COMMUNICATIONS   PAPER 1

Section A

1) What does WAN stand for?
2) Define a LAN.
3) What is a file server?
4) Explain the function of a hub in a network.
5) What is the purpose of a switch in a LAN?
6) What does a router do in networking?
7) What is the full form of ARPAnet?
8) What is the difference between a LAN and a WAN?
9) Define a modem.
10) What does WLAN stand for?
11) Explain the term peer-to-peer network.
12) What is a thin client?
13) What is a thick client?
14) What is a star topology?
15) What is a bus topology?
16) Define a mesh network.
17) What is a hybrid network?
18) Explain the term cloud storage.
19) What is data redundancy?
20) What is Wi-Fi?
21) What is Bluetooth?
22) What is a public IP address?
23) What is a private IP address?
24) Explain the function of an Ethernet cable.
25) What is IP address conflict?
26) What does the term "packet" refer to in networking?
27) What is a broadcast transmission in a network?
28) What is a data collision in networking?
29) Define bit streaming.

30) What is the difference between on-demand and real-time bit streaming?

31) What is the function of a buffer in streaming?

32) What is the primary difference between the internet and the World Wide Web?

33) What is a URL?

34) Define the term domain name service (DNS).

35) What is IPv4?

36) What is IPv6?

37) What is a MAC address?

38) What is a wireless access point (WAP)?

39) Define twisted pair cable.

40) What is coaxial cable used for?

41) Define fibre optic cable.

42) What does WNIC stand for?

43) What is attenuation in wireless communication?

44) What is the advantage of using fibre optic cables?

45) What does CSMA/CD stand for?

46) What is the role of a gateway in networking?

47) Define a NIC.t

48) What does a repeater do in networking?

49) What is signal attenuation?

50) What is the main function of a switch in network communication?

Section B

1) Define the term protocol.
2) What is HTTP, and how is it used?
3) Describe the four layers of the TCP/IP model.
4) Explain the function of the application layer.
5) What is the purpose of the transport layer?
6) How does the internet (network) layer differ from the link layer?
7) Explain SMTP and its use in email transmission.
8) What is POP3/IMAP?
9) How does a router assist in packet switching?
10) Define packet switching.
11) What is the role of a checksum in packet transmission?
12) Explain the function of a tracker in BitTorrent.
13) Define peer-to-peer networking.
14) How does circuit switching operate in a public telephone network?
15) What is the difference between IPv4 and IPv6?
16) Describe the use of BitTorrent in file sharing.
17) What are the pros of using packet switching?
18) How is a frame different from a packet in networking?
19) Define Ethernet.
20) Explain the purpose of file transfer protocol (FTP).
21) What is the difference between binary files and text files?
22) Define leech in a peer-to-peer file sharing context.
23) What is parity checking, and how is it used in communication protocols?
24) What is the multi-purpose internet mail extension (MIME) protocol?
25) Describe how an HTTP request works when fetching a web page.
26) How does WiFi handle collision avoidance using the CSMA/CA protocol?
27) Define RIP (Routing Information Protocol).
28) What is the main difference between POP3 and IMAP protocols?
29) How does DNS help resolve domain names to IP addresses?
30) What is a lurker in a peer-to-peer network?
31) What is the function of the internet message access protocol (IMAP)?
32) How does a peer in BitTorrent differ from a seed?

33) Describe how VoIP can use packet switching for a video call.
34) What is the role of a routing table in a router?
35) What does the Transport Layer ensure during data transmission?
36) How do packets get reassembled at the destination after packet switching?
37) Define positive acknowledgement with retransmission (PAR).
38) What is WiMax, and how is it used?
39) Define hop number in relation to packet routing.
40) Explain MAC addressing in the data-link layer.
41) What is the difference between TCP and UDP in the transport layer?
42) Explain how TCP handles lost packets during transmission.
43) Define anonymity in FTP.
44) What does push protocol mean when sending emails?
45) Describe the process of error checking using a checksum.
46) What is the purpose of SCTP in the transport layer?
47) Explain the term host-to-host transmission.
48) How does Bluetooth differ from WiFi in terms of protocols?
49) What is a segment in the transport layer?
50) Explain fragmentation in packet transmission.