1. The physical layer concerns with:

- **A.** bit-by-bit delivery
- **B.** process to process delivery
- **C.** application to application delivery
- **D.** none of the mentioned

Answer: Option A

2. Which transmission media has the highest transmission speed in a network?

- **A.** coaxial cable
- **B.** twisted pair cable
- **C.** optical fiber
- **D.** electrical cable

Answer: Option C

3. Bits can be send over guided and unguided media as analog signal by:

- **A.** digital modulation
- **B.** amplitude modulation
- **C.** frequency modulation
- **D.** phase modulation

Answer: Option A

4. The portion of physical layer that interfaces with the media access control sublayer is called:

- **A.** physical signalling sublayer
- **B.** physical data sublayer
- **C.** physical address sublayer
- **D.** none of the mentioned

Answer: Option A

5.physical layer provides:

- **A.** mechanical specifications of electrical connectors and cables
- **B.** electrical specification of transmission line signal level
- **C.** specification for IR over optical fiber
- **D.** all of the mentioned

Answer: Option D

6. In asynchronous serial communication the physical layer provides:

- **A.** start and stop signalling
- **B.** flow control
- **C.** both (a) and (b)
- **D.** none of the mentioned

Answer: Option C

7. The physical layer is responsible for:

- **A.** line coding
- **B.** channel coding
- **C.** modulation
- **D.** all of the mentioned

Answer: Option D

8. The physical layer translates logical communication requests from the _____ into hardware specific operations.

- **A.** data link layer
- **B.** network layer
- **C.** trasnport layer
- **D.** application layer

Answer: Option A

9. A single channel is shared by multiple signals by:

- **A.** analog modulation
- **B.** digital modulation
- **C.** multiplexing
- **D.** none of the mentioned

Answer: Option C

10. Wireless transmission can be done via:

- **A.** radio waves
- **B.** microwaves
- **C.** infrared
- **D.** all of the mentioned

Answer: Option D

1. When collection of various computers seems a single coherent system to its client, then it is called:

- **A.** computer network
- **B.** distributed system
- **C.** both (a) and (b)
- **D.** none of the mentioned

Answer: Option B

2. Two devices are in network if:

- **A.** a process in one device is able to exchange information with a process in another device
- **B.** a process is running on both devices
- **C.** PIDs of the processes running of different devices are same
- **D.** none of the mentioned

Answer: Option A

3. Which one of the following computer networks is built on the top of another network?

- **A.** prior network
- **B.** chief network
- **C.** prime network
- **D.** overlay network

Answer: Option D

4. In computer network nodes are:

- **A.** the computer that originates the data
- **B.** the computer that routes the data
- **C.** the computer that terminates the data
- **D.** all of the mentioned

Answer: Option D

5. Communication channel is shared by all the machines on the network in:

- **A.** broadcast network
- **B.** unicast network
- **C.** multicast network
- **D.** none of the mentioned

Answer: Option A

6. Bluetooth is an example of:

- **A.** personal area network
- **B.** local area network
- **C.** virtual private network
- **D.** none of the mentioned

Answer: Option A

7. A _____ is a device that forwards packets between networks by processing the routing information included in the packet.

- **A.** bridge
- **B.** firewall
- **C.** router
- **D.** all of the mentioned

Answer: Option C

8. A list of protocols used by a system, one protocol per layer, is called:

- **A.** protocol architecture
- **B.** protocol stack
- **C.** protocol suit
- **D.** none of the mentioned

Answer: Option B

9. Network congestion occurs:

- **A.** in case of traffic overloading
- **B.** when a system terminates
- **C.** when connection between two nodes terminates
- **D.** none of the mentioned

Answer: Option A

10. Which one of the following extends a private network across public networks?

- **A.** local area network
- **B.** virtual private network
- **C.** enterprise private network
- **D.** storage area network

Answer: Option B

11. The IETF standards documents are called:

- **A.** RFC
- **B.** RCF
- **C.** ID
- **D.** None of the mentioned

Answer: Option A

The Internet Engineering Task Force (IETF) is **the body that defines standard operating internet protocols such as TCP/IP.**
A Request for Comments (RFC) is a publication in a series from the principal technical development and standards-setting bodies for the Internet, most prominently the **Internet Engineering Task Force** (IETF).

12. In the layer hierarchy as the data packet moves from the upper to the lower layers, headers are:

- **A.** Added
- **B.** Removed
- **C.** Rearranged
- **D.** Modified

Answer: Option A
Explanation:
Every layer adds its own header to the packet from previous layer.

14. Communication between a computer and a keyboard involves _____ transmission.

- **A.** Automatic
- **B.** Half-duplex
- **C.** Full-duplex
- **D.** Simplex

- Answer: Option D
- Explanation:
- Data flows in single direction.

16. The _____ is the physical path over which a message travels:

- **A.** Ppath
- **B.** Medium
- **C.** Protocol
- **D.** Route

- Answer: Option B
- Explanation:
- Message travel from sender to receiver via a medium using a protocol.

17. Which organization has authority over interstate and international commerce in the communications field?

- **A.** ITU-T
- **B.** IEEE
- **C.** FCC
- **D.** ISOC

  Answer: Option C
  The FCC is an independent government organization that runs from the proceeds of regulatory fines in its regulation of radio, TV, wire and satellite communications. The FCC was formed from the Federal Radio Commission in 1934,

18. Which of this is not a network edge device?
    - **A.** PC
    - **B.** Smartphones
    - **C.** Servers
    - **D.** Switch
- Answer: Option D
- Explanation:
- Network edge devices refer to host systems, which can host applications like web browser.

19. A set of rules that governs data communication:
    - **A.** Protocols
    - **B.** Standards
    - **C.** RFCs
    - **D.** None of the mentioned

    Answer: Option A

Hub	Switch
A hub works at the physical layer of the OSI model.	A switch works at the data link layer of the OSI model.
A hub contains a single domain of collision.	In switch, several ports include separate collision domains.
It performs frame flooding, which can be broadcast, unicast, or multicast.	It mainly performs broadcast, and also performs unicast and multicast when required.
In the hub, the transmission mode is Half-duplex	In switch, the transmission mode is full-duplex.
It uses electrical signal orbits.	It uses frame & packet.
It does not support the Spanning-Tree protocol.	It supports Multiple Spanning-Tree.
In the hub, mostly collisions occur in setup.	In full-duplex switch does not occur collisions.
It is a passive device.	It is an active device.
A hub is not capable of storing MAC addresses.	It uses accessible content memory, which can be accessed by application-specific integrated chips (ASIC).
It is not an intelligent device.	A switch is an intelligent device.

The speed of the hub network is up to 10 Mb per second.	The speed of switch is 10/100 Mbps, 1 Gbps, and 10 Gbps.