**1. What is the difference between OS and application software.**

**Operating system (OS)** provides a consistent environment for other software to execute commands. The OS gives users an interface with the computer so they can send commands (input) and receive feedback or results (output). Such as UNIX, Linux, OS/2.

**Application** Used to accomplish a particular task, an application is software that is written to supplement the commands available to a particular OS. Each application is specifically compiled (configured) for the OS on which it will run. For this reason, the application relies on the OS to do many of its basic tasks. Such as word processing, spreadsheets.

**2. What is the recommended hardware requirements of installing Windows Vista.**

|  |  |
| --- | --- |
| **Hardware** | **Vista (Home Premium/Business/Ultimate)** |
| Processor | 1 GHz 32-bit (x86) or 64-bit (x64) processor |
| Memory | 1GB |
| Free Hard Disk Space | 15GB free on a 40GB drive |
| Video | Support for DirectX 9 |
| CD-ROM | DVD-ROM |
| Mouse/ Keyboard | Required |

**3. Write the four task name of OS.**

OS must communicate with the computer hardware to perform the following tasks:

* Disk and file management
* Device access
* Memory management
* Output format

**4. What is shell of an OS.**

**Shell** is a program that runs on top of the OS and allows the user to issue commands through a set of menus or some other graphical interface. Shells make an OS easier to use by changing the user interface.

**5. Describe X86 and x64 .**

**x86:** The phrase *x*86 is commonly used to refer to operating systems intended to run on the Intel processor since Intel initially numbered their processors with numbers ending in 86 prior to switching to the Pentium line.

**x64:** The phrase *x*64 is commonly used to denote operating systems that can run on 64-bit processors.

**6. Write down the name of three main types of software.**

System software (Operating system), Application software, Driver software.

**7. What is the taskbar & where it is located?**

The taskbar is located at the bottom edge of the screen. This bar allows the user to locate and launch programs through the start button. The taskbar is visible all the time unlike the desktop which maybe obstructed by windows on top of it.

**8. What is multithreading?**

**Multithreading** means the ability of a single application to have multiple requests in to the processor at one time. This results in faster application performance, because it allows a program to do many things at once.

**9. Describe 32 bit and 64 bit.**

**32-bit** is an operating system that is 32-bit is one that can not only run on 32-bit processors but can utilize the capabilities of the processor fully.

**64-bit** is a 64-bit operating system is one that is written to utilize the instructions possible with 64-bit processors.

**10. Why do you use these commands?**

**Ping(packet Internet groper)-** forconnectivity troubleshooting

**Ipconfig-** for network connection troubleshooting

**11. Write 10 DOS Command and their uses?**

**Command Purpose**

**ATTRIB-** Allows the user to set or remove file attributes.

**CD-** Changes your current folder to another folder (same as CHDIR).

**CHKDSK-**  Examines the machine’s hard drives.

**CLS -** Clears the screen.

**CONVERT-**  Converts a FAT file system to an NTFS file system.

**COPY-**  Copies a file into another directory.

**DEL-**  Deletes a file from the folder.

**DIR -** Displays the contents of the current folder.

**EDIT -** Allows you to edit text files.

**FIND -** Searches for a text string in one file or several files.

**12. Write the minimum Hardware requirements for XP & Vista & Windows 7.**

|  |  |  |  |
| --- | --- | --- | --- |
| **Hardware** | **XP** | **Vista** | **Windows 7** |
| Processor | Pentium 133 | 800MHz | 1 GHz 32-bit (x86) or 64-bit (x64) processor |
| Memory | 64MB | 512MB | 1GB |
| Free Hard  Disk Space |  |  | 16 GB |
| Video |  | Support for DirectX 9 | Support for DirectX 9 |
| CD-ROM |  |  |  |
| Mouse/ Keyboard | Required | Required | Required |

**13. What is Device manager?**

Device Manager is used in Windows to configure all hardware resources that Windows knows about. Device Manager shows a list of all installed hardware and lets you add items, remove items, update

drivers, and more.

**14. Write the difference between workgroup & domain?**

**Workgroup** is a collection of peer-to-peer computers with no dedicated server or centralized security.

**Domain** is also referred to as a client-server networking model, a domain is a network where security is managed by a centralized server, often known as a domain controller.

U=6

LANs, WANs, PANs, and MANs

Primary Network Components

Network Resources

Peer-to-peer and client-server

Network Topologies

Star Topology

OSI Model

OSI model layers

CSMA/CD

Network interface card (NIC)

Cabling types

Shielded twisted-pair (STP) and unshielded twisted-pair (UTP)

Wiring Standards

Fiber-optic cabling

Fiber-Optic Connector Types

Cabling Tools

Access Points

Hubs

Switches

Routers

NAS

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U=7

Understanding TCP/IP

DOD and OSI models

TCP/IP protocol suite

DHCP, DNS, FTP, HTTP, HTTPS, IMAP, SSH, SNMP. Telnet

Well-known ports

Common port numbers

Parts of the IP Address

IPv4 Address Classes

Public vs. Private IP Addresses

Private IP address ranges

Automatic Private IP Addressing