Basic Intro SharePoint Architecture Questions

1) What are Web Applications in SharePoint?

An IIS Web site created and used by SharePoint 2010. Saying an IIS virtual server is also an acceptable answer.

2) What is an application pool?

A group of one or more URLs that are served by a particular worker process or set of worker processes.

3) Why are application pools important?

They provide a way for multiple sites to run on the same server but still have their own worker processes and identity.

4) What are zones?

Different logical paths (URLs meaning) of gaining access to the same SharePoint Web application.

5) What are Web Application Policies?

Enables security policy for users at the Web application level, rather than at the site collection or site level. Importantly, they override all other security settings.

6) What is a site collection?

A site collection contains a top-level website and can contain one or more sub-sites web sites that have the same owner and share administration settings.

7) What are content databases?

A content database can hold all the content for one or more site collections.

8) What is a site?

A site in SharePoint contains Web pages and related assets such as lists, all hosted within a site collection.

9) What are My Sites?

Specialized SharePoint sites personalized and targeted for each user.
10) What is the difference between Classic mode authentication and Claims-based authentication?

As the name implies, classic authentication supports NT authentication types like Kerberos, NTLM, Basic, Digest, and anonymous. Claims based authentication uses claims identities against a trusted identity provider.

11) When would you use claims, and when would you use classic?

Classic is more commonly seen in upgraded 2007 environments whereas claims are the recommended path for new deployments.

12) Describe the potential components for both a single server, and multiple servers, potentially several tiered farms:

A single-server SharePoint Server 2010 environment leverages a built-in SQL Server 2008 Express database. The problems with this environment is scalability, not being able to install the with built-in database on a domain controller, the database cannot be larger than 4 GB, and you cannot use User Profile Synchronization in a single server with built-in database installation.

An example of a multiple tier farm would be a three-tier topology, considered one of the more efficient physical and logical layouts to supports scaling out or scaling up and provides better distribution of services across the member servers of the farm. This is considered a good architecture since one can add Web servers to the Web tier, add app servers to the application tier, and add database servers to the database tier.

SharePoint Backup and Restore Questions

13) What are some of the tools that can be used when backing up a SharePoint 2010 environment?

- SharePoint farm backup and recovery
- SQL Server
- System Center Data Protection Manager

14) What Microsoft tool can be used for incremental backups?

System Center Data Protection Manager

Managed Metadata Questions

15) What is Managed Metadata?

Managed metadata is a hierarchical collection of centrally managed terms that you can define, and then use as attributes for items.
16) What are Terms and Term Sets?

A term is a word or a phrase that can be associated with an item. A term set is a collection of related terms.

17) How do Terms And Term Sets relate to Managed Metadata?

Managed metadata is a way of referring to the fact that terms and term sets can be created and managed independently from the columns themselves.

18) Are there different types of Term Sets?

There are Local Term Sets and Global Term Sets, one created within the context of a site collection and the other created outside the context of a site collection, respectively.

19) How are terms created and used?

There are several ways; however the most common is to use the Term Store Management Tool.

20) How is Managed Metadata, and the related Term technology used?

Through the UI, the most common use is through the managed metadata list column which allows you to specify the term set to use. It also related to searching and enhancing the user search experience.

Sandbox Solutions Questions

21) What is a sandboxed solution?

Components that are deployed to run within the sandboxed process rather than running in the production Internet Information Services (IIS) worker process.

22) What are some examples of things that might run within the SharePoint sandbox?

Any of the following are acceptable answers:

Web Parts
Event receivers
Feature receivers
Custom Microsoft SharePoint Designer workflow activities
Microsoft InfoPath business logic

others….

23) Why are sandboxed solutions used?
Primarily because they promote high layers of isolation. By default they run within a rights-restricted, isolated process based around Code Access Security (CAS). Isolation is possible to increase with activities like running the sandboxing service on only specific SharePoint 2010 servers.

**SharePoint Search Questions**

**24) What is a content source in relation to SharePoint search? What’s the minimum amount of content sources?**

A content source is a set of options that you can use to specify what type of content is crawled, what URLs to crawl, and how deep and when to crawl. You must create at least one content source before a crawl can occur.

**25) What is a search scope?**

A search scope defines a subset of information in the search index. Users can select a search scope when performing a search.

**26) What is a federated location with SharePoint search?**

Federated locations provide information that exists outside of your internal network to your end-users.

**27) How does managed metadata affect search?**

Enhances the end-user search experience by mapping crawled properties to managed properties. Managed properties show up in search results and help users perform more successful queries.

**28) What is query logging in SharePoint 2010?**

Collects information about user search queries and search results that users select on their computers to improve the relevancy of search results and to improve query suggestions.

**29) What authentication type does the SharePoint crawler use?**

The crawl component requires access to content using NTLM authentication.

**Services Architecture Questions**

**30) Please describe what a Service Application is in SharePoint 2010.**

Service applications in SharePoint 2010 are a set of services that can possibly be shared across Web applications. Some of these services may or may not be shared across the SharePoint 2010
31) Please provide an example of one of these service applications.

Any of the below are acceptable answers:

Access Services
Business Data Connectivity service
Excel Services Application
Managed Metadata service
PerformancePoint Service Application
Search service
Secure Store Service
State service
Usage and Health Data Collection service
User Profile service
Visio Graphics Service
Web Analytics service
Word Automation Services
Microsoft SharePoint Foundation Subscription Settings Service

32) What are Service Application Groups used for?

Just provides a logical grouping of services that are scoped to a particular Web Application.

33) How are Service Applications deployed in terms of IIS (Internet Information Services)?

They are provisioned as a single Internet Information Services (IIS) Web site.

34) Explain how connections are managed with Service Applications.

A virtual entity is used that is referred to as a proxy, due to label in PowerShell.

35) What are some common examples of SharePoint 2010 services architectures, and what are the advantages of each design?

The three most popular designs are single farms with either a single service application group or multiple service application groups, or Enterprise services farms.

Single farms with a single service application group are generally the most common, and have the advantages of easy deployment, simple service application allocation, effective resource utilization and cohesive management.
Single farms with multiple service application groups is less common, and have the advantage of potential individual management of service applications as well as allowing data isolation, and while being more complex to deploy and maintain allows targeting of sites to particular service applications.

Enterprise Service Farms is pretty uncommon as it is a complete farm dedicated to Service Applications but promotes autonomous management and high levels of data isolation.

36) Are there any other type of relevant service architectures?

Depending on the environment requirements, a specialized farm can also be used in order to deploy specific services tailored to the organizational requirements which can aid in scaling out and conservation of resources.

37) What is the User Profile service?

Allows configuring and managing User profile properties, Audiences, Profile synchronization settings, organization browsing and management settings, and My Site settings.

38) What are User Profiles?

Aggregates properties from diverse identity content sources together to create unified and consistent profiles across an organization, used throughout the SharePoint environment.

39) What is Excel Services?

Allows sharing, securing, managing, and using Excel 2010 workbooks in a SharePoint Server Web site or document library. Excel Services consists of the Excel Calculation Services (ECS), Microsoft Excel Web Access (EWA), and Excel Web Services (EWS) components.

40) What is PerformancePoint Services?

Allows users to monitor and analyze a business by building dashboards, scorecards, and key performance indicators (KPIs).

41) What is Visio Services?

Allows users to share and view Microsoft Visio Web drawings. The service also enables data-connected Microsoft Visio 2010 Web drawings to be refreshed and updated from various data sources.

42) What is Access Services?

Allows users to edit, update, and create linked Microsoft Access 2010 databases that can be viewed and manipulated by using an internet browser, the Access client, or a linked HTML page.
43) What is the Secure Store Service (SSS)?

A secure database for storing credentials that are associated with application IDs

44) What is Content Deployment?

Content deployment enables you to copy content from a source site collection to a destination site collection.

**Backup / DR Questions**

45) Describe how redundancy can be built into a SharePoint environment. Please be specific in regards to any auxiliary components.

Multiple front-end web servers (WFE’s) can be deployed and correlated through Windows NLB or anything approach. Application servers can be deployed into the farm for a variety of purposes, depending on organizational requirements. Databases can be clustered or mirrored, again depending on requirements and environment.

46) From a basic standpoint, what is the difference between SQL clustering and mirroring?

Clustering provides a failover scenario whereby one or more nodes can be swapped as active depending on whether a node goes down. In mirroring, transactions are sent directly from a principal database and server to a mirror database to establish essentially a replica of the database.

**Governance Questions**

47) What Is Governance in terms of SharePoint 2010?

Governance is the set of policies, roles, responsibilities, and processes that guide, direct, and control how an organization’s business divisions and IT teams cooperate to achieve business goals.

48) What are some useful, OOB features of SharePoint that aid with governance of an environment?

Any of the below are acceptable answers. There are some others but these are the major ones that I generally look for from a candidate:

**Site templates** – consistent branding, site structure, and layout can be enforce a set of customizations that are applied to a site definition.

**Quotas** – limits to the amount of storage a site collection can use.
Locks - prevent users from either adding content to a site collection or using the site collection.

Web application permissions and policies – comprehensive security settings that apply to all users and groups for all site collections within a Web application.

Self-service site creation - enables users to create their own site collections, thus must be incorporated into a governance scheme.

Monitoring Questions

49) Describe the monitoring features that are baked into SharePoint 2010.

Diagnostic logging captures data about the state of the system, whereas health and usage data collection uses specific timer jobs to perform monitoring tasks, collecting information about:

- Performance Counter Data
- Event Log Data
- Timer Service Data
- Metrics For Site Collections and Sites
- Search Usage Data

General Workflow Questions

50) What is a declarative workflow? Can non-authenticated users participate in workflows?

Workflows created by using Microsoft SharePoint Designer 2010, the default setting enables deployment of declarative workflows. Yes, however you do not give non-authorized users access to the site. The e-mail message and attachments sent from notifications might contain sensitive information.