

You can deploy resources to multiple regions under a single subscription or you can have multiple subscriptions with resources deployed to the same region.)

34) Using your Microsoft account, you can manage multiple Azure subscriptions.

A- Yes (You can use the same account to manage multiple subscriptions. You can create an additional subscription for your account in the Azure portal. You may want an additional subscription to avoid hitting subscription limits, to create separate environments for security, or to isolate data for compliance reasons.)

35) You are currently working on two Azure subscriptions. You decide to merge the two subscriptions intro a single subscription, so you open an Azure service request.

A- No (You can't merge two subscriptions into a single subscription. However, you can move some Azure resources from one subscription to another or you can also transfer ownership of a subscription and change the billing type for a subscription.)

36) An Azure customer can register and use multiple Azure subscriptions.

A- Yes (A company can have multiple subscriptions and store resources in the different subscriptions. However, a resource can exist in one subscription only.)

37) Azure services in private preview are release to all customers.

A- No (Most services go to private preview then public preview before being released to general availability (GA). The private preview is only available to certain Azure customers for evaluation purposes.)

38) Azure services in public preview are released to all Azure customers.

A- Yes (Public Preview means that the service is in public beta and can be tried out by anyone with an Azure subscription. Services in public preview are often offered at a discount price.

Public previews are excluded from SLAs and in some cases, no support is offered.)

39) From Azure Service Health, an administrator can view the health of all the services in an Azure environment.

A- True (Service Health provides a personalized view of the health of the Azure services and regions you're using. This is the best place to look for service impacting communications about outages, planned maintenance activities, and other health advisories because the authenticated Service Health experience knows which services and resources you currently use.)

40) From Azure Service Health, an administrator can create a rule to be alerted if an Azure service fails.

A- True (Azure Service Health is a combination of three separate smaller services and one of them is Resource Health.

Resource Health provides information about the health of your individual cloud resources such as a specific virtual machine instance. Using Azure Monitor, you can also configure alerts to notify you of availability changes to your cloud resources. Resource Health along with Azure Monitor notifications will help you stay better informed about the availability of your resources minute by minute and quickly assess whether an issue is due to a problem on your side or related to an Azure platform event.)

41) Azure Advisor provides recommendations on how to improve the security of an Azure Active Directory (Azure AD) environment.

A- False (Advisor is a personalized cloud consultant that helps you follow best practices to optimize your Azure deployments. It doesn't include recommendations targeting Azure Active Directory (Azure AD).

The Advisor dashboard displays personalized recommendations for all your subscriptions. You can apply filters to display recommendations for specific subscriptions and resource types.

The recommendations are divided into five categories:

Reliability (formerly called High Availability): To ensure and improve the continuity of your business-critical applications

Security: To detect threats and vulnerabilities that might lead to security breaches.

Performance: To improve the speed of your applications.

Cost: To optimize and reduce your overall Azure spending.

Operational Excellence: To help you achieve process and workflow efficiency, resource manageability and deployment best practices)

42) Azure Advisor provides recommendations on how to reduce the cost of running Azure virtual machines.

A- True (Advisor is a personalized cloud consultant that helps you follow best practices to optimize your Azure deployments. Once your VMs run for a bit in Azure, Advisor will start making recommendations on how to reduce your running VM costs.

The Advisor dashboard displays personalized recommendations for all your subscriptions. You can apply filters to display recommendations for specific subscriptions and resource types.

The recommendations are divided into five categories:

Reliability (formerly called High Availability): To ensure and improve the continuity of your business-critical applications

Security: To detect threats and vulnerabilities that might lead to security breaches.

Performance: To improve the speed of your applications.

Cost: To optimize and reduce your overall Azure spending.

Operational Excellence: To help you achieve process and workflow efficiency, resource manageability and deployment best practices)

43) Azure Advisor provides recommendations on how to configure the network settings on Azure virtual machines.

A- False (Advisor is a personalized cloud consultant that helps you follow best practices to optimize your Azure deployments. It doesn't include recommendations on how to configure the network settings on Azure virtual machines. Why? Because it really depends on how you want to use your VMs, so Azure Advisor wouldn't know what you want to implement.

The Advisor dashboard displays personalized recommendations for all your subscriptions. You can apply filters to display recommendations for specific subscriptions and resource types.

The recommendations are divided into five categories:

Reliability (formerly called High Availability): To ensure and improve the continuity of your business-critical applications

Security: To detect threats and vulnerabilities that might lead to security breaches.

Performance: To improve the speed of your applications.

Cost: To optimize and reduce your overall Azure spending.

Operational Excellence: To help you achieve process and workflow efficiency, resource manageability and deployment best practices)

44) Which of the following services provides a cloud-based Enterprise Data Warehouse (EDW) ?

A- Azure Synapse Analytics (Azure Synapse (formerly known as Data Warehouse) is an analytics service that brings together enterprise data warehousing and Big Data analytics. It gives you the freedom to query data on your terms, using either serverless on-demand or provisioned resources—at scale. Azure Synapse brings these two worlds together with a unified experience to ingest, prepare, manage, and serve data for immediate BI and machine learning needs.)

45) Which of the following services uses past trainings to provide predictions that have high probability?

A- Azure Machine Learning (Azure Machine Learning is a cloud-based environment that you can use to train, deploy, automate, manage, and track machine learning (ML) models.

Machine learning is a data science technique that allows computers to use existing data to forecast future behaviors, outcomes, and trends. By using machine learning, computers learn without being explicitly programmed.)

46) Which of the following services processes data from millions of sensors?

A- Azure IoT Hub (IoT Hub is a managed service, hosted in the cloud, that acts as a central message hub for bi-directional communication between your IoT application and the devices it manages. You can use Azure IoT Hub to build IoT solutions with reliable and secure communications between millions of IoT devices and a cloud-hosted solution backend. You can connect virtually any device to IoT Hub.)

47) Your company has decided to add a watermark to Microsoft Word documents that contain credit card information.

Which of the following Azure services would you use in order to accomplish this task?

A- Azure Information Protection (Azure Information Protection is used to automatically add a watermark to Microsoft Word documents that contain credit card information.

You use Azure Information Protection labels to apply classification to documents and emails. When you do this, the classification is identifiable regardless of where the data is stored or with whom it's shared. The labels can include visual markings such as a header, footer, or watermark.

Labels can be applied automatically by administrators who define rules and conditions, manually by users, or a combination where users are given recommendations. In this question, we would configure a label to be automatically applied to Microsoft Word documents that contain credit card information. The label would then add the watermark to the documents.

To open the Azure Information Protection admin portal, you must have Azure Information Protection Premium P1, or Azure Information Protection Premium P2, or an Office 365 subscription that includes Azure Rights Management.)

48) Azure Cognitive Services represents a simplified tool to build Artificial Intelligence (AI) applications.

A- True (Azure Cognitive Services are cloud-based services with REST APIs and client library SDKs available to help you build cognitive intelligence into your applications.

You can add cognitive features to your applications without having artificial intelligence (AI) or data science skills. Azure Cognitive Services comprise various AI services that enable you to build cognitive solutions that can see, hear, speak, understand, and even make decisions.)

49) .... explains what data Microsoft processes, how Microsoft processes the data, and the purpose of processing the data.

A- Microsoft Online Services Privacy Statement (The Microsoft Privacy Statement explains what personal data Microsoft processes, how Microsoft processes the data, and the purpose of processing the data.)

50) Azure services in general availability (GA) are released to only a group of customers.

A- No (An Azure service in general availability is available to all Azure customers, not just a subset of the customers.)

TEST 3

1) Your company can extend its private cloud by adding its own physical servers to Azure public cloud.

A- No

[You cannot add physical servers to the public cloud. You can only deploy virtual servers in the public cloud. You can extend a private cloud by deploying virtual servers in a public cloud and this would create a hybrid cloud.]

2) Your company decided to build a hybrid cloud; in order to work in a hybrid cloud model, you must deploy resources to Azure public cloud.

A- Yes

[A hybrid cloud is a combination of a private cloud and public cloud. Therefore, to create a hybrid cloud, you must deploy resources to a public cloud.]

3) On-premises private clouds must be disconnected from the Internet.

A- No

[It is not true that a private cloud must be disconnected from the Internet. Private clouds can be and most commonly are connected to the Internet. "Private cloud" means that the physical servers are managed by you. It does not mean that it is disconnected from the Internet.]

4) The DevOps department in your company is preparing for a project that is scheduled to start in a week. Each week, the DevOps team will deploy and then remove around 60-70 virtual machines. In order to improve efficiency and avoid errors, DevOps team will use Azure Resource Manager (ARM) templates to configure the virtual machines.

You need to recommend an Azure service that can help and minimize the administrative effort required to deploy and remove the virtual machines.

What Azure service would you recommend to the DevOps team ?

A- Azure DevTest Labs

5) Which of the following Azure resources is an example of Infrastructure as a Service (IaaS) ?

A- An Azure virtual Machine

[An Azure virtual machine is an example of Infrastructure as a Service (IaaS). Azure web app, Azure logic app and Azure SQL database are all examples of Platform as a Service (Paas).]

6) You work as an Azure Administrator at Udemy.com and you plan to run a PowerShell script to create Azure resources.

Which computer configuration should you use to run the script?

Solution: Run the script from a computer that runs Windows 10 and has the Azure PowerShell module installed.

Does this meet the goal?

A- Yes

[A PowerShell script is a file that contains PowerShell cmdlets and code. A PowerShell script needs to be run in PowerShell.

In this question, the computer has the Azure PowerShell module installed. Therefore, this solution does meet the goal.]

7) You work as an Azure Administrator at Udemy.com and you plan to run a PowerShell script to create Azure resources.

Which computer configuration should you use to run the script?

Solution: Run the script from a computer that runs Linux and has the Azure CLI tools installed.

Does this meet the goal?

A- No

[A PowerShell script is a file that contains PowerShell cmdlets and code. A PowerShell script needs to be run in PowerShell.

PowerShell can now be installed on Linux. However, the question states that the computer has Azure CLI tools, not PowerShell installed. Therefore, this solution does not meet the goal.]

8) You work as an Azure Administrator at Udemy.com and you plan to run a PowerShell script to create Azure resources.

Which computer configuration should you use to run the script?

Solution: Run the script from a computer that runs Mac OS and uses Azure Cloud Shell

Does this meet the goal?

A- Yes

[A PowerShell script is a file that contains PowerShell cmdlets and code. A PowerShell script needs to be run in PowerShell.

With the Azure Cloud Shell, you can run from your web browser both, az CLI scripts from bash terminal, and PowerShell cmdlets and scripts from PowerShell terminal. You log in to the Azure Portal and select the Azure Cloud Shell option. This will open the last terminal type used but you can switch between bash and PowerShell at any time. The Azure Cloud Shell has installed both, the necessary Azure PowerShell modules and also Azure CLI.]

9) You work as an Azure Administrator at Udemy.com and you plan to run a PowerShell script to create Azure resources.

Which computer configuration should you use to run the script?

Solution: Run the script from a computer that runs Mac OS and has PowerShell Core 7, and Azure PowerShell Module installed.

Does this meet the goal?

A- Yes

[A PowerShell script is a file that contains PowerShell cmdlets and code. A PowerShell script needs to be run in PowerShell.

Additionally in order to create Azure resources we need to have Azure PowerShell module also installed.

Until version 5, PowerShell was only available on Windows, bu starting on version 6, PowerShell is developed in .net CORE, and available for Windows, Linux and macOS. Therefore, this solution does meet the goal.]

10) Azure AI Bot provides a digital online assistant that offers speech support.

A- Yes

[Azure AI bot provides a digital online assistant that provides speech support. Bots provide an experience that feels less like using a computer and more like dealing with a person - or

at least an intelligent robot. They can be used to shift simple, repetitive tasks, such as taking a dinner reservation or gathering profile information, on to automated systems that may no longer require direct human intervention.

Users communicate with a bot using text, interactive cards, and speech. A bot interaction can be a quick question and answer, or it can be a sophisticated conversation that intelligently provides access to services.]

11) Azure Functions uses past trainings to provide predictions that have high probability.

A- No

[It is not Azure Functions, but Azure Machine Learning that uses past trainings to provide predictions that have high probability. Machine learning is a data science technique that allows computers to use existing data to forecast future behaviours, outcomes, and trends. By using machine learning, computers learn without being explicitly programmed.

Forecasts or predictions from machine learning can make apps and devices smarter. For example, when you shop online, machine learning helps recommend other products you might want based on what you've bought.]

12) Azure Functions provides serverless computing functionalities.

A- Yes

[Azure Functions provides serverless computing functionalities.

Azure Functions is a serverless compute service that lets you run event-triggered code without having to explicitly provision or manage infrastructure.]

13) Azure Machine Learning processes data from millions of sensors.

A- No

[IoT Hub (Internet of things Hub) provides data from millions of sensors. IoT Hub is a managed service, hosted in the cloud, that acts as a central message hub for bi-directional communication between your IoT application and the devices it manages.

You can use Azure IoT Hub to build IoT solutions with reliable and secure communications between millions of IoT devices and a cloud-hosted solution backend. You can connect virtually any device to IoT Hub.]

14) Which of the following Azure services would you recommend?

A- Azure Resouce Manager templates

[Azure Resource Manager templates provides a common platform for deploying objects to a cloud infrastructure and for implementing consistency across the Azure environment.

Azure policies are used to define rules for what can be deployed and how it should be deployed. Whilst this can help in ensuring consistency, Azure policies do not provide the common platform for deploying objects to a cloud infrastructure.

Management groups are used to group and easily manage more subscriptions at once. Resource groups are simply containers for Azure resources.]

15) You are using a Windows 10 computer to manage an Azure environment.

Which of the following options represent valid Azure management tools to manage Azure from your computer?

A- Azure CLI, Azure portal and Azure PowerShell

[Previously, the Azure CLI (or x-plat CLI) was the only option for managing Azure subscriptions and resources from the command-line on Linux and macOS. Now with the open source and cross-platform release of PowerShell, you'll be able to manage all your Azure resources from Windows, Linux and macOS using your tool of choice, either the Azure CLI or Azure PowerShell cmdlets.

The Azure portal runs in a web browser, so can be used in either operating system.]

16) You are using an Ubuntu linux computer to manage an Azure environment.

Which of the following options represent valid Azure management tools to manage Azure from your computer?

A- Azure CLI, Azure portal and Azure PowerShell

[Previously, the Azure CLI (or x-plat CLI) was the only option for managing Azure subscriptions and resources from the command-line on Linux and macOS. Now with the open source and cross-platform release of PowerShell, you'll be able to manage all your Azure resources from Windows, Linux and macOS using your tool of choice, either the Azure CLI or Azure PowerShell cmdlets.

The Azure portal runs in a web browser, so can be used in either operating system.]

17) You are using a Mac OS computer to manage an Azure environment.

Which of the following options represent valid Azure management tools to manage Azure from your computer?

A- Azure CLI, Azure portal and Azure PowerShell

[Previously, the Azure CLI (or x-plat CLI) was the only option for managing Azure subscriptions and resources from the command-line on Linux and macOS. Now with the open source and cross-platform release of PowerShell, you'll be able to manage all your Azure resources from Windows, Linux and macOS using your tool of choice, either the Azure CLI or Azure PowerShell cmdlets.

The Azure portal runs in a web browser, so can be used in either operating system.]

18) Azure Advisor can provide recommendations on how to improve the security of an Azure AD tenant.

A- No

[Azure Advisor provides you with a consistent, consolidated view of recommendations for all your Azure resources. It integrates with Azure Security Center to bring you security recommendations. You can get security recommendations from the Security tab on the Advisor dashboard.

Examples of recommendations include restricting access to virtual machines by configuring Network Security Groups, enabling storage encryption, installing vulnerability assessment solutions. However, Azure Advisor does not provide recommendations on how to improve the security of an Azure AD environment.]

19) You can use Azure Advisor to understand how to reduce the cost of running Azure virtual machines.

A- Yes

[Advisor helps you optimize and reduce your overall Azure spend by identifying idle and underutilized resources. You can get cost recommendations from the Cost tab on the Advisor dashboard.]

20) Azure Advisor can help with recommendations and tips on how to configure virtual machines' network settings.

A- No

[Azure Advisor does not provide recommendations on how to configure network settings on Azure virtual machines, the statement is false.]

21) You need to evaluate whether your company's Azure environment meets regulatory requirements.

What should you use in your investigation?

A- The Security Center Blade from the Azure portal

[The Security Center blade from the Azure portal includes the 'regulatory compliance dashboard'.

The regulatory compliance dashboard provides insight into your compliance posture for a set of supported standards and regulations, based on continuous assessments of your Azure environment.

In the Azure Security Center regulatory compliance blade, you can get an overview of key portions of your compliance posture with respect to a set of supported standards. Currently supported standards are Azure CIS, PCI DSS 3.2, ISO 27001, and SOC TSP.]

22) A company has setup an Azure subscription and an Azure tenant. You need to provide access to the development team to be able to start and stop Virtual Machines. The access needs to be granted on specific occasions only.

You need to ensure the permission gets assigned, the solution implements the principle of least privilege and costs must be kept at minimum.

Which of the following security feature would you use for the requirement?

A- Just in Time VM access

[First of all, "Just-in-time" is a feature available in Azure Security Center. You can enable just-in-time feature so that access to your VMs is enabled for a specific period of time.

By default, if the network security group allows the connection arriving at the VM, then the connection is allowed. So this is true at any given moment in time, every day. With "just-in-time", you can enable access to the VM only when it's needed, for example when a patching maintenance window needs to take place.

Just-in-time capability reduces exposure to cyber security attacks while providing easy access when you need to connect to a VM.]

23) You have a resource group named AZ900-RG. You want to create virtual networks and app services in AZ900-RG, but want to prevent the creation of virtual machines only in AZ900-RG resource group.

What should you use?

A- an Azure policy

[Azure policies can be used to define requirements for resource properties during deployment and for already existing resources. Azure Policy controls properties such as the types or locations of resources.

Azure Policy is a service in Azure that you use to create, assign, and manage policies. These policies enforce different rules and effects over your resources, so those resources stay compliant with your corporate standards and service level agreements.

In this question, we would create a Azure policy assigned to the resource group that denies the creation of virtual machines in the resource group.]

24) Which of the following Azure services can be used to store certificates?

A- Azure Key Vault

[Azure Key Vault is a secure store for storage various types of sensitive information including passwords and certificates.

Azure Key Vault can be used to Securely store and tightly control access to tokens, passwords, certificates, API keys, and other secrets.

Secrets and keys are safeguarded by Azure, using industry-standard algorithms, key lengths, and hardware security modules (HSMs).]

25) You create a virtual machine named VM-01 in Azure Resource Manager. You need to prevent the accidental deletion of VM-01 virtual machine.

What should you configure next?

A- Azure lock

[You can configure a lock on VM-01 to prevent the accidental deletion.

As an administrator, you may need to lock a subscription, resource group, or resource to prevent other users in your organization from accidentally deleting or modifying critical resources. You can set the lock level to CanNotDelete or ReadOnly. In the portal, the locks are called Delete and Read-only respectively.

CanNotDelete means authorized users can still read and modify a resource, but they can't delete the resource.

ReadOnly means authorized users can read a resource, but they can't delete or update the resource. Applying this lock is similar to restricting all authorized users to the permissions granted by the Reader role.]

26) You received a new task to configure network traffic filtering across multiple Azure subscriptions and virtual networks.

Which Azure service can help you accomplish the task ?

A- Azure Firewall

[You can restrict traffic to multiple virtual networks in multiple subscriptions with a single Azure firewall.

Azure Firewall is a managed, cloud-based network security service that protects your Azure Virtual Network resources. It's a fully stateful firewall as a service with built-in high availability and unrestricted cloud scalability.

You can centrally create, enforce, and log application and network connectivity policies across subscriptions and virtual networks. Azure Firewall uses a static public IP address for your virtual network resources allowing outside firewalls to identify traffic originating from your virtual network.]

27) Your company is evaluating the possibility to migrate all network resources to Azure and to decommission the on-premises data centre. Currently the network contains 10,000 user accounts, in an Active Directory forest. The company CTO is concerned about potential impact on company's users, after the planned migration.

What should you recommend to minimize any potential impact on users?

A- Sync all Active Directory user accounts to Azure Active Directory

[To migrate to Azure and decommission the on-premises data center, you would need to create the 10,000 user accounts in Azure Active Directory. The easy way to do this is to sync all the Active Directory user accounts to Azure Active Directory (Azure AD). You can even sync their passwords to further minimize the impact on users.

The tool you would use to sync the accounts is Azure AD Connect. The Azure Active Directory Connect synchronization services (Azure AD Connect sync) is a main component of Azure AD Connect. It takes care of all the operations that are related to synchronize identity data between your on-premises environment and Azure AD.]

28) You can configure the Azure Active Directory (Azure AD) activity logs to appear in Azure Monitor.

A- Yes

[You can send Azure AD activity logs to Azure Monitor logs to enable rich visualizations, monitoring and alerting on the connected data.

All data collected by Azure Monitor fits into one of two fundamental types, metrics and logs (including Azure AD activity logs). Activity logs record when resources are created or modified. Metrics tell you how the resource is performing and the resources that it's consuming.]

29) You can use Azure Monitor to monitor resources across multiple Azure subscriptions.

A- Yes

[Starting in May 2020, Azure Monitor supports the selection of multiple resources of the same type across scopes.

You can use this to select for instance a set of virtual machines (VMs) across multiple subscriptions and resource groups to get a common insight that crosses a specific scope.

The ability to select multiple resources of the same type will also allow the selection of multiple Azure Monitor Logs work spaces enabling you to get insights from the logs stored in them.]

30) You can create alerts from Azure Monitor.

A- Yes

[You can create alerts in Azure Monitor.

Alerts in Azure Monitor proactively notify you of critical conditions and potentially attempt to take corrective action. Alert rules based on metrics provide near real time alerting based on numeric values, while rules based on logs allow for complex logic across data from multiple sources.]

31) The Azure free account has no spending limit.

A- No

[The statement is false, an Azure free account has a spending limit of 200 USD, or the equivalent in your local currency. The initial credit is available for the first 30 days, after your sign up for a free Azure account.]

32) You are exploring your new Azure free account and you see that there is a limit of 5TB of data that you can upload to Azure.

A- No

[The statement is false, there is no upload limit attached to Azure free accounts. An Azure free account has a 5 GB blob storage limit and a 5 GB file storage limit for the first 12 months. Using blob and file storage up to these limits is free of charge.]

33) You can deploy up to 20 web apps in an Azure free account.

A- No

[Azure free account has a limit of 10 web, mobile or API apps.]

34) Your company is preparing to migrate all its services to Azure cloud. The company CFO has asked you to make sure that each department will have a separate payment option for Azure services that it will consume.

What should you create for each department?

A- a subscription

[There are different payment options in Azure including pay-as-you-go (PAYG), Enterprise Agreement (EA), and Microsoft Customer Agreement (MCA) accounts.

Your Azure costs are 'per subscription'. You are charged monthly for all resources in a subscription. Therefore, to use different payment options per department, you will need to create a separate subscription per department. You can create multiple subscriptions in a single Azure Active Directory tenant.]

xxxxxxxx

35) Which two types of customers are eligible to use Azure Government to develop a cloud solution? Each correct answer presents a complete solution.

A- a United states govt entity

   a United states govt contractor

[Only US entities are eligible to apply and work in Azure Government dedicated cloud.]

36) Your company is evaluating the possibility to migrate its infrastructure to Azure cloud. The company CTO wants to make sure that access to Azure support is available by phone. You need to recommend a support plan that meets this requirement.

Solution: Recommend a Basic support plan.

Does this meet the goal?

A- No

[Only Standard and Professional Direct support plans include technical support via phone.]

37) Your company is evaluating the possibility to migrate its infrastructure to Azure cloud. The company CTO wants to make sure that access to Azure support is available by phone. You need to recommend a support plan that meets this requirement.

Solution: Recommend a Standard support plan.

Does this meet the goal?

A- Yes

[Only Standard and Professional Direct support plans include technical support via phone.]

38) Your Azure free trial account has expired and your actions are now limited in Azure.

Which of the following actions will get rejected by Azure?

A- You try to start a VM

[A stopped (deallocated) VM is offline and not mounted on an Azure host server. Starting a VM mounts the VM on a host server before the VM starts. As soon as the VM is mounted, it becomes chargeable. For this reason, you are unable to start a VM after a trial has expired.]

39) Almost all Azure services are first introduced in private preview, then transitioned to public preview and last to general availability.

A- Yes

[Most services go to private preview then public preview before being released to general availability. The private preview is only available to certain Azure customers for evaluation purposes. The public preview is available to all Azure customers.]

40) You need to be notified when Microsoft plans to perform maintenance windows that can affect the resources deployed to an Azure subscription.

What should you use?

A- Azure Service Health

[Azure offers a suite of experiences to keep you informed about the health of your cloud resources. This information includes current and upcoming issues such as service impacting events, planned maintenance, and other changes that may affect your availability.]

41) Please fill in the blanks the correct option.

An Azure web app that queries an on-premises Microsoft SQL server is an example of a .... cloud.

A- hybrid

[A hybrid cloud is a computing environment that combines a public cloud and a private cloud by allowing data and applications to be shared between them.

When computing and processing demand fluctuates, hybrid cloud computing gives businesses the ability to seamlessly scale their on-premises infrastructure up to the public

cloud to handle any overflow – without giving third-party data centres access to the entirety of their data.

Organisations gain the flexibility and computing power of the public cloud for basic and non-sensitive computing tasks, while keeping business-critical applications and data on premises, safely behind a company firewall.]

42) A Microsoft SQL server database that is hosted in the cloud and has software updates managed by Azure, is an example of ....

A- Platform as a service (PaaS)

[Azure SQL Database is a fully managed platform as a service (PaaS) database engine that handles most of the database management functions such as upgrading, patching, backups, and monitoring without user involvement.]

43) When you are implementing a software-as-a-service (SaaS) solution, you are responsible for ....

A- Configuring the SaaS solution

[When you are implementing a Software as a Service (SaaS) solution, you are responsible for configuring the SaaS solution. Everything else is managed by the cloud provider.

SaaS requires the least amount of management. The cloud provider is responsible for managing everything, and the end user just uses the software.]

44) Azure Site Recovery (ASR) provides .... for virtual machines.

A- Disaster Recovercy

[When you enable replication for a VM to set up disaster recovery, the Site Recovery Mobility service extension installs on the VM, and registers it with Azure Site Recovery.

During replication, VM disk writes are sent to a cache storage account in the source region. Data is sent from there to the target region, and recovery points are generated from the data.

When you fail over a VM during disaster recovery, a recovery point is used to restore the VM in the target region.]

45) Microsoft SQL Server 2016 installed on an Azure virtual machine is an example of platform as a service (PaaS).

A- False

[Installing a software or application and running it on an Azure virtual machine is an example of infrastructure-as-a-service (IaaS).

A cloud computing service provider, such as Azure, manages the infrastructure, while you purchase, install, configure and manage your own software – operating systems, middleware and applications.]

46) Azure Cosmos database is an example of software as a service(SaaS).

A- False

[Azure Cosmos DB is a fully managed NoSQL PaaS database for modern app development.]

47) When planning to migrate a public website to Azure, you must plan to ....

A- pay monthly usage costs

[With Azure, you pay only for what you use and there is no upfront commitment. This is also known as pay-as-you-go pricing. With pay-as-you-go pricing, you pay on a monthly basis for usage consumption, just like you do for electricity, gas, internet connection, etc.]

48) If you run VMs in Azure that have no public IP addresses attached, you can use Azure Bastion to connect to Azure VMs on their private IP addresses.

A- True

[Azure Bastion is a service you deploy that lets you connect to a virtual machine using your browser and the Azure portal. When you connect via Azure Bastion, your virtual machines do not need a public IP address, agent, or special client software.

Bastion provides secure RDP and SSH connectivity to all of the VMs in the virtual network in which it is provisioned. Using Azure Bastion protects your virtual machines from exposing RDP/SSH ports to the outside world, while still providing secure access using RDP/SSH. So Azure Bastion service can be used to connect to both Windows and Linux VMs.]

49) What are two characteristics of the public cloud? Each correct answer presents a complete solution.

A- Metered Pricing

   Self service management

[MicrosoftAzure cloud platform offers pay as you go pricing, so this is metered pricing. You can also use Azure portal, CLI or PowerShell to manage Azure cloud platform, and this

represents self-service management. Azure doesn't manage your resources, deployed in your subscription.]

50) Azure services that are released in public preview can be managed only by using Azure CLI.

A- No

[All Azure services can be managed using one of the many available Azure management tools: Azure Portal, Azure CLI and Azure PowerShell.]

TEST 4

1) Working on a traditional on-premises data center means you have a lot of responsibilities, such as:

- Backing up application data

- Replacing failed server hardware

- Managing physical server security

- Updating server operating systems

- Managing permissions to shared documents

Which administrative responsibilities will be eliminated if you migrate your infrastructure to Azure? (SELECT TWO)

A- Replacing failed server hardware

   Managing physical server security

2) The pay-as-you-go pricing model used by Microsoft Azure is an example of OpEx.

A- Yes

[One of the major changes that you will face when you move from on-premises cloud to the public cloud is the switch from capital expenditure (buying hardware) to operating expenditure (paying for service as you use it).

With the pay-as-go model, you pay for services as you use them and this is OpEx (Operational Expenditure). CapEx is where you pay for something upfront, for example, buying a new physical server.]

3) Azure Reserved VM Instances is a good example of OpEx.

A- No

[A reserved instance is where you pay upfront for the use of a virtual machine for a period of time (1 or 3 years). This can save you money as you receive a discount on the cost of a VM if you pay upfront for a reserved instance. However, as this is an upfront payment, it will be classed as CapEx, not OpEx.]

4) Traditional on-premises data centers are a good example of CapEx spending.

A- Yes

[Deploying your own datacenter is an example of CapEx. This is because you need to purchase all the infrastructure upfront before you can use it.]

5) Azure resources contained by AZ-RG1 resources group can access only resources in AZ-RG1 resource group.

A- No

[An Azure resource can interact with resources in other resource groups.]

6) If you delete RG1 resource group, all resources in RG1 will be deleted as well.

A- Yes

[Deleting the resource group will remove the resource group, as well as all the resources in that resource group.

This can be useful for the management of resources. For example, a virtual machine has several components (the VM itself, virtual disks, network adapter etc.). By placing the VM in its own resource group, you can delete the VM along with all its associated components by deleting the resource group.

Another example is when creating a test environment. You could place the entire test environment (Network components, virtual machines etc.) in one resource group. You can then delete the entire test environment by deleting the resource group.

This is what I also recommend to do once you finish your preparation for AZ-900 exam. Delete all resource groups that you used during your preparation for the exam and avoid unnecessary costs.]

7) Azure resources from multiple Azure regions can be deployed in the same resource group.

A- Yes

[Resources from multiple different regions can be placed in a resource group. The resource group only contains metadata about the resources it contains. By the way, metadata means "data about data", in other words a resource groups contains data or information about where is the resource located.]

8) Please select all statements that are correct. (SELECT THREE)

A- A company can extend the computing resources of its internal network by using a hybrid cloud model.

   If a company works in a public cloud model, any users at that company can access the resources in the cloud.

   To implement a hybrid cloud model , a company must run some of its resources in a public cloud.

9) Which of the following options is true?

A- Data must be rehydrated before it can be accessed.

10) What Azure service can you use to build and deploy an Artificial Intelligence (AI) solution in Azure?

A- Azure Machine Learning Studio

[Microsoft Azure Machine Learning Studio (classic) is a collaborative, drag-and-drop tool you can use to build, test, and deploy predictive analytics solutions on your data. Azure Machine Learning Studio (classic) publishes models as web services that can easily be consumed by custom apps or BI tools such as Excel.

Machine Learning Studio (classic) is where data science, predictive analytics, cloud resources, and your data meet.]

11) All Azure resources that are part of a single resource group must be deployed in the same Azure region.

A- No

[Azure resources deployed to a single resource group can be located in different regions. The resource group only contains metadata about the resources it contains.

When creating a resource group, you need to provide a location for that resource group. You may be wondering, "Why does a resource group need a location? And, if the resources can have different locations than the resource group, why does the resource group location matter at all?"

The resource group stores metadata about the resources. When you specify a location for the resource group, you're specifying where that metadata is stored. For compliance reasons, you may need to ensure that your data is stored in a particular region.]

12) Azure Resources inherit the tag applied at the resource group level.

A- No

[Tags for Resources are not inherited by default from their Resource Group.]

13) Azure resources inherit the permissions configured at the resource group level.

A- Yes

[A resource group can be used to scope access control for administrative actions. By default, permissions set at the resource level are inherited by the resources in the resource group.]

14) You are running an application in Azure, that is comprised of an Azure web app that has a Service Level Agreement (SLA) of 99.95 % and an Azure SQL database that has an SLA of 99.99 %.

Which of the following is true regarding the composite SLA of the application?

A- Composite SLA is equal to 99.44%

15) You need to modify the configuration of a web app hosted in Azure, but you only have your mobile phone available.

Which of the following Azure management tools are valid options that you can use?

A- Azure Portal

   Azure Cloud Shell

[The Azure portal is the web-based portal for managing Azure. Being web-based, you can use the Azure portal on your mobile phone as well.

Azure Cloud Shell is a web-based command line for managing Azure. You access the Azure Cloud Shell from the Azure portal. Being web-based, you can use the Azure Cloud Shell from your mobile phone.]

16) Your company is very much interested in the Internet of Things (IoT) business. Your manager told you that the next project is going to be a huge one. The field teams will have to deploy millions of sensors that will eventually upload data to Azure.

Which two Azure resources would support this planned architecture? (SELECT TWO)

A- Azure Data Lake

  Azure IoT Hub

[IoT Hub (Internet of things Hub) provides data from millions of sensors. IoT Hub is a managed service, hosted in the cloud, that acts as a central message hub for bi-directional communication between your IoT application and the devices it manages. You can use Azure IoT Hub to build IoT solutions with reliable and secure communications between millions of IoT devices and a cloud-hosted solution backend. You can connect virtually any device to IoT Hub.

There are two storage services IoT Hub can route messages to -- Azure Blob Storage and Azure Data Lake Storage Gen2 (ADLS Gen2) accounts. Azure Data Lake Storage accounts are hierarchical namespace-enabled storage accounts built on top of blob storage. Both of these use blobs for their storage.]

17) You are planning to build an online school and host large video files, that will be accessed by users worldwide.

What Azure service would you use so that your website provides the best video playback experience?

A- a content delivery network (CDN)

[The question states that users are located worldwide and will be downloading large video files. The video playback experience would be improved if they can download the video from servers in the same region as the users. We can achieve this by using a content deliver network.

A content delivery network (CDN) is a distributed network of servers that can efficiently deliver web content to users. CDNs store cached content on edge servers in point-of-presence (POP) locations that are close to end users, to minimize latency.

Azure Content Delivery Network (CDN) offers developers a global solution for rapidly delivering high-bandwidth content to users by caching their content at strategically placed physical nodes across the world. Azure CDN can also accelerate dynamic content, which cannot be cached, by leveraging various network optimizations using CDN POPs.

The benefits of using Azure CDN to deliver web site assets include:

- Better performance and improved user experience for end users, especially when using applications in which multiple round-trips are required to load content.

- Large scaling to better handle instantaneous high loads, such as the start of a product launch event.

- Distribution of user requests and serving of content directly from edge servers so that less traffic is sent to the origin server.]

18) Your company has decided to migrate all its infrastructure and applications to Azure. One of the applications is built to sends email notifications automatically based on a rule.

What Azure serverless computing solution would be a good candidate in this case?

A- a Logic App

[Azure Logic Apps is a cloud service that helps you schedule, automate, and orchestrate tasks, business processes, and workflows when you need to integrate apps, data, systems, and services across enterprises or organizations.

Logic Apps simplifies how you design and build scalable solutions for app integration, data integration, system integration, enterprise application integration (EAI), and business-to-business (B2B) communication, whether in the cloud, on premises, or both.

For example, here are just a few workloads you can automate with logic apps:

- Process and route orders across on-premises systems and cloud services.

- Send email notifications with Office 365 when events happen in various systems, apps, and services.

- Move uploaded files from an SFTP or FTP server to Azure Storage.

- Monitor tweets for a specific subject, analyze the sentiment, and create alerts or tasks for items that need review.]

19) Your company plans to migrate all its network resources to Azure and you need to start the planning process by exploring Azure.

What should you create first?

A- a subscription

[The first thing you create in Azure is a subscription. You can think of an Azure subscription as an "Azure account". You get billed per subscription.

A subscription is an agreement with Microsoft to use one or more Microsoft cloud platforms or services, for which charges accrue based on either a per-user license fee or on cloud-based resource consumption.

Microsoft's Software as a Service (SaaS)-based cloud offerings (Office 365, Intune/EMS, and Dynamics 365) charge per-user license fees.

Microsoft's Platform as a Service (PaaS) and Infrastructure as a Service (IaaS) cloud offerings (Azure) charge based on cloud resource consumption.

You can also use a trial subscription, but the subscription expires after a specific amount of time or consumption charges. You can convert a trial subscription to a paid subscription. Organizations can have multiple subscriptions for Microsoft's cloud offerings.]

20) You need to deploy a database in Azure that can add data concurrently from multiple regions and can store JSON documents.

Which database service should you deploy?

A- Azure Cosmos DB

[Azure Cosmos DB is Microsoft's globally distributed, multi-model database service. With a click of a button, Cosmos DB enables you to elastically and independently scale throughput and storage across any number of Azure regions worldwide.

Azure Cosmos DB is a great way to store unstructured and JSON data. Combined with Azure Functions, Cosmos DB makes storing data quick and easy with much less code than required for storing data in a relational database.]

21) What Azure solution allows to map a network drive from Windows computers to Azure Storage?

A- a Files service in storage account

[Azure Files is Microsoft's easy-to-use cloud file system. Azure file shares can be seamlessly used in Windows and Windows Server.

To use an Azure file share with Windows, you must either mount it, which means assigning it a drive letter or mount point path, or access it via its UNC path.]

22) Which of the following Azure services provide organizations with the ability to manage the compliance of Azure resources across multiple subscriptions ?

A- Azure policies

[Azure policies can be used to define requirements for resource properties during deployment and for already existing resources. Azure Policy controls properties such as the types or locations of resources.

Azure Policy is a service in Azure that you use to create, assign, and manage policies. These policies enforce different rules and effects over your resources, so those resources stay

compliant with your corporate standards and service level agreements. Azure Policy meets this need by evaluating your resources for noncompliance with assigned policies. All data stored by Azure Policy is encrypted at rest.

For example, you can have a policy to allow only a certain SKU size of virtual machines in your environment. Once this policy is implemented, new and existing resources are evaluated for compliance. With the right type of policy, existing resources can be brought into compliance.]

23) What should an application connect to in order to retrieve security tokens?

A- Azure Active Directory (Azure AD)

[Azure AD authenticates users and provides access tokens. An access token is a security token that is issued by an authorization server. It contains information about the user and the app for which the token is intended, which can be used to access Web APIs and other protected resources.

Instead of creating apps that each maintain their own username and password information, which incurs a high administrative burden when you need to add or remove users across multiple apps, apps can delegate that responsibility to a centralized identity provider.

Azure Active Directory (Azure AD) is a centralized identity provider in the cloud. Delegating authentication and authorization to it enables scenarios such as Conditional Access policies that require a user to be in a specific location, the use of multi-factor authentication, as well as enabling a user to sign in once and then be automatically signed in to all of the web apps that share the same centralized directory. This capability is referred to as Single Sign On (SSO).]

24) Your company plans to migrate several web servers and several database servers to Azure. You need to recommend an Azure solution to limit the types of connections from the web servers to the database servers.

What should you include in the recommendation?

A- network security groups (NSGs)

[A network security group works like a firewall. You can attach a network security group to a virtual network and/or individual subnets within the virtual network. You can also attach a network security group to a network interface assigned to a virtual machine. You can use multiple network security groups within a virtual network to restrict traffic between resources such as virtual machines and subnets.

You can filter network traffic to and from Azure resources in an Azure virtual network with a network security group. A network security group contains security rules that allow or deny

inbound network traffic to, or outbound network traffic from, several types of Azure resources.]

25) Please select all statements that are true (SELECT FOUR).

A- Azure govt is a dedicated public cloud for federal and state agencies in the US.

NIST is an organisation that defines standards used by the US govt.

ISO is an organisation that defines international standards across all industries.

GDPR is an European policy that regulates data privacy and data protection.

26) You need to ensure that when Azure Active Directory (Azure AD) users connect to Azure AD from the Internet by using an anonymous IP address, the users are prompted automatically to change their password. Which Azure service should you use?

A- Azure AD Identity Protection

[Azure AD Identity Protection includes two risk policies: sign-in risk policy and user risk policy. A sign-in risk represents the probability that a given authentication request isn't authorized by the identity owner.

There are several types of risk detection. One of them is Anonymous IP Address. This risk detection type indicates sign-ins from an anonymous IP address (for example, Tor browser or anonymous VPN). These IP addresses are typically used by actors who want to hide their login telemetry (IP address, location, device, etc.) for potentially malicious intent.

You can configure the sign-in risk policy to require that users change their password.]

27) To implement an Azure multi-factor authentication (MFA) solution, you must deploy a Federation solution or sync on-premises identities to the cloud.

A- No

[It is not true that you must deploy a federation solution or sync on-premises identities to the cloud. You can have a cloud-only environment and use MFA.]

28) Two valid methods for Azure Multi-Factor Authentication (MFA) are picture and passport number.

A- No

[Picture identification and passport numbers are not valid MFA authentication methods. Valid methods include: Password, Microsoft Authenticator App, SMS and Voice call.]

29) Azure Multi-Factor Authentication (MFA) can be required for administrative or non-administrative user accounts.

A- Yes

[You can configure MFA to be required for administrator accounts only or you can configure MFA for any user account.]

30) Which of the following customer types are eligible to use Azure Government to develop a cloud solution? (SELECT TWO)

A- a US govt entity

   a US govt contractor

[Azure Government is a cloud environment specifically built to meet compliance and security requirements for US government. This mission-critical cloud delivers breakthrough innovation to U.S. government customers and their partners. Azure Government applies to government at any level — from state and local governments to federal agencies including Department of Defense agencies.

The key difference between Microsoft Azure and Microsoft Azure Government is that Azure Government is a sovereign cloud. It's a physically separated instance of Azure, dedicated to U.S. government workloads only. It's built exclusively for government agencies and their solution providers.]

31) You need to ensure that a virtual machine named VM-01 is accessible from the Internet over HTTP.

Solution: You modify an Azure Traffic Manager profile.

Does this meet the goal?

A- No

[Azure Traffic Manager is a DNS-based load balancing solution. It is not used to ensure that a virtual machine named VM-01 is accessible from the Internet over HTTP. To ensure that a virtual machine named VM1 is accessible from the Internet over HTTP, you need to modify a network security group or Azure Firewall.

In this question, we need to add a rule to a network security group or Azure Firewall to allow the connection to the virtual machine on port 80 (HTTP).]

32) You need to ensure that a virtual machine named VM-01 is accessible from the Internet over HTTP.

Solution: You modify a network security group (NSG).

Does this meet the goal?

A- Yes

[A network security group works like a firewall. You can attach a network security group to a virtual network and/or individual subnets within the virtual network. You can also attach a network security group to a network interface assigned to a virtual machine. You can use multiple network security groups within a virtual network to restrict traffic between resources such as virtual machines and subnets.

You can filter network traffic to and from Azure resources in an Azure virtual network with a network security group. A network security group contains security rules that allow or deny inbound network traffic to, or outbound network traffic from, several types of Azure resources.

In this question, we need to add a rule to the network security group to allow the connection to the virtual machine on port 80 (HTTP).]

33) You need to ensure that a virtual machine named VM-01 is accessible from the Internet over HTTP.

Solution: You modify a DDoS protection plan.

Does this meet the goal?

A- No

[DDoS is a form of attack on a network resource. A DDoS protection plan is used to protect against DDoS attacks; it does not provide connectivity to a virtual machine.

To ensure that a virtual machine named VM-01 is accessible from the Internet over HTTP, you need to modify a network security group or Azure Firewall.]

34) You need to ensure that a virtual machine named VM-01 is accessible from the Internet over HTTP.

Solution: You modify an Azure firewall.

Does this meet the goal?

A- Yes

[Azure Firewall is a managed, cloud-based network security service that protects your Azure Virtual Network resources. It's a fully stateful firewall as a service with built-in high availability and unrestricted cloud scalability.

In this question, we need to add a rule to Azure Firewall to allow the connection to the virtual machine on port 80 (HTTP).]

35) All Azure customers can use an Azure service if the Azure service is in _____.

A- public preview

[Public Preview means that the service is in public beta and can be tried out by anyone with an Azure subscription. Services in public preview are often offered at a discount price.

Public previews are excluded from SLAs and in some cases, no support is offered.]

36) Which of the following is guaranteed for virtual machines in an Azure Service Level Agreement (SLA) ?

A- Uptime

[The SLA for virtual machines guarantees 'uptime'. The amount of uptime guaranteed depends on factors such as whether the VMs are in an availability set or availability zone if there is more than one VM, the distribution of the VMs if there is more than one or the disk type if it is a single VM.

The SLA for Virtual Machines states:

- For all Virtual Machines that have two or more instances deployed across two or more Availability Zones in the same Azure region, we guarantee you will have Virtual Machine Connectivity to at least one instance at least 99.99% of the time.

- For all Virtual Machines that have two or more instances deployed in the same Availability Set or in the same Dedicated Host Group, we guarantee you will have Virtual Machine Connectivity to at least one instance at least 99.95% of the time.

- For any Single Instance Virtual Machine using Premium SSD or Ultra Disk for all Operating System Disks and Data Disks, we guarantee you will have Virtual Machine Connectivity of at least 99.9%.]

37) You want to test a new Azure service that is currently in public preview phase. Which of the following is true about this public preview Azure service ?

A- It is excluded from the Service Level Agreements (SLAs)

[Preview features are made available to you on the condition that you accept additional terms which supplement the regular Azure terms. The supplemental terms state:

"PREVIEWS ARE PROVIDED "AS-IS," "WITH ALL FAULTS," AND "AS AVAILABLE," AND ARE EXCLUDED FROM THE SERVICE LEVEL AGREEMENTS AND LIMITED WARRANTY."]

38) If you create additional resource groups in an Azure subscription, your Azure bill will increase.

A- No

[Resource groups are logical containers for Azure resources. You do not pay for resource groups.]

39) If you copy data to Azure from your on-premises network over a VPN, you need to pay additional data transfer costs.

A- No

[Data coming into Azure is free, you pay only for data leaving Azure cloud.]

40) A company can extend an internal network by adding its own physical servers to the public cloud.

A- False

[A hybrid cloud is a computing environment that combines a public cloud and a private cloud by allowing data and applications to be shared between them. However, you can't add your servers to the public cloud. Instead, you can deploy and run applications on both public cloud infrastructure and your own on-premises servers.

When computing and processing demand fluctuates, hybrid cloud computing gives businesses the ability to seamlessly scale their on-premises infrastructure up to the public cloud to handle any overflow – without giving third-party data centres access to the entirety of their data.

Organisations gain the flexibility and computing power of the public cloud for basic and non-sensitive computing tasks, while keeping business-critical applications and data on premises, safely behind a company firewall.]

41) A private cloud must be disconnected from the internet.

A- False

[A private cloud consists of cloud computing resources used exclusively by one business or organisation.

The private cloud can be physically located at your organisation's on-site data centre, or it can be hosted by a third-party service provider. But in a private cloud, the services and infrastructure are always maintained on a private network and the hardware and software are dedicated solely to your organisation.

The private cloud can be completely isolated from the Internet, or it can be connected to the Internet. It really depends on the technical and business needs that need to be met by the organization.]

42) An organisation that hosts its infrastructure .... no longer requires a data center.

A- in the public cloud.

[Public clouds are the most common type of cloud computing deployment. The cloud resources (like servers and storage) are owned and operated by a third-party cloud service provider and delivered over the Internet.

With a public cloud, all hardware, software and other supporting infrastructure are owned and managed by the cloud service provider. Microsoft Azure is an example of a public cloud.]

43) Azure Cosmos DB is an example of a .... offering.

A- Platform as a Service (PaaS)

[Azure Cosmos DB is a fully managed NoSQL database for modern app development. Single-digit millisecond response times, and automatic and instant scalability, guarantee speed at any scale.]

44) Please fill in the blanks the correct option for the following statement:

An Azure service is available to all Azure customers when it is in ....

A- public preview

[An Azure service is available to all Azure customers when it is available in public preview.]

45) All Azure services that are in private preview are available to use by any new or existing Azure customer.

A- False

[During the private preview phase, Microsoft invites a few customers to take part in early access to new concepts and features. Azure services that are available in private preview, are not available to all customers.]

46) When using an ExpressRoute connection, inbound data traffic from an on-premises network to Azure is always free.

A- True

[It really doesn't matter that the traffic is arriving in Azure through an ExpressRoute circuit. Any inbound traffic to Azure, so traffic arriving in Azure is FREE. You pay some fees for traffic that exits Azure or for traffic between Azure regions.]

47) Outbound traffic from Azure to an on-premises network is always free.

A- False

[Outbound data transfer, so this is traffic leaving Azure data centers, is charged after the first free 5GB.]

48) When planning to migrate a public website to Azure, you must ....

A- plan to pay monthly usage costs

[Azure pricing model is pay-as-you-go, so this means that once you start running services in Azure, you start to pay. How much will you pay ? Depends on how much resources you allocate and consume through your running services in Azure.]

49) You have 1,000 virtual machines hosted on the Hyper-V hosts in a data center. You plan to migrate all the virtual machines to an Azure pay-as-you-go subscription. You need to identify which expenditure model to use for the planned Azure solution. Which expenditure model should you identify?

A- Operational

[Operating expenditures are ongoing costs of doing business. Consuming cloud services in a pay-as-you-go model could qualify as an operating expenditure.]

50) If you copy data from Azure to an on-premises network over a VPN, you need to pay additional data transfer costs.

A- Yes

[Ingress data transfer into Azure is free, however you pay for egress data transfer, so data that leaves Azure data centers.]

TEST 5

1) An Azure service is fault tolerant if it remains available after a failure occurs.

A- Yes (Fault tolerance is the ability of a service to remain available after a failure of one of the components of the service. For example, a service running on multiple servers can withstand the failure of one of the servers.)

2) An Azure service has disaster recovery capabilities if it can recover after a failure occurs.

A- Yes (Disaster recovery is the recovery of a service after a failure. For example, restoring a virtual machine from backup after a virtual machine failure.)

3) An Azure service is scalable if it can't adapt to traffic demand changes, up or down.

A- No (Dynamic scalability is the ability for compute resources to be added to a service when the service is under heavy load. For example, in a virtual machine scale set, additional instances of the virtual machine are added when the existing virtual machines are under heavy load.)

4) Azure provides low latency access to its services, which means services can be accessed quickly from the Internet.

A- Yes (Latency is the time a service responds to requests. For example, the time it takes for a web page to be returned from a web server. Low latency means low response time, which means a quicker response.)

5) You are preparing to migrate all your company's virtual machines to a pay-as-you-go subscription in Azure cloud. The company CFO asks you what expenditure model Azure uses.

What will you answer?

A- operational expenditure (One of the major changes that you will face when you move from on-premises cloud to the public cloud is the switch from capital expenditure (buying hardware) to operating expenditure (paying for service as you use it). This switch also requires more careful management of your costs. The benefit of the cloud is that you can fundamentally and positively affect the cost of a service you use by merely shutting down or resizing it when it's not needed.)

6) Your company is running the business on an on-premises network that contains around 80 servers. You need to identify a solution to provide more resources to your users, but also to minimize capital and operational expenditure costs.

What should you recommend?

A- a hybrid cloud (A hybrid cloud is a combination of a private cloud and a public cloud. Capital expenditure is the spending of money up-front for infrastructure such as new servers.

With a hybrid cloud, you can continue to use the on-premises servers while adding new servers in the public cloud (Azure for example). Adding new servers in Azure minimizes the capital expenditure costs as you are not paying for new servers as you would if you deployed new server on-premises.)

7) Which cloud deployment solution is used for Azure virtual machines and Azure SQL databases? (SELECT TWO)

A- Azure virtual machines are infrastructure as a Service (IaaS)

   Azure SQL Databases are Platform as Service (PaaS)

8) You plan to migrate a web application to Azure. The web application is accessed by external users.

You need to recommend a cloud deployment solution to minimize the amount of administrative effort used to manage the web application.

What should you include in the recommendation?

A- Platform as a Service (PaaS)

(Azure App Service is a platform-as-a-service (PaaS) offering that lets you create web and mobile apps for any platform or device and connect to data anywhere, in the cloud or on-premises. App Service includes the web and mobile capabilities that were previously delivered separately as Azure Websites and Azure Mobile Services.)

9) The company's compliance policy states that a server named Azure_on_Udemy_Server must be on a separate network segment.

Which Azure solution should you recommend?

A- a virtual network for Azure on Udemy Server and another virtual network for all the servers.

(Networks in Azure are known as virtual networks. A virtual network can have multiple IP address spaces and multiple subnets. Azure automatically routes traffic between different subnets within a virtual network.

The question states that Azure_on_Udemy_Server must be on a separate network segment. The only way to separate Azure_on_Udemy_Server from the other servers in networking terms is to place the server in a different virtual network to the other servers.)

10) Which of the following Azure storage services must be used to store the unmanaged data disks of a virtual machine?

A- Azure Blobs (Azure page blobs are the backbone of the virtual disks platform for Azure IaaS. Both Azure OS and data disks are implemented as virtual disks where data is durably persisted in the Azure Storage platform and then delivered to the virtual machines for maximum performance. Azure Disks are persisted in Hyper-V VHD format and stored as a page blob in Azure Storage.)

11) You want to monitor the health of your Azure services.

Which of the following Azure blades (menus) would you navigate to for this task?

A- Monitor blade (Azure Monitor is used to monitor the health of Azure services. Azure Monitor maximizes the availability and performance of your applications and services by delivering a comprehensive solution for collecting, analyzing, and acting on telemetry from your cloud and on-premises environments. It helps you understand how your applications are performing and proactively identifies issues affecting them and the resources they depend on.)

12) You want to search and browse the available virtual machine images.

Which of the following Azure blades (menus) would you navigate to for this task?

A- Marketplace blade (You can browse available virtual machine images in the Azure Marketplace. Azure Marketplace provides access and information on solutions and services available from Microsoft and their partners. Customers can discover, try, or buy cloud software solutions built on or for Azure. The catalog of 8,000+ listings provides Azure building blocks, such as Virtual Machines (VMs), APIs, Azure apps, Solution Templates and managed applications, SaaS apps, containers, and consulting services.)

13) You want to view the available Azure security recommendations.

Which of the following Azure blades (menus) would you navigate to for this task?

A- Advisor blade (Azure Advisor displays security recommendations.

Azure Advisor provides you with a consistent, consolidated view of recommendations for all your Azure resources. It integrates with Azure Security Center to bring you security recommendations. You can get security recommendations from the Security tab on the Advisor dashboard.

Security Center helps you prevent, detect, and respond to threats with increased visibility into and control over the security of your Azure resources. It periodically analyzes the

security state of your Azure resources. When Security Center identifies potential security vulnerabilities, it creates recommendations. The recommendations guide you through the process of configuring the controls you need.)

14) Azure SQL Database is a managed relational cloud database service.

A- Yes (Azure SQL Database is a managed SQL Server Database in Azure. The SQL Server is managed by Microsoft, you just have access to the database.)

15) Azure SQL Data Warehouse is a cloud based service that leverages massively parallel processing (MPP) to quickly run complex queries across petabytes of data in a relational database.

A- Yes (Azure SQL Data Warehouse (SQL DW) is a cloud-based Platform-as-a-Service (PaaS) offering from Microsoft. It is a large-scale, distributed, MPP (massively parallel processing) relational database technology in the same class of competitors as Amazon Redshift or Snowflake.

Azure SQL DW is an important component of the Modern Data Warehouse multi-platform architecture. Because Azure SQL DW is an MPP system with a shared-nothing architecture across distributions, it is meant for large-scale analytical workloads which can take advantage of parallelism.)

16) Azure Data Lake Analytics can run massively parallel data transformation and processing programs across petabytes of data.

A- Yes (You can process big data jobs in seconds with Azure Data Lake Analytics. You can process petabytes of data for diverse workload categories such as querying, ETL, analytics, machine learning, machine translation, image processing and sentiment analysis by leveraging existing libraries written in .NET languages, R or Python.)

17) Azure HD Insight is an open source framework for the distributed processing and analysis of big data sets in clusters.

A- Yes (Apache Hadoop was the original open-source framework for distributed processing and analysis of big data sets on clusters. The Hadoop ecosystem includes related software and utilities, including Apache Hive, Apache HBase, Spark, Kafka, and many others.

Azure HDInsight is a fully managed, full-spectrum, open-source analytics service in the cloud for enterprises. The Apache Hadoop cluster type in Azure HDInsight allows you to use HDFS, YARN resource management, and a simple MapReduce programming model to process and analyze batch data in parallel.)

18) You plan to implement a solution that allows users in your on-premises network to communicate to virtual machines in Azure cloud.

Which two Azure resources should you include in your architecture?

A- a virtual network

  a gateway subnet

(To implement a solution that enables the client computers on your on-premises network to communicate to the Azure virtual machines, you need to configure a VPN (Virtual Private Network) to connect the on-premises network to the Azure virtual network.

The Azure VPN device is known as a Virtual Network Gateway. The virtual network gateway needs to be located in a dedicated subnet in the Azure virtual network. This dedicated subnet is known as a gateway subnet and must be named "GatewaySubnet".)

19) Azure DevOps represents an integrated solution for the deployment of code.

A- Yes (Azure DevOps is Microsoft's primary software development and deployment platform. DevOps influences the application lifecycle throughout its plan, develop, deliver and operate phases.)

20) Azure Advisor represents an Azure tool that provides guidance and recommendations to improve an Azure environment.

A- Yes (Advisor is a personalized cloud consultant that helps you follow best practices to optimize your Azure deployments. It analyzes your resource configuration and usage telemetry and then recommends solutions that can help you improve the cost effectiveness, performance, high availability, and security of your Azure resources.)

21) Azure Cognitive Services is a simplified tool that you can use in Azure to build intelligent Artificial Intelligence (AI) applications.

A- Yes (Azure Cognitive Services are APIs, SDKs, and services available to help developers build intelligent applications without having direct AI or data science skills or knowledge. Azure Cognitive Services enable developers to easily add cognitive features into their applications.

The goal of Azure Cognitive Services is to help developers create applications that can see, hear, speak, understand, and even begin to reason. The catalog of services within Azure Cognitive Services can be categorized into five main pillars - Vision, Speech, Language, Web Search, and Decision.)

22) You can use Azure Application Insights to monitor web applications.

A- Yes (Azure Application Insights detects and diagnoses anomalies in web apps. Application Insights, a feature of Azure Monitor, is an extensible Application Performance Management (APM) service for developers and DevOps professionals. Use it to monitor your live applications. It will automatically detect performance anomalies, and includes powerful analytics tools to help you diagnose issues and to understand what users actually do with your app.)

23) You want to connect through HTTPS to a brand new web server VM that you deployed to Azure. You open a browser, try to connect to web server's Public IP, but your connection gets denied.

What configuration should you modify so that you can connect to the web server?

A- network security group (When you create a virtual machine, the default setting is to create a Network Security Group attached to the network interface assigned to a virtual machine.

A network security group works like a firewall. You can attach a network security group to a virtual network and/or individual subnets within the virtual network. You can also attach a network security group to a network interface assigned to a virtual machine. You can use multiple network security groups within a virtual network to restrict traffic between resources such as virtual machines and subnets.

You can filter network traffic to and from Azure resources in an Azure virtual network with a network security group. A network security group contains security rules that allow or deny inbound network traffic to, or outbound network traffic from, several types of Azure resources.

In this question, we need to add a rule to the network security group to allow the connection to the virtual machine on TCP port 443.)

24) Which of the following statements is true regarding Azure Germany ?

A- Azure Germany can be used by any user or enterprise that requires its data to stay in Germany. (Azure Germany is available to eligible customers and partners globally who intend to do business in the EU/EFTA, including the United Kingdom.

Azure Germany offers a separate instance of Microsoft Azure services from within German datacenters. The data centers are in two locations, Frankfurt/Main and Magdeburg. This placement ensures that customer data remains in Germany and that the data centers connect to each other through a private network. All customer data is exclusively stored in

those datacenters. A designated German company -the German data trustee- controls access to customer data and the systems and infrastructure that hold customer data.)

25) You have finished the project and you now want to delete the AZ900 resource group. It seems that you can't delete it, because a delete lock is applied to AZ900 resource group.

What should you do next in order to delete the AZ900 resource group?

A- first remove the lock, then delete the resource group.

26) You plan to deploy several Azure virtual machines. You need to control the ports that devices on the Internet can use to access the virtual machines.

What should you use?

A- a network group (NSG)

(A network security group works like a firewall. You can attach a network security group to a virtual network and/or individual subnets within the virtual network. You can also attach a network security group to a network interface assigned to a virtual machine. You can use multiple network security groups within a virtual network to restrict traffic between resources such as virtual machines and subnets.

You can filter network traffic to and from Azure resources in an Azure virtual network with a network security group. A network security group contains security rules that allow or deny inbound network traffic to, or outbound network traffic from, several types of Azure resources.)

27) You need to recommend an Azure solution that encrypts the administrative credentials during services' deployment.

What should you include in the recommendation?

A- Azure Key Vault

(Azure Key Vault is a secure store for storage various types of sensitive information. In this question, we would store the administrative credentials in the Key Vault. With this solution, there is no need to store the administrative credentials as plain text in the deployment scripts.

All information stored in the Key Vault is encrypted.)

28) Only users that are authorized by Azure AD can access Azure resources.

A- No (Authorization to access Azure resources can be provided by other identity providers by using federation. A commonly used example of this is to federate your on-premises Active Directory environment with Azure AD and use this federation for authentication and authorization.)

29) Identities stored in Azure Active Directory (Azure AD), third-party cloud services and on-premises Active Directory can be used to access Azure resources.

A- Yes (Third-party cloud services and on-premises Active Directory can be used to access Azure resources, this is known as "federation".

Federation is a collection of domains that have established trust. The level of trust may vary, but typically includes authentication and almost always includes authorization. A typical federation might include a number of organizations that have established trust for shared access to a set of resources.)

30) Microsoft Azure has built-in authentication and authorization services that provide secure access to Azure resources.

A- Yes (Azure Active Directory (Azure AD) is a centralized identity provider in the cloud. This is the primary built-in authentication and authorization service to provide secure access to Azure resources.)

31) You can create an Azure support request from _____ .

A- Azure Portal (You can create an Azure support request from the Help and Support blade in the Azure portal or from the context menu of an Azure resource in the Support + Troubleshooting section.)

32) Azure Reservations allow you to pay less as compared to pay-as-you-go pricing.

A- Yes (A reservation is where you commit to pay for a resource (for example a virtual machine) for one or three years. This gives you a discounted price on the resource for the reservation period.)

33) Two virtual machines B2S size will always generate the same monthly costs.

A- No (There are other factors that influence the cost of a virtual machine such as the virtual hard disks attached to the virtual machine. You could have multiple virtual machines with the same size, B2S in this case, but with different virtual hard disk configurations.)

34) If you stop an Azure virtual machine, you continue to pay storage costs associated to the virtual machine.

A- Yes (When a virtual machine is stopped (deallocated), the virtual machine is unloaded/dismounted from the physical server in Azure. In this state, you are not charged for the virtual machine itself. However, you are still charged for the storage costs of the virtual hard disks attached to the virtual machine.

If the virtual machine is stopped but not deallocated (this happens if you shut down the virtual machine from the operating system of the virtual machine), the virtual machine is still mounted on the physical server in Azure and you are charged for the virtual machine itself as well as the storage costs. To ensure that a virtual machine is 'stopped (deallocated)', you need to stop the virtual machine in the Azure portal.)

35) Because you have been assigned the Owner role, you can now transfer the ownership of your Azure subscription.

A- No (You need to be the Administrator of the billing account that has the subscription to be able to transfer the subscription. This could be a Billing Administrator or Global Administrator. A subscription Owner can manage all resources and permissions within the subscription, but cannot transfer ownership of the subscription.)

36) An Azure subscription can be converted from Free trial to Pay-as-you-Go pricing model.

A- Yes (You can convert a free trial subscription to Pay-As-You-Go. This is common practice for people who wish to continue using the Azure services when the free trial period expires.)

37) The Azure spending limit of an Azure Free Trial account is fixed and can't be increased or decreased.

A- Yes (The spending limit in Azure prevents spending over your credit amount. All new customers who sign up for an Azure free account or subscription types that include credits over multiple months have the spending limit turned on by default. The spending limit is equal to the amount of credit and it can't be changed.

For example, if you signed up for Azure free account, your spending limit is $200 and you can't change it to $500. However, you can remove the spending limit. So, you either have no limit, or you have a limit equal to the amount of credit.)

38) Your company has decided to migrate all its infrastructure to Azure. All the Azure resources used by each department will be managed by a distinct department administrator.

Which of the following options can solve this requirement? (SELECT TWO)

A- create multiple subscription

  create multiple resource groups

39) All Azure services in private preview must be accessed by using a separate Azure portal.

A- No (Services in private preview can be viewed in the regular Azure portal. However, you need to be signed up for the feature in private preview before you can view it. Access to private preview features is usually by invitation only.)

40) Which Azure service can you use as a security information and event management (SIEM) solution?

A- Azure Sentinel (Microsoft Azure Sentinel is a scalable, cloud-native, security information event management (SIEM) and security orchestration automated response (SOAR) solution. Azure Sentinel delivers intelligent security analytics and threat intelligence across the enterprise, providing a single solution for alert detection, threat visibility, proactive hunting, and threat response.)

41) After you create a virtual machine, you need to modify the .... to allow connections to TCP port 8080 on the virtual machine.

A- network security group (NSG)

(You can use an Azure network security group to filter network traffic to and from Azure resources in an Azure virtual network.

A network security group contains security rules that allow or deny inbound network traffic to, or outbound network traffic from, several types of Azure resources. For each rule, you can specify source and destination, port, and protocol.

By default, a virtual machine deployed in Azure doesn't allow inbound traffic to TCP port 8080, so a new inbound rule should be added to allow this traffic.)

42) You plan to deploy several Azure virtual machines. You need to control the ports that devices on the internet can use to access the virtual machines.

What should you choose?

A- a network security group (You can use an Azure network security group to filter network traffic to and from Azure resources in an Azure virtual network. In order to filter traffic, you need to define rules, both for inbound and outbound traffic. A network security group contains zero, or as many rules as desired, within Azure subscription limits.

When create a port rule, inbound or outbound, you can specify an individual or range of ports.)

43) General Data Protection Regulation (GDPR) defines data protection and privacy rules.

A- True (The GDPR gives rights to people to manage personal data collected by an organization.

Several points should be considered when implementing or assessing GDPR requirements:

- Developing or evaluating your GDPR-compliance data privacy policy.

- Assessing the data security of your organisation.

-Who is your data controller?

- What data security processes may you have to perform?)

44) General Data Protection Regulation (GDPR) applies to companies that offer goods or services to individuals in the European Union (EU).

A- Ture (The General Data Protection Regulation (GDPR) introduces new rules for organizations that offer goods and services to people in the European Union (EU), or that collect and analyze data for EU residents no matter where you or your enterprise are located.)

45) An Azure policy initiative definition is a ....

A- collection of policy definitions (An initiative definition is a collection of policy definitions that are tailored towards achieving a singular overarching goal. Initiative definitions simplify managing and assigning policy definitions. They simplify by grouping a set of policies as one single item.)

46) An Azure resource can have multiple delete locks.

A- True (As an administrator, you may need to lock a subscription, resource group, or resource to prevent other users in your organization from accidentally deleting or modifying critical resources.

You can set the lock level to CanNotDelete or ReadOnly. In the portal, the locks are called Delete and Read-only respectively.

A resource can have multiple locks applied, either at the resource level itself, or for example, one lock applied at the resource level, a second one at the resource group, another at the subscription level.

I am not saying that it makes sense to do so, but it is indeed possible. One single lock applied at the resource or inherited by the resource is enough to prevent changes or accidental delete.)

47) Using Azure Service Health, an administrator can prevent a service failure.

A- False (Azure Service Health notifies you about Azure service incidents and planned maintenance so you can take action to mitigate downtime.

Configure customisable cloud alerts and use your personalised dashboard to analyse health issues, monitor the impact to your cloud resources, get guidance and support, and share details and updates.)

48) Your company plans to deploy an Arti+cial Intelligence (AI) solution in Azure.

What should the company use to build, test, and deploy predictive analytics solutions?

49) Match the Azure service to the correct description.

Services:

1 - Azure Machine Learning

2 - Azure IoT Hub

3 - Azure AI bot

4 - Azure Functions

Description:

A - Provides a digital online assistant that provides speech support

B - Uses past trainings to provide predictions that have a high probability

C - Provides serverless computing functionalities

D - Processes data from millions of sensors

Ans- 1-B, 2-D, 3-A, 4-C

(Azure AI Bot - Provides a digital online assistant that provides speech support

Azure Machine Learning - Uses past trainings to provide predictions that have a high probability

Azure Functions - Provides serverless computing functionalities

Azure IoT Hub - Processes data from millions of sensor)

50) Please evaluate the following statement and select Yes if the statement is true, otherwise select No.

Azure services in public preview phase can be used in production environments.

A- Yes (You can use services in public preview in production environments. However, you should be aware that the service may have faults, it is not subject to an SLA and may be withdrawn without notice.)

TEST 6

1) A platform as a service (PaaS) solution that hosts web apps in Azure provides the ability to scale the platform automatically.

A- Yes (A PaaS solution that hosts web apps in Azure does provide the ability to scale the platform automatically. This is known as autoscaling. Behind the scenes, the web apps are hosted on virtual machines running IIS. Autoscaling means adding more load balanced virtual machines to host the web apps.)

2) A platform as a service (PaaS) solution that hosts web apps in Azure provides full control over the operating system that hosts applications.

A- No (PaaS provides a framework that developers can build upon to develop or customize cloud-based applications. PaaS development tools can cut the time it takes to code new apps with pre-coded application components built into the platform, such as workflow, directory services, security features, search and so on.)

3) You are running Windows Server VM-01 in Azure, locates in West Europe region.

Which Azure service should you use from the Azure portal to view service failure notifications that can affect the availability of VM-01?

A- Azure virtual Machine (In the Azure virtual machines page in the Azure portal, there is a named Maintenance Status. This column will display service issues that could affect your virtual machine. A service failure is rare but host server maintenance that could affect your virtual machines is more common.)

4) You plan to extend your company's network to Azure. The network contains a VPN appliance that uses an IP address of 128.8.8.8.

You need to create an Azure resource that identifies the VPN appliance in Azure. Which Azure resource should you create?

A- Local network gateway

5) An Azure availability zone can be used to protect the availability of your services running in Azure.

Which of the following types of failures can you avoid by using availability zones?

A- an Azure data center failure

6) Which URL should you use to connect to Azure cloud and manage your Azure resources?

A- hhtps://portal.azure.com

7) You plan to store 20 TB of data in Azure. The data will be accessed infrequently and visualized by using Microsoft Power BI. You need to recommend a storage solution for the data.

Which two solutions should you recommend? (SELECT TWO)

A- Azure Data Lake

   Azure SQL Data Warehouse

8) This question requires that you evaluate the italic text to determine if it is correct.

One of the benefits of Azure Synapse Analytics is that high availability is built into the platform.

Please review the italic text. If it makes the statement correct, select "No change is needed". If the statement is incorrect, select the answer choice that makes the statement correct.

A- No change is needed (One of the key benefits of a modern cloud-based infrastructure such as Microsoft Azure is that features for high availability (HA) and disaster recovery (DR) are built in and simple to implement and customize.

Azure Synapse Analytics uses database snapshots to provide high availability of the warehouse. A data warehouse snapshot creates a restore point that can be used to recover or copy a data warehouse to a previous state. Because Azure Synapse Analytics is a distributed system, a data warehouse snapshot consists of many files that are located in Azure Storage.

Since Azure Storage replicates data automatically and creates at least three copies of your data inside Azure Storage (depending on what replication strategy you choose: LRS, ZRS, GRS, GZRS), then high availability is well assured within Azure Synapse Analytics.)

9) A team of developers at your company plans to deploy, and then remove, 50 customized virtual machines each week. Thirty of the virtual machines run Windows Server 2016 and 20 of the virtual machines run Ubuntu Linux.

You need to recommend which Azure service will minimize the administrative effort required to deploy and remove the virtual machines.

What should you recommend?

A- Azure DevTest Labs

(DevTest Labs creates labs consisting of pre-configured bases or Azure Resource Manager templates. By using DevTest Labs, you can test the latest versions of your applications by doing the following tasks:

- Quickly provision Windows and Linux environments by using reusable templates and artifacts.

- Easily integrate your deployment pipeline with DevTest Labs to provision on-demand environments.

- Scale up your load testing by provisioning multiple test agents and create pre-provisioned environments for training and demos.)

10) You received a new task to delegate permissions to several Azure virtual machines simultaneously.

What should you do ?

A- Deploy the Azure virtual machines to the same resource group

(A resource group is a logical container for Azure resources. Resource groups make the management of Azure resources easier.

With a resource group, you can allow a user to manage all resources in the resource group, such as virtual machines, websites, and subnets. The permissions you apply to the resource group apply to all resources contained in the resource group.)

11) You plan to deploy 35 virtual machines to an Azure environment. You need to ensure that a virtual machine named VM-01 can't connect to the other virtual machines.

What should you do in this case?

A- VM-01 must be deployed to a separate virtual network

(Azure automatically routes traffic between subnets in a virtual network. Therefore, all virtual machines in a virtual network can connect to the other virtual machines in the same virtual network. Even if the virtual machines are on separate subnets within the virtual network, they can still communicate with each other.

To ensure that a virtual machine cannot connect to the other virtual machines, the virtual machine must be deployed to a separate virtual network.)

12) Which of the following statements is true regarding Azure regions?

A- An Azure region contains one or more data centers that are connected by using a low-latency network.

(A region is a set of data centres deployed within a latency-defined perimeter and connected through a dedicated regional low-latency network.

Microsoft Azure currently has 60+ regions worldwide. Regions are divided into Availability Zones. Availability Zones are physically separate locations within an Azure region. Each Availability Zone is made up of one or more datacenters equipped with independent power, cooling, and networking.)

13) Azure availability zones are available to be configured in each and every Azure region.

A- No (Not all Azure regions support availability zones.)

14) Only virtual machines that run Ubuntu Linux operating system can be created in availability zones.

A- No (Regions that support availability zones support Windows virtual machines as well.)

15) Availability zones are used to replicate data and applications to multiple regions.

A- No (As availability zones are part of the same Azure region, they are used to replicate data and applications in the same region, to multiple data centers, and not to multiple different regions.

Availability Zones is a high-availability offering that protects your applications and data from datacenter failures. Availability Zones are unique physical locations within an Azure region. Each zone is made up of one or more datacenters equipped with independent power, cooling, and networking. To ensure resiliency, there's a minimum of three separate zones in all enabled regions.

The physical separation of Availability Zones within a region protects applications and data from datacenter failures. Zone-redundant services replicate your applications and data across Availability Zones to protect from single-points-of-failure. With Availability Zones, Azure offers industry best 99.99% VM uptime SLA.)

16) Data that is copied to an Azure Storage account is maintained automatically in at least three copies.

A- Yes (here are different replication options available with a storage account. The minimum replication option is Locally Redundant Storage (LRS). With LRS, data is replicated synchronously three times within the primary region.)

17) All data copied to an Azure Storage account is backed up automatically to another Azure data center.

A- No (Data is backed up automatically to another location and the total number of copies of your file that you store in Azure depends on the replication option configured for the account. Locally Redundant Storage (LRS) is the default which maintains three copies of the data, in the same data center. Data could be copied to another data center (or availability zone), in the same region, if ZRS replication is chosen. In this case, you would have a total of six copies of your file.)

18) Your company plans to automate the deployment of servers to Azure. The company Chief Technology Officer(CTO) is concerned that administrative credentials may get exposed during the deployment.

You need to recommend an Azure solution that encrypts the administrative credentials during the deployment.

What should you include in the recommendation?

A- Azure Key Vault (Azure Key Vault is a secure store for storage various types of sensitive information. In this question, we would store the administrative credentials in the Key Vault. With this solution, there is no need to store the administrative credentials as plain text in the deployment scripts.

All information stored in the Key Vault is encrypted. Azure Key Vault can be used to Securely store and tightly control access to tokens, passwords, certificates, API keys, and other secrets.

Access to a key vault requires proper authentication and authorization before a caller (user or application) can get access. Authentication establishes the identity of the caller, while authorization determines the operations or permissions that they are allowed to perform.)

19) Azure Key Vault is used to store secrets for _____ .

Which of the following options completes the statement correctly?

A- server applications (Centralizing storage of application secrets in Azure Key Vault allows you to control their distribution. Key Vault greatly reduces the chances that secrets may be accidentally leaked. When using Key Vault, application developers no longer need to store security information in their application.

Not having to store security information in applications eliminates the need to make this information part of the code. For example, an application may need to connect to a database. Instead of storing the connection string in the app's code, you can store it securely in Key Vault.)

20) Your manager has asked you to identify whether Azure complies with the company's regional requirements.

What should you use to fulfil this request?

A- the truth center (Azure has more than 90 compliance certifications, including over 50 specific to global regions and countries, such as the US, the European Union, Germany, Japan, the United Kingdom, India and China.

You can view a list of compliance certifications in the Trust Center to determine whether Azure meets your regional requirements.)

21) From Azure Service Health, you can view the health of all the services deployed in your Azure environment and all the other services available in Azure.

A- Yes (Azure Service Health consists of three components: Azure Status, Azure Service Heath and Azure Resource Health.

Azure service health provides a personalized view of the health of the Azure services and regions you're using. This is the best place to look for service impacting communications about outages, planned maintenance activities, and other health advisories because the authenticated Azure Service Health experience knows which services and resources you currently use. To view the health of all other services available in Azure, you would use the Azure Status component of Azure Service Health. Azure status informs you of service outages in Azure on the Azure Status page. The page is a global view of the health of all Azure services across all Azure regions.)

22) From Azure Service Health, an administrator can create a rule to be alerted if an Azure service fails.

A- Yes (The best way to use Service Health is to set up Service Health alerts to notify you via your preferred communication channels when service issues, planned maintenance, or other changes may affect the Azure services and regions you use.)

23) Which Azure service would you use to monitor threats in your Azure environment by using sensors?

A- Azure Advanced Threat Protection (ATP)

(To monitor threats by using sensors, you would use Azure Advanced Threat Protection (ATP).

Azure Advanced Threat Protection (ATP) is a cloud-based security solution that leverages your on-premises Active Directory signals to identify, detect, and investigate advanced threats, compromised identities, and malicious insider actions directed at your organization.)

24) Which Azure service would you use to enforce Azure MFA based on a condition?

A- Azure AD Identity Protection (To enforce MFA based on a condition, you would use Azure Active Directory Identity Protection. Azure AD Identity Protection helps you manage the roll-out of Azure Multi-Factor Authentication (MFA) registration by configuring a Conditional Access policy to require MFA registration no matter what modern authentication app you are signing in to.)

25) You need to configure an Azure solution that is able to secure your websites from attacks and generate reports that contain details of attempted attacks.

What should you include in your architecture?

A- DDoS Protection (DDoS is a type of attack that tries to exhaust application resources. The goal is to affect the application's availability and its ability to handle legitimate requests. DDoS attacks can be targeted at any endpoint that is publicly reachable through the internet.

Azure has two DDoS service offerings that provide protection from network attacks: DDoS Protection Basic and DDoS Protection Standard. DDoS Basic protection is integrated into the Azure platform by default and at no extra cost.)

26) The process of verifying a user's credentials is known as _____ .

A- Authemtication (Authentication is the process of verifying a user's credentials. The difference between authentication and authorization is:

- Authentication is proving your identity, proving that you are who you say you are. The most common example of this is logging in to a system by providing credentials such as a username and password.

- Authorization is what you're allowed to do, once you've been authenticated. For example, what resources you're allowed to access and what you can do with those resources.)

27) What happens if your Azure resource becomes unavailable for an extended period due to a service outage in Azure cloud?

A- Microsoft will automatically credit your account (If the Service Level Agreement for an Azure service is not met, you receive credits for that service and that service only. The credits are deducted from your monthly bill for that service. If you stopped using the service where the SLA was not met, your account would remain in credit for that service. The credits would not be applied to any other services that you may be using.)

28) Azure Active Directory Premium guarantees minimum 99.9% availability.

A- Yes (Microsoft guarantee at least 99.9% availability of the Azure Active Directory Basic and Premium services. The services are considered available in the following scenarios:

- Users are able to login to the service, login to the Access Panel, access applications on the Access Panel and reset passwords.

- IT administrators are able to create, read, write and delete entries in the directory or provision or unprovision users to applications in the directory.)

29) Azure Active Directory Basic and Azure Active Directory Free provide the same Service Level Agreement (SLA).

A- No (No SLA is provided for the Free tier of Azure Active Directory.)

30) Please evaluate the following statement and select Yes if the statement is true, otherwise select No.

If your monthly uptime percentage is below the guaranteed amount in the SLA, you can claim a credit.

A- Yes (You can claim credit if the availability falls below the SLA. The amount of credit depends on the availability. For example: You can claim 25% credit if the availability is less than 99.9%, 50% credit for less than 99% and 100% for less than 95% availability.)

31) Your company has 20 offices spread worldwide. You plan to generate several billing reports from the Azure portal. Each report will contain the Azure resource utilization of each office.

Which Azure Resource Manager feature should you use before you generate the reports?

A- Tags (You can use resource tags to "label" Azure resources. Tags are metadata elements attached to resources. Tags consist of pairs of key/value strings. In this question, we would tag each resource with a tag to identify each office. For example: Location = New York. When all Azure resources are tagged, you can generate reports to list all resources based on the value of the tag. For example: All resources used by New York office.)

32) Please select all the statements that are True (SELECT THREE).

A- All azure free account expire after a specific period.

  All Azure services are available even if you are using an Azure free account.

  you can create a single Azure free account by using your Microsoft account.

33) When an Azure subscription expires, the associated Azure Active Directory tenant is deleted automatically.

A- False (Statement is False. When a subscription expires, the trusted instance of the Azure AD service remains, but the security principals lose access to Azure resources.)

34) If an Azure resource has a Read-only lock, you can add a Delete lock to the resource.

A- True (The statement is indeed true and it may be useful in some cases to apply both a Delete and Read-Only lock.

After you apply a Delete lock to a resource, users will not be able to delete the resource, but will be allowed to read and modify the resource.

After you apply the Read-Only lock, you also take out the "modify" permission and the only permission left is "read-only.")

35) When you try to create multiple Azure virtual machines, you receive a message that you must increase your Azure subscription limits. What should you do to increase the limits?

A- Create a new support request (Many Azure resource have quote limits. The purpose of the quota limits is to help you control your Azure costs. However, it is common to require an increase to the default quota.

You can request a quota limit increase by opening a support request. In the support request, select 'Service and subscription limits (quotas)' for the Issue type, select your subscription and the service you want to increase the quota for - see below.)

36) Your manager has asked you to move the company's virtual machines to a new Azure subscription.

What would you tell to your manager?

A- The virtual machines can be moved to the new subsciption.

(You can move a VM and its associated resources to a different subscription by using the Azure portal. Moving between subscriptions can be handy if you originally created a VM in a personal subscription and now want to move it to your company's subscription to continue your work. You do not need to start the VM in order to move it and it should continue to run during the migration.)

37) Your company's website has pretty much the same traffic pattern during the year. During Black Friday campaign, customer traffic is a couple of times more than usual.

Which benefit of Azure Cloud Services supports cost management for this type of usage pattern?

A- elasticity (Elasticity in this case is the ability to provide additional compute resource when needed and reduce the compute resource when not needed to reduce costs. Autoscaling is an example of elasticity.

Elastic computing is the ability to quickly expand or decrease computer processing, memory and storage resources to meet changing demands without worrying about capacity planning and engineering for peak usage. Typically controlled by system monitoring tools, elastic computing matches the amount of resources allocated to the amount of resources actually needed without disrupting operations. With cloud elasticity, a company avoids paying for unused capacity or idle resources and doesn't have to worry about investing in the purchase or maintenance of additional resources and equipment.)

38) Your company is preparing to migrate its public website to Azure.

As a next step, the company must plan to _____ .

A- pay monthly usage costs

(When planning to migrate a public website to Azure, you must plan to pay monthly usage costs. This is because Azure uses the pay-as-you-go model.)

39) What are two characteristics of the public cloud? (SELECT TWO)

A- metered pricing

   self service management

40) You can change the Azure Active Directory (Azure AD) tenant to which an Azure subscription is associated.

A- True (The statement is true, you can change the Azure AD tenant to which an Azure subscription is associated.)

41) Your company has an on-premises network that contains several servers and plans to migrate all the servers to Azure.

You need to recommend a solution to ensure that some of the servers are available if a single Azure data center goes offline for an extended period.

What should you include in the recommendation?

A- fault tolerance (Fault tolerance is the ability of a system to continue to function in the event of a failure of some of its components.

In this question, you could have servers that are replicated across data centers.

Availability zones expand the level of control you have to maintain the availability of the applications and data on your VMs. Availability Zones are unique physical locations within an Azure region. Each zone is made up of one or more data centers equipped with independent power, cooling, and networking. To ensure resiliency, there are a minimum of three separate zones in all enabled regions. The physical separation of Availability Zones within a region protects applications and data from datacenter failures.

With Availability Zones, Azure offers industry best 99.99% VM uptime SLA. By architecting your solutions to use replicated VMs in zones, you can protect your applications and data from the loss of a datacenter. If one zone is compromised, then replicated apps and data are instantly available in another zone.)

42) You recently finished implementing a Software as a Service (SaaS) solution in Azure.

Which of the following options is your responsibility?

A- configuring the SaaS solution (When you are implementing a Software as a Service (SaaS) solution, you are responsible for configuring the SaaS solution. Everything else is managed by the cloud provider.

SaaS requires the least amount of management. The cloud provider is responsible for managing everything, and the end user just uses the software. Software as a service (SaaS)

allows users to connect to and use cloud-based apps over the Internet. Common examples are email, calendaring and office tools (such as Microsoft Office 365).)

43) An Azure resource inherits locks from its resource group.

A- True (When you apply a lock at a parent scope, all resources within that scope inherit the same lock. Even resources you add later inherit the lock from the parent. The most restrictive lock in the inheritance takes precedence.)

44) An Azure subscription can be associated to multiple Azure Active Directory (Azure AD) tenants.

A- False (An Azure subscription has a trust relationship with Azure Active Directory (Azure AD). A subscription trusts Azure AD to authenticate users, services, and devices.

Multiple subscriptions can trust the same Azure AD directory. Each subscription can only trust a single directory.)

45) To implement an Azure Multi-Factor Authentication (MFA) solution, you must sync on-premises identities to the cloud.

A- False (The statement is False. Azure MFA can be enabled for public cloud-only organisations, you don't need to have resources deployed in a traditional data center to deploy MFA.

Multi-factor authentication (MFA) is a process where a user is prompted during a sign-in event for additional forms of identification. This prompt could be to enter a code on their cellphone or to provide a fingerprint scan. When you require a second form of authentication, security is increased as this additional factor isn't something that's easy for an attacker to obtain or duplicate.

Azure AD Multi-Factor Authentication and Conditional Access policies give the flexibility to enable MFA for users during specific sign-in events.)

46) Azure Multi-Factor Authentication (MFA) can be required for administrative and non-administrative user accounts.

A- True (Azure Multi-Factor Authentication (MFA) can be implemented and activated for administrative and non-administrative user accounts. This is actually a best practice and helps to secure the working environment.)

47) An Azure virtual machine can be deployed to multiple resource groups at the same time.

A- False (An Azure virtual machine or any resource in Azure actually can be deployed (and exist) into a single resource group. This is one of the fields required when deploying a resource in Azure.)

48) Match the Azure service to the correct definition.

Service:

1 - Azure Databricks

2 - Azure Functions

3 - Azure App Service

4 - Azure Application Insights

Definition:

A - Provides the platform for serverless code.

B - A big data analysis service for machine learning

C - Detects and diagnoses anomalies in web apps

D - Hosts web app

Ans- 1-B, 2-A, 3-D, 4-C.

49) You plan to create an Azure virtual machine. You need to identify which storage service must be used to store the data disks of the virtual machine.

What should you identify? (CONTAINERS)

A- 1

(Azure managed disks are block-level storage volumes that are managed by Azure and used with Azure Virtual Machines.

Virtual hard drives (VHDs) that serve as disks for virtual machines are stored in page blobs, which can be found under option 1. - Containers.)

50) Please select all statements that are True (SELECT THREE).

A- Transferring data between Azure Storage accounts in different Azure regions is not free.

   If you store 10 TB of data in Azure Blob storage, the pricing will be different and it depends on which Azure region your data is located in.

   When using a general-purpose v2 Azure Storage account, you pay for the amount of data stored and for all read and write operations performed.