1. **What is Azure Backup?:** An azure service you can use to back up (or protect) and restore your data in the Microsoft Cloud.
2. **What is Azure backup center?:** It provides a single unified management experience in azure for enterprises to govern, monitor, operate, and analyze backups at scale
3. **What are some key benefits of backup center?:** A single pane of glass to manage backups
Datasource-centric management
Connected experiences
4. **What is Azure Recovery Services vault?:** it stores backup data for various azure services such as IaaS VMs (linux or windows) and Azure SQL databases. It can be used to back up azure file shares and on-premises files and folders
5. **How do you configure on-premises file and folder backups?:** 1. Create the recovery services vault.
2. Download the agent and credential file.
3. Install and register agent
4. Configure the backup
6. **What is the Microsoft Azure Recovery Services (MARS) agent?:** It allows you to connect to Azure backup and backup files and folders, it doesn't require a backup server, its not application aware and allows you to restore a file, folder, or volume.
7. **What options to you have to backup your VMs?:** Azure backup
Azure site recovery
Managed disk snapshots
Images
8. **What is Azure site recovery?:** It protects your VMs from a major disaster scenario when a whole region experiences an outage due to major natural disaster or widespread service interruption. You can recover with a single click in a matter of minutes and replicate to an Azure region of your choice.
9. **What are Managed disk snapshots?:** In dev and test environments, snapshots are a quick and simple option for backing up VMs that use managed disks. You are only billed for the used data size.
10. **What are images?:** Can be created from a custom VHD in a storage account or directly from a generalized (sysprepped) VM. You can then create vms off of you image and it will contain all managed disks needed for the vm.
11. **What are the two phases of an Azure backup job?:** First, a virtual machine snapshot is taken, then the snapshot is transferred to the azure recovery services vault
12. **When is a recovery point considered created?:** When both steps of the azure backup job complete

13. **What is Recovery Services Vault?:** A storage entity in Azure that houses data. Its typically copies of data, or configuration information for virtual machines, workloads, servers, or workstation. It makes it easy to organize your backup data, while minimizing management overhead.
14. **What is the process of backing up azure virtual machines?:** Create a recovery services vault, Use the portal to define the backup, and backup the vm
15. **How do you restore a virtual machine?:** Locate it in the recovery services vault and trigger the restore operation.
16. **What is the advantage of backup up VMs using a Data protection manager (DPM) or Microsoft azure backup server (MABS) server?:** You can provide app-aware backups optimized for common apps. Including SQL server, exchange, and SharePoint. You don't need to install the Microsoft azure recovery services (MARS) agent on the machine you want to backup, the machines run the DPM/MABS protection agent and then the MARS agent runs on the backup server You have more flexibility and granular scheduling options
And can manage backups from multiple machines that you gather into protection groups in a single console.
17. **What is soft delete in Microsoft azure?:** It allows you to more easily recover your data when it is erroneously modified or deleted by an application or other storage account user. Its preserved for an additional 14 days even after backups are deleted
18. **What are the key capabilities of Azure Monitor?:** Monitor and visualize metrics, Query and analyze logs, setup alerts and actions
19. **What is the logical workflow of Azure monitor?:** Sources like applications, operating systems, and azure resources generate logs and store them in azure monitor. Azure monitor then creates metrics from that to provide insights, visualizations, analytics, responses, and integrations.
20. **What are metrics?:** Numerical values that describe some aspect of a system at a particular point in time.
21. **What are logs?:** Different kinds of data organized into records with different sets of properties for each type.
22. **What is the query language for azure monitor logs?:** A version of the data explorer query language
23. **When does Azure monitor start collecting data?:** As soon as you create an azure subscription and add resources. You can enable diagnostics and add an agent to computer resources to gather further information.
24. **What can you determine from activity log?:** The what, who, and when, for any write operation taken on your resources.
25. **How long are activity logs kept?:** For 90 Days

26. **What are the categories of events?:** Administrative, service health, resource health, alert, autoscale, recommendation, security, and policy.
27. **What are Azure Monitor alerts?:** Its a better notification system that compiles reports from many azure services that keep you informed about the state of your environment
28. **What alert states are there?:** New - has not been reviewed
Acknowledged - Reviewed and is being worked on
Closes - Resolved
29. **What are alert rules?:** Notifications defined by you by defining target resource, signal, criteria, alert name, alert description, severity, and action.
30. **What is an action group?:** A collection of notifications preferences defined by the owner of an azure subscription
31. **What options are available with action groups?:** Notification method
Actions to perform
Automation runbook
Azure function
ITSM connection
Logic App
Webhooks for https and http
32. **What is Azure log analytics?:** A service that helps you collect and analyze data generated by resources in your cloud and on-premises environments.
33. **What do you need to get started with log analytics?:** Add a workspace with a name
a subscription
a resource group that contains one or more azure virtual machines
the location for your vms
and the workspace will automatically use the per GB pricing plan
34. **What are connected sources with log analytics?:** The computers and other resources that generate data collected, agents can be installed on windows and linux computers
35. **What on prem service should be set up to work with log analytics?:** System center operations manager (SCOM)
36. **What are data sources in log analytics?:** The different data collected from each connected source. Like events and performance data from windows and linux agents
37. **Whats the steps of building queries in log analytics?:** You start by determining which tables have the data that your looking for, Then enter a series of operations separated by a pipe character |. Some sample operators are count, Limit, Summarize, Top, and Where

38. **What is azure network watcher?:** It provides tools to monitor, diagnose, view metrics, and enable or disable logs for resources in an azure virtual network.
39. **What are some features of azure network watcher?:** Automate remote network monitoring with packet capture, gain insight into your network traffic using flow logs, diagnose VPN connectivity issues, Verify IP flow, Next hop, VPN diagnostics, NSG flow logs, Connection troubleshoot
40. **What is the purpose of IP flow verify?:** Checks if a packet is allowed or denied to or from a virtual machine.
41. **What is a use case for IP flow verify?:** Enables you to specify a source and destination IPv4 address, port, protocol, and traffic direction. Like deploying a vm and testing to see if any rules prevent communication with other resources
42. **What is the purpose of next hop?:** to determine if traffic is being directed to the intended destination, and helps determine if network routing is correctly configured.
43. **What is a use case for next hop?:** A vm can no longer communicate with other resources because of a specific route. With this tool you can specify a source and destination ipv4 address and let you know what is used to route the traffic. You can remove, change, or add a route. It also returns a route table associated with the hop
44. **What is Network Watchers Topology capability?:** Generates a visual diagram of the resources in a virtual network, and the relationships between the resource.
45. **What is a requirement of network watcher to generate topologies?:** It needs to be in the same region as the virtual network
46. **What are the three signal types you can use to monitor your environment?-:** Metric alerts to provide an alert trigger when a specific threshold is exceeded
Activity Log alerts notify you when azure resources change state
Log alerts are based on things written to log files
47. **What is the composition of an alert rule?:** Resource, Condition, Actions, Alert Details
48. **What is resource in alert rules?:** the target resourced for the alert rule
49. **What is condition in alert rule?:** The signal type to be used to assess the rule. It can be a metric, an activity log, or logs.
The alert logic applied to the data that's supplied via the signal type
50. **What is the actions in alert rule?:** The action, like sending an email
An action group, which typically contains a unique set of recipients for the action
51. **What is the alert details in alert rule?:** The alert name and the alert description should specify the alerts purpose
The severity of the alert or logic test.
0 for critical
1 for error
2 for warning

3 for informational
4 for verbose
52. **What alert capabilities aren't yet available for this generation of monitoring data?:** Service health alerts based on activity logs
Web availability tests through Application insights
53. **What are the restrictions for the alert page?:** You are limited to report on a max of five subscriptions, You can only have one resource group, The time ranges are the past hour, past 24 hours, past 7 days, and past 30 days
54. **What are static threshold metrics?:** Based on simple static conditions and thresholds that you define
55. **What are dynamic threshold metrics?:** Uses machine learning tools that azure provides to automatically improve the accuracy of the thresholds defined by the initial rule.
56. **What are dimensions in azure monitoring?:** Enables monitoring data to be supplied from multiple target instances.
57. **What is the composition of log search rules?:** Log query
Time Period
Frequency
Threshold
58. **What do metric assessment logs need to function?:** Aggregate function - The calculation that will be made against the result data
Group Field - A Field by which the result will be grouped
Interval - the time interval by which the data is aggregated
Threshold - a point defined by an aggregated value and total number of breaches
59. **What is an activity log?:** Lets you be notified when a specific event happens on some azure resource, like if a new vm is created in a subscription
60. **What types of activity log alerts are there?:** Specific operations - applied to resources within your azure subscription
Service health events - notice of incidents and maintenance of target resources
61. **What are the attributes of an activity log alert?:** Category
Scope
Resource Group
Resource Type
Operation Name
Level
Status
Event initiated by
62. **How do you create a service health alert?:** To create a new alert, search for and select service health, the health alerts, and create a service health alert.

63. **What are smart groups in azure monitor?:** An automatic feature using machine learning to join alerts based on repeat occurrence or similarity. They enable you to address a group of alerts instead of each alert individually.
64. **What is the most common type of log entry?:** An event - Can occur sporadically rather than at fixed intervals or according to a schedule.
65. **Where is log data stored in azure monitor?:** A log analytics workspace
66. **Where are metrics stored in azure monitor?:** a time-series database
67. **What is the language used to query logs?:** the kusto query language, also used by azure data explorer
68. **What kind of requests does Kusto queries make?:** Read only requests