NETWORKING

One mark Questions/Answers

1. InfoPark Consultancy is planning to link its head office situated at Delhi with the offices at Chennai. Suggest two economic ways to connect it, if the company is ready to compromise on the speed of connectivity.

Ans. (a) Radio Link/Radio Wave and Satellite Link or WAN.

2. Write down any two examples of PHP applications.

Ans. To develop Server-side application and dynamic web content.

3. What is the full form of LAMP?

Ans. **LAMP** consists of Linux, Apache, MySQL, and PHP.

4. What is ODF?

Ans. The Open Document Format for Office Applications (**ODF**), also known as OpenDocument, is an XML-based file format for spreadsheets, charts, presentations and word processing documents.

5. Name the supported platforms for Python?

Ans. Windows, Linux, and OS X

6. What is the full form of WIMP?

Ans. In human–computer interaction, **WIMP** stands for "**windows, icons, menus, pointer**", denoting a style of interaction using these elements of the user interface. It was coined by Merzouga Wilberts in 1980.

7. What is **FSF**?

Ans. The Free Software foundation (FSF) is a non-profit organization created by Richard Stallman in 1985 to support GNU project and GNU licences.

Two marks Questions/Answers

1.   Name the protocol which is used by DNS name servers. How many IP address is associated with a domain name?

Ans.   DNS (Domain Name System) uses UDP (User Datagram protocol) for communication between servers. Every domain name has at least one IP address associated with it.

2.   Summer International school is planning to connect all computers, each spead over distance within 50 meters. What type of network is formed? Suggest an economical cable type having high-speed data transfer, which can be used to connect these computers.

Ans.   LAN type of network will be formed. The cable type is Optical Fiber.

3.   How does denial of service affect Internet access?

Ans.   Denial of service affects Internet where, the network traffic flooded the available Internet connection, so that no users could access e-Bay for a few hours.

4.   Compare coaxial and optical fiber cable.

Ans.   Coaxical cable consists of solid wire core surrounded by one or more foil or braided wire shields, each separated from the other by some kind of plastic insulator. It is mostly   used in the cable wires. Optical fiber cable consists of thin strands of glass or glass like material which are so connected that they carry light from source at one end to destination at the other end. The main advantage of this cable is its complete immunity to noise. But, this cable is very expensive as compared to the coaxial cable.

5.   which communication channel is suitable when very fast communication between two offices in two different countries is required? State two disadvantages of the channel.

Ans Satellite communication is required. The disadvantages are:

- The laying and maintenance of intercontinental cable is difficult and expensive.
- The high investment cost and insurance cost is associated with significant of probability of failure.

6.   Name the device which handles the connection between two or more networks which may have different protocols. Who provides the IP address to Internet users and how many?

Ans.   Router. A router has only one IP address and that is the one which is assigned to the internet user by the ISP.

7.   Write two advantage of optical fiber cable.

Ans.   Two advantages optical fiber cable are:
-        it is free from any type of disturbances like noise distortion
-        due to its extreme high bandwidth, it allow data to be sent far greater distances.

8.   Write two snooping methods used by hackers/crackers.

Ans.   Key-loggers to monitor key strokes and capture passwords.

9.   Mr Ram is interested in transferring songs from his mobile to Mr. Shyam's mobile. Suggest two suitable wireless options he may use for doing the same

Ans.   Bluetooth and Wi-Fi.

10.   Two doctors have connected their mobile phones to transfer a picture file of a person suffering from a skin disease. What type of network is formed? Which communication media out of Coaxial cable, Optical fiber, Bluetooth, Satellite link should be used to transfer the file?

Ans.   PAN, Bluetooth

11.   State reason why Star topology requires more cable length than Bus topology.

Ans   Star topology involves a central hub or switch to which all individual node(s) are   connected with individual cable, therefore more cable is required in Star topology than Bus topology.

12. "Open Source Software developers work for the good of community". Is this statement true? Give reason.

Ans Yes, the above statement is true.
- ● Open source developers choose to make the source code of their software publicly available to which many developers can view/use the software and also modify it.
- ● Users can download the software free of cost. So, they work for the good of the community.

13. What happens during 'Domain Name Resolution'?

Ans The process of translating a domain name to an IP address is called Domain name resolution.

14. How is 'Denial of service' attack, a threat to Network security?

Ans Denial-of-service (DoS) is an indication that an attacker (hacker) or unauthorized user has attempted to connect/access data and thus suggests a threat on network security.

15. Vidya College has three departments that are to be connected into a network. Which of the following communication medium (out of the given options), should be used by the college for connecting their departments for very effective High Speed communication?
· Coaxial Cable
· Optical Fiber
· Ethernet Cable
Also name the type of network (out of PAN/LAN/WAN) formed.

Ans Optical fiber
LAN

16. State reason why Star topology requires more cable length than Bus topology.

Ans As Star topology involves a central hub or switch to which all individual node(s) are connected with individual cable, therefore more cabling is required than Bus topology.

17. Seema needs a network device that should regenerate the signal over the same network before the signal becomes too weak or corrupted. Amit needs a network device to connect two different networks together that work upon different networking models so that the two networks can communicate properly.
Name the devices that should be used by Seema and Amit.

Ans Seema should use Repeater
Amit should use Gateway

18. How is a domain name related to an IP address?

Ans domain name has a corresponding IP Address.
Note :
● Full 2 marks to be allotted if reason represented with the help of example.
● Full 2 marks to be allotted if definitions of Domain name and
IP address are stated.

19. How is firewall useful in ensuring network security?

Ans A Firewall permits only that data to enter or leave a computer/Network for which permissions have been granted by the computer/network administrator.

20. The 'Chalchitra' theatre has a computer network. The network is in one building.
(i) Name this type of network(out of LAN/MAN/WAN). (ii) Name one communication
channel that can be used for fast communication between workstations of the network.

Ans: I. LAN   ii. Optical fiber cable

21. Explain in brief any 2 security threats to Computer networks.

Ans: 1. Denial of service attack: It is an attempt to make one or more network resources unavailable to their legitimate users.
2. Snooping: It is gaining unauthorized access to another person's or organization's data.

22. Write the advantages of using Unicode to represent text.

Ans: Unicode encoding standard provides the basis for processing, storage and interchange of text Data in any language in all modern software and information technology protocols.

23. Write on example each of URL and IP address.

Ans: URL http://www.cbse.nic.in/welcome.htm IP address 122.176.185.219

24. Identify the topology shown below. Write 2 advantages of this topology.
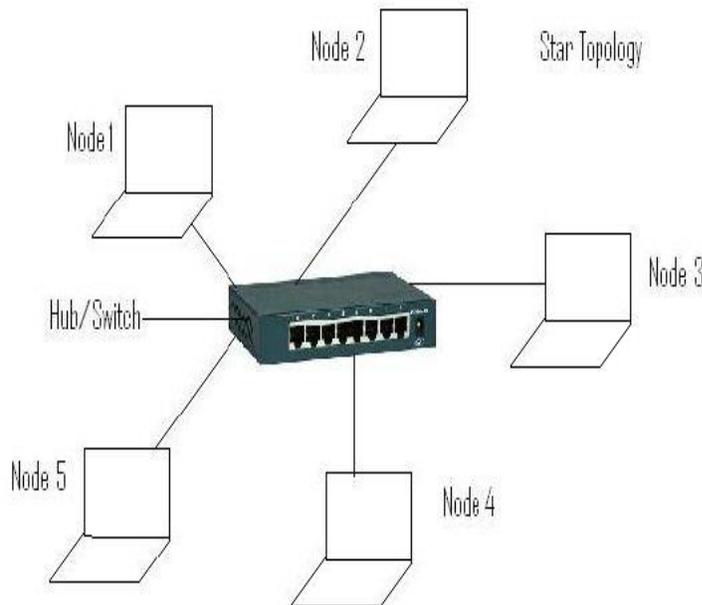
Ans.   Star Topology
Two advantages as follows:
1. easy to install.
2. Easy to diagnose the fault.