Frequently asked Interview Questions in Basic SAN

1) Differerence b/w SAN and NAS ?

   The basic difference between SAN and NAS , SAN is Fabric based and NAS is Ethernet based.SAN - Storage Area NetworkNAS - Network attached Storage

2) Explain each of these Storage area components ?

   Fabric Swictch: It's a device which interconnects multiple network devices .There are swithes starting from 16 port to 32 ports which connect 16 or 32 machine nodes etc.Vendors who manufacture these kind of switches are Brocade, McData,Cisco.

   FC Controllers : These are Data transfer medias they will sit on PCI slots of Server,u can configure Arrays and volumes on it.

   JBOD: Just Bunch of Disks is Storage Box,it consists of Enclosure where set of harddrives are hosted in many combinations such SCSI drives,SAS ,FC,SATA.

3) What is the most critical component in SAN ?

   Each component has its own criticality with respect to buisness needs of a company.

4) Define RAID ? Which one you feel is good choice ?

   RAID (Redundant array of Independent Disks) is a technology to achive redundancy with faster I/O.There are Many Levels of RAID to meet different needs of the customer which are : R0,R1,R5,R10,R5.Generally customer choose R5 to achive better redundancy and speed and it is cost effective.

5) How is a SAN managed ?

   There are many management softwares used for managing SAN like :
   - EMC Navisphere Manager
   - IBM Tivoli Storage Manager.-
   - Veritas Volumemanger.

6) Which one is the Default ID for SCSI HBA ?

   Generally the default ID for SCSI HBA is 7.

7) How do you install device drivers for the HBA first time during OS installation ?

   In some scenarios you are supposed to install Operating System on the drives connected thru SCSI HBA or SCSI RAID Conrollers,but most of the OS'es will not be updated with drivers for those controllers,that time you need to supply drivers externally,if you are installing windows ,you need to press F6 during the installion of OS and provide the driver disk or CD which came along with HBA.If you are installing linux you need to type "linux dd" for installing any driver.

8) What is an Array ?

   Array is a group of Independent physical disks to configure any Volumes or RAID volumes.

9) What are the benefits of 4gb fibre channel ?

   Benefits include twice the performance with little or no price increase, investment protection with backward compatibility to 2Gb, higher reliability due to fewer SAN components (switch and HBA ports) required, and the ability to replicate, back up, and restore data more quickly. 4Gb Fibre Channel systems are ideally suited for applications that need to quickly transfer large amounts of data such as remote replication across a SAN, streaming video on demand, modeling and rendering, and large databases.

10) how is fibre channel different from iscsi ?

   Fibre Channel and iSCSI each have a distinct place in the IT infrastructure as SAN alternatives to DAS. Fibre Channel generally provides high performance and high availability for business-critical applications, usually in the corporate data center. In contrast, iSCSI is generally used to provide SANs for business applications in smaller regional or departmental data centers.