CLASS XII- Informatics Practices (065)
Home work

1.(a)	Ms. Kant Sengupta wants to prevent unauthorized access to/from his company's local area network. Write the name of a system (software/hardware), which he should install to do the same.
(b)	Seven Brother Fashion Inc. is a fashion company with design unit and market unit 130 meters away from each other. The company recently connected their LANs using Ethernet cable to share the stock related information. But, after joining their LANs, they are not able to share the information due to loss of signal in between. Which device out of the following should you suggest to be installed for a smooth communication? (i) Modem (ii) Repeater (iii) UPS
(c)	Which of the following is not a feature of Networking? (i) Resource sharing (ii) Reliability (iii) Uninterrupted power supply (iv) Reduced cost
(d)	Name any two Indian scripts included in Unicode.
(e)	Mr. Vidya Chauhan is confused between Proprietary and Open source software. Mention at least two points of differences to help her understand the same.
(f)	Identify the type of topology from the following: (i) In it, each node is connected with the help of a single co-axial cable. (ii) In it, each node is connected with the help of independent cable with the help of a central switching (communication controller).
(g)	Define the following with reference to Threats to network security. (i) Worm (ii) Trojan Horse
2.(a)	Raj kamal International school is planning to connect all computers, each spread over distance within 45 meters. Suggest an economical cable type having high-speed data transfer, which can be used to connect these computers.
(b)	Name two Indian Script included in UNICODE.
(c)	Write examples of one Proprietary and one Open Source Software.
(d)	Name any two most popularly used internet browsers.
(e)	Ms. Rani Sen, General Manager of Global Nations Corporate recently discovered that the communication between her company's accounts office and HR office is extremely slow and signals drop quite frequently. These offices are 125 meters away from each other and connected by an Ethernet cable. (i) Suggest her a device, which can be installed in between the offices for smooth communication. (ii) What type of network is formed by having this kind of connectivity out of LAN, MAN and WAN?
(f)	Give an advantage of using Star topology over Bus topology. Show a network layout of star topology to connect 5 computers.
(g)	Give suitable example of URL and Domain name.
3.(a)	Write the name of the most suitable wireless communication channels for each of the following situations. (i) Communication between two offices in different countries. (ii) To transfer the data from one mobile phone to another.
(b)	What is UNICODE? Name one Indian language, which is supported by UNICODE.

(c)	Expand the following terms:
	    (i) FLOSS
	    (ii) HTTP

(d)	Mr. Chandervardhan is not able to identify the Domain Name in the given URL. Identify and write it for him. http://www.cbse.nic.in/aboutus.htm
(e)	What do you understand by Network Security? Name two common threats to it.
(f)	Write one advantage of Star Topology over Bus Topology and one advantage of Bus Topology Over Star Topology.
(g)	What is MAC address? What is the difference between MAC address and an IP address?
4.(a)	Why is a switch called an intelligent hub ?
(b)	What was the objective behind developing UNICODE?
(c)	Expand the following terms: (i) OSS (ii) ODF
(d)	What is the use of Repeater in a Network?

(e)	Identify the following device :
	  (i) A device that is used to connect different types of network. It performs the necessary translation so that the connected network can communicate properly?
	  (ii) A device that converts data from digital bit stream into an analog signal and vice versa.

(f)	Write one advantage and one disadvantage of using Optical fiber cable.
(g)	Distinguish between Open Source Software and Proprietary Software.
5.(a)	A school with 20 stand-alone computers is considering networking them together and adding a server. State 2 advantages of doing this.
(b)	Distinguish between LAN and WAN.
(C)	What is the purpose of Modem in network?
(D)	Write one example of IP Address.
(e)	Define 'Domain Name Resolution'.
(f)	Name two threats to security in a network. What is the role of Firewall in Network security?
(g)	Write one advantages and one disadvantage of Open Source Software over Proprietary software.
6.(a)	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.
(b)	State reason why Star topology requires more cable length than Bus topology.
(c)	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.
(d)	How is a domain name related to an IP address?
(e)	How is firewall useful in ensuring network security?