COMPUTER NETWORK AND NETWORK TYPES

ASSIGNMENTS

Q.1 What is Computer network?

Q.2 What are the advantages of using computer network?

Q.3 What are the disadvantages of computer network?

Q.4 Write short notes on following

ARPANET,INTERNET,INTERSPACE

Q.5 Differentiate internet and interspace

Q.6 What is bandwidth?

Q.7 Write about different data transfer rates.

Q.8 Upto what distance repeaters will not be required for twisted

pair, coaxial and optical fiber cable.

Q.9 write the name of computer network devices?

Q.10 How NIC works?Types of NIC.

Q.11 what is the use of RJ45 connector?

Q.12 Which device is used for signal distribution?

Q.13 How hub works?

Q.14 Differentiate active hub and passive hub?

Q.15 Which device is known as intelligent hub?

Q.16 How switch works?

Q.17 What is modulation and demodulation?

Q.18 which device perform modulation and demodulation operation

Q.19 How modem works?

Q.20 what is the use of modem?

Q.21 How you access internet in your mobile without modem?

Q.22 when signal weakens due to long distance,which device is used to strengthen the signal.

Q. 23 What is the use of repeater?

Q. 24 How repeater works?

Q. 25 What is the use of router?

Q. 26 How router works?

Q .27 What is the use of gateway?

Q. 28 How gateway works?

Q. 29 Differentiate hub and switch?

Q. 30 Differentiate router and gateway?

Q. 31 what is computer network topology?

Q. 32 write names of different network topologies?

Q. 33 Draw the diagram of different network topologies?

Q. 34 What are the advantages of bus,star,ring,mesh,tree,hybrid
     topology

Q.35 What are the disadvantages of bus,star,ring,mesh,tree,hybrid
     topology

Q.35 Write fullform of – PAN,LAN,MAN,WAN,VAN

Q.36 Write short notes on – PAN,LAN,MAN,WAN,VAN

Q. 37 What is network layout?

Q. 38 What are the features of good network layout

Q. 39 Multipurpose Public School, Bangluru is Setting up the network between its Different Wings of school campus. There are 4 Wings namedasSENIOR(S),JUNIOR(J),ADMIN(A)andHOSTEL(H).Multipurpose Public School, Bangluru.
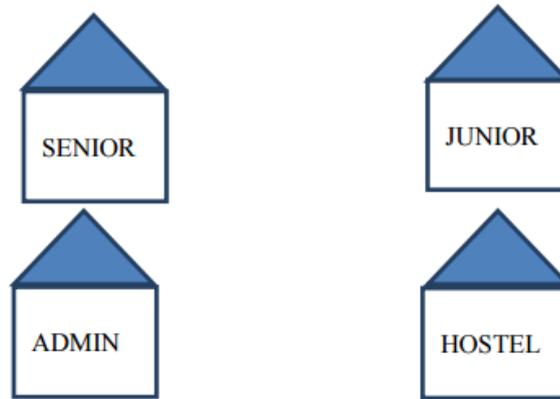
Distancebetweenvariouswingsaregivenbelow:

WingAtoWingS	100m
WingAtoWingJ	200m
WingAtoWingH	400m
WingStoWingJ	300m
WingStoWingH	100m
WingJtoWingH	450m

Number of Computers installed at various wings are as follows:

Wings	NumberofComputers
WingA	20
WingS	150
WingJ	50
WingH	25

(i) Suggest the best wired medium and draw the cable layout to efficiently
connect various wings of Multipurpose PublicSchool, Bangluru.

(ii) Namethe most suitablewing wherethe Servershouldbe installed.Justifyyour answer.

(iii) Suggest a device/software and its placement that would provide data security for the entire network of the School.

(iv) Suggest a device and the protocol that shall be needed to provide wireless
Internet access to all smartphone/laptop users in the campus of Multipurpose Public School, Bangluru.

Q. 40 Hi Standard Tech Training Ltd. is a Mumbai based organization which is expanding its office set-up to Chennai. At Chennai office compound, they are planning to have 3 different blocks for Admin, Training and Accounts related activities. Each block has a number of computers, which are required to be connected in a network for communication, data and resource sharing.
As a network consultant, you have to suggest the best network related solutions for them for issues/problems raised by them in (i) to (iv), as per the distances between various blocks/locations and other given parameters.

CHENNAI Office

- Admin Block
- Accounts Block
- Training Block
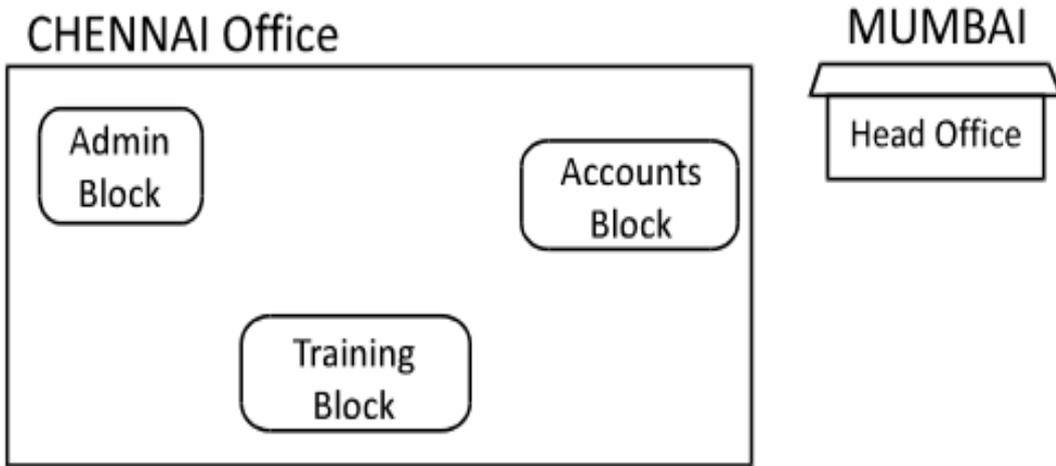
MUMBAI

- Head Office

Shortest distances between various blocks/locations :

Admin Block to Accounts Block	300 Metres
Accounts Block to Training Block	150 Metres
Admin Block to Training Block	200 Metres
MUMBAI Head Office to CHENNAI Office	1300 Km

Number of computers installed at various blocks are as follows :

Training Block	150
Accounts Block	30
Admin Block	40

(i) Suggest the most appropriate block/location to house the SERVER in the CHENNAI office (out of the 3 blocks) to get the best and effective connectivity. Justify your answer.

(ii) Suggest the best wired medium and draw the cable layout (Block to Block) to efficiently connect various blocks within the CHENNAI office compound.

(iii) Suggest a device/software and its placement that would provide data security for the entire network of the CHENNAI office.

(iv) Suggest a device and the protocol that shall be needed to provide wireless Internet access to all smartphone/laptop users in the CHENNAI office.