

Assignment

CCA -102 : DATA COMMUNICATIONS

Submitted By

Name : Battymery Rani

CSC ID : 645426570012

Ans 1. There are different type of networks : ① Personal Area Network (PAN) ② Local Area Network (LAN) ③ Wireless Local Area Network (WLAN) ④ Campus Area Network (CAN) ⑤ Metropolitan Area Network (MAN) ⑥ Wide Area Network (WAN) ⑦ Storage - Area Network (SAN) ⑧ System Area Network (SAN) ⑨ Passive Optical Local Area Network (POLAN) ⑩ Enterprise Private Network (EPN) ⑪ Virtual Private Network (VPN).

Ans 2. A Shielded twisted pair is a type of twisted pair cable that contain an extra wrapping foil or copper braid jacket to protect the cable from defects like cuts, losing bandwidth, noise, and signal to the interference. It is a cable that using used underground and therefore it is costly than UTP. While UTP is an unshielded Twisted pair cable used in computers and telecommunication medium. Its frequency range is suitable for transmitting both data and voice via a UTP cable. Therefore, it is widely used in the telephone, computer etc.

Ans 3. The different between baseband and Broadband :

1. It refers to a communication channel in which information is carried in digital form, while Broadband is the signal which are modulated as radio frequency analog waves that use different frequency range.
2. Baseband Lans are expensive and easier to install and maintain. While, Broadband system are generally more expensive because of the additional hardware involved.

Ans 4. A hub is the central part of a wheel where spokes come together. Hub cannot filter data packets are sent to all connected devices (computers and donot have intelligence to find out best path for data packets).

Modem is a hardware component that allow a computer or another device, such as a router or switch, to connect to the internet.

Router is a device that communicates between the internet and the devices in your home that connect to the internet.

Switch is a piece of a physical circuitry component that governs the signal flow.

Ans 5. Yes, that's because MAC addresses are hardwired into the NIC circuitry, not the PC. This also means that a PC can have different MAC address when another one replaced the NIC Card.

Ans 6. A Large percentage of a network is made up of hardware. Problems in these area can range from mal-functioning hard drives, broken NICs, and even hardware startups.

Ans 7. The best solution is to install anti-virus on all the computers in the network.

Ans 8. When a device is assigned a static IP address, the address does not change. Most devices use dynamic IP addresses, which are assigned by the network when they connect and change overtime.

Ans 9. TCP/IP signifies transmission control protocol/Internet protocol. It was created by ARPA, later DARPA in the late 1970s. It is a collection of communication protocol. It involves collection and methods for managing with packet transport media access, session interaction, data transfer, email and terminal emulation. The TCP/IP has four layers i.e Host to network layer, Internet layer, transport layer and application layers. The common TCP/IP protocol include the: Hypertext Transfer protocol (HTTP), HTTP secure, File Transfer Protocol.

Ans 10. A web browser, or simply 'browser', is an application used to access and view websites. Common web browsers include Microsoft Edge, Internet Explorer, Google Chrome, Mozilla Firefox, and Apple Safari.

Ans 11. A Search Engine is a web-based tool that enables users to locate information on the world wide web. Popular examples of search engine are Google, Yahoo!, and MSN Search.

Ans 12. Internet is a global system of interconnected computers that uses standard internet protocol suit to serve billions of users world wide. While, WWW are refers to world wide web, W3, or the web - is an interconnected system of public webpages accessible through the internet.

The internet is very much useful in our daily routine tasks. For example, it help us to see our notification and emails. It is a great way of providing and accessing information and is available almost all over the world. Apart from this, people can use the internet for money transfers, shopping order online food etc.

Ans 13. An Internet Service Provider (ISP) is a use fiber-optics, satellite, copper wire, and other forms to provide internet access to its customers. For example the ISP in India are Hathway, BSNL, TATA Teleservices, Verizon, Reliance Jio Airtel fibernet and many more working in India are as well as worldwide.

Ans. 14. The IP address of a device mainly helps in identifying the connection of a network. An IP address refers to the address that assist a user. It also define the specific behaviour of various internet routers.

The MAC address refers to a unique identifier that gets assigned to a Network Interface Card (NIC). It has a 64 bit or 48 bit address linked and connected to the concerned network adapter.

A Port number is the logical address of each application or process that uses a network or the internet to communicate. A port number uniquely identifies a network based application on a computer.

Ans 15. In the lower-left corner of the browser window, click and hold the back arrow. The page that opens contains your browser's history.
