#### **Army Goodwill public school rajouri**

**Holidays homework class XII**

#### Q1. What do you mean by Network?

**Answer:**  
Set of devices connected to each other over the physical medium is known as a computer network. For example the Internet.

#### Q2. What do you mean by Node?

**Answer:**  
In the computer network, the node is known as a device.

#### Q3. What do you mean by Network Topology?

**Answer:**  
A [network topology](https://www.educba.com/what-is-network-topology/) is a physical structure of the network which defines how the computers or node will be connected to each other.  
**View Cour**Q4. What is Routers?

**Answer:**  
A router is a device which is responsible for sending data from source to destination over the computer network.

#### Q5. What is the OSI model?

**Answer:**  
OSI model stands for Open System Interconnection. It’s a reference model which describes that how different applications will communicate to each other over the computer network.

#### Q6. Explain the Different layers of the OSI model.

**Answer:**  
The different layers of the OSI model are given below:

|  |  |
| --- | --- |
| **Physical Layer** | Converts data bit into an electrical impulse. |
| **Datalink Layer** | Data packet will be encoded and decoded into bits. |
| **Network Layer** | Transfer of datagrams from one to another. |
| **Transport Layer** | Responsible for Data transfer from one to another. |
| **Session Layer** | Manage and control signals between computers. |
| **Presentation Layer** | Transform data into application layer format. |
| **Application Layer** | An end user will interact with the Application layer. |

#### Q7. Describe Hub, Switch and Router?

**Answer:**

* **Hub:**Hub will broadcast all data to every port. It has a common connection point for all devices.
* **Switch:** Switch will create the dynamic connection and provide information to the requesting port.
* **Router**: Router is the devices which will be responsible for forwarding data packets.

#### Q8. What do you mean by the TCP/IP Model?

**Answer:**  
TCP/IP stands for Transmission control protocol and Internet protocol. It describes how the data will get transmitted and routed from end to end communication.

#### Q9. Explain the different Layers of TCP/IP Model.

**Answer:**  
Application Layer, Transport Layer, Network or Internet Layer, Network interface layer.

#### Q10. What do you mean by HTTP?

**Answer:**  
HTTP stands for Hyper Text Transfer Protocol and the port for this is 80. This protocol is responsible for web content.

#### Q11. What do you mean by TCP and UDP?

**Answer:**  
TCP stands for Transfer control protocol and UDP stands for User Datagrams protocol and TCP is a connection-oriented protocol and UDP is a Connectionless protocol.

#### Q12. What do you mean by a Firewall?

**Answer:**  
Firewall is a concept of a security system that will helps computers to protect it with unauthorized access or any cyber-attack.

#### Q13. What do you mean by DNS?

**Answer:**  
DNS Stands for Domain Name System. It’s an internet address mapping process with the local name. We can also call it as an internet phonebook.

#### Q14. What do you mean by Proxy server?

**Answer:**  
Proxy server prevents the external users which are unauthorized to access the network.

#### Q16. What do you mean by NIC?

**Answer:**  
NIC stands for Network interface card. It is an adapter that will be installed on the computer and because of that NIC, only that computer will interact with the network.

#### Q17. What do you mean by ASCII?

**Answer:**  
ASCII is the American Standard Code for Information Interchange.

#### Q18. What are the types of mode available in Network?

**Answer:**  
Data transferring mode in a computer network will be of three types:  
Simplex, Half-Duplex and Full Duplex.

#### Q19. What do you mean by SLIP protocol?

**Answer:**  
SLIP stands for Serial Line Interface Protocol. It is used for sending IP datagram over a network in a single line.

Let us move to the next Computer Network Interview Questions.

#### Q20. What are the key elements of the protocol?

**Answer:**  
There are three key elements of the protocol:  
**Syntax:**Describe the format of the data. **Semantics:** Describes the meaning of each section. **Timings:** Explain the timing that how fast the data can be sent.

#### Q21. What do you mean by Decoder?

**Answer:**  
A decoder is a program which converts the encrypted data into its actual format.

#### Q22. What is the role of IEEE in the world of computer network?

**Answer:**  
IEEE full form is the Institute of Electrical and electronic Engineer which is used to define and develop the standards which will be used over the network.

## ***Q23 What is Network Topology?***

Answer

The physical layout of the computer network is called as Network Topology. It gives the design of how all the devices are connected in a network.

|  |  |
| --- | --- |
| Type | Description |
| Bus Topology | All the devices share a common communication line |
| Star Topology | All nodes are connected to a central hub device |
| Ring Topology | Each node connects to exactly two other nodes |
| Mesh Topology | Each node is connected to one or more nodes |
| Tree Topology (Hierarchical Topology) | Similar to star topology and inherits the bus topology |
| Daisy Chain Topology | All nodes are connected linearly |
| Hybrid Topology | Nodes are connected in more than one topology styles |
| Point-to-Point Topology | Connects two hosts such as computers, servers, etc |

***Q24 What is a UTP cable?***

A UTP cable is a 100 ohms cable made up of copper. It consists of 2-1800 unshielded twisted pairs that are surrounded by a non-metallic case. These twists provide immunity to electrical noise and EMI.

## ***Q25 Explain what is NOS?***

A Network Operating System (NOS) is an Operating System that is designed to support workstations, databases, personal computers, etc over a network. Some examples of NOS are MAC OS X, Linux, Windows Server 2008, etc. These Operating Systems provide various functionalities such as processor support, multiprocessing support, authentication, Web services, etc.

## ***Q26.What is SLIP?***

SLIP stands for Serial Line Internet Protocol which allows a user to access the internet using the modem.