IT 2nd material

# Network

## Lec2 : Ch 4

# Questions on Lecture 2

## Chapter 3

**Considered the heart of networks**

a) Switch

b) File Server

c) Stations

d) Repeater

**Switch provides the physical connection between the network and the computer workstation**

a) True

b) False

**The main factor to determine the speed and performance of a network** a) Router

b) Switch

c) Network Interface Card

d) Repeater

**Token Ring is more popular than Ethernet**

a) True

b) False

**Hub is more Intelligence than Switch**

a) True

b) False

**Amplifies the strength of the signal it receives and send it again** a) Hub

b) Switch

c) Repeater

d) Router

**Is a device to segment a large network into two smaller network or more** a) Bridge

b) Switch

c) Repeater

d) Router

**Considered a super-intelligent bridge**

a) Bridge

b) Switch

c) Repeater

d) Router

**Is a device that operates at the network layer of the OSI mode**

a) Bridge

b) Switch

c) Repeater

d) Router

**Is a device that operates at the Data link layer of the OSI mode**

a) Hub

b) Switch

c) Repeater

d) Router

**Is a device that operates at the physical layer of the OSI mode**

a) Hub

b) Switch

c) Bridge

d) Router

**The device that responsive for Network Address Translation**

a) Hub

b) Switch

c) Bridge

d) Router

**Is a physical layout, of nodes on a network and it describes a network to a wide range** a) Protocol

b) Topology

c) Network Computer

d) None of above

**The basic topologies possible**

a) mesh

b) star

c) tree

d) bus

e) ring

f) all of above

**What is the topology that has less security**

a) bus

b) mesh

c) star

d) tree

**What is the topology that has expensive cost**

a) bus

b) mesh

c) star

d) tree

**What is the topology that if the hub or switch fails the nodes join are disabled**

a) bus

b) mesh

c) star

d) tree

**What is the topology that if the main line damaged the entire segment fails** a) bus

b) mesh

c) star

d) tree

**What do you think the topology that needs a lot of cables**

a) bus

b) mesh

c) star

d) tree

**In FCIS building what do you think is suitable for it**

a) LAN

b) PAN

c) MAN

d) WAN

**The LAN topology is wired standard**

a) IEEE 803.2

b) IEEE 802.3

c) IEEE 801.2

d) IEEE 803.1

**In a El Mansoura Univesity what do you think is suitable for it** a) LAN

b) PAN

c) MAN

d) WAN

**Is the variation between the highest and lowest frequencies** a) Throughput

b) Bandwidth

c) all of above

d) none of above

**Is the rate of incoming data and possibly passing through a particular point in a network** a) Throughput

b) Bandwidth

c) all of above

d) none of above

**Throughput is higher than bandwidth**

a) True

b) False

## Chapter 4

**1. OSI Model stands for**

a) Open Source Interface
b) Operating System Interconnect
c) Open Systems Interconnection
d) Online Systems Integration

**2. OSI Model come first then TCP/IP Model**

a) true

b) false

**3. OSI Model Compose from 4 layers**

a) true

b) false

**4. The OSI model has been planned to ensure different types of devices must all be compatible device are built by various manufacturer**

a) true

b) false

**5. At the Network Layer, data is transmitted in units called** a) Data

b) Packets

c) Frames

d) Bits

**6. At the Physical Layer, data is transmitted in units called** a) Data

b) Packets

c) Frames

d) Bits

**7. At the Transport Layer, data is transmitted in units called** a) Data

b) Packets

c) Frames

d) Bits

**8. At the Data Link Layer, data is transmitted in units called** a) Data

b) Packets

c) Frames

d) Bits

**9. Which of the following protocols operates at the Data Link Layer**

a) IP

b) TCP

c) Ethernet

d) HTTP

**10. Which of the following protocols operates at the Application Layer**

a) IP

b) DNS

c) HTTP

d) b & c

**11. Which of the following protocols operates at the Transport Layer**

a) IP

b) TCP

c) Ethernet

d) HTTP

**12. What is a common device used at the Data Link Layer?**

a) Router

b) Switch

c) Firewall

d) IDS

**13. What is a common device used at the Network Layer?**

a) Router

b) Switch

c) Firewall

d) IDS

**14. Which of these addresses is used by the Data Link Layer to uniquely identify devices?** a) IP address

b) MAC address

c) Domain name

d) Port number

**15. What is the primary purpose of the Data Link Layer in the OSI model**

a) Routing data packets

b) Managing physical addresses and error detection

c) Encrypting data for security

d) Managing network applications

**16. What is the primary purpose of the Presentation Layer in the OSI model** a) Routing data packets

b) Managing physical addresses and error detection

c) Encrypting data for security

d) Managing network applications

**17. What is the layer that user can interact with its Interfaces**

a) Application layer

b) Presentation layer

c) Session layer

d) Transport layer

**18. What is the primary purpose of the Network Layer in the OSI model**

a) Routing data packets

b) Managing physical addresses and error detection

c) Encrypting data for security

d) Managing network applications

**19. What is a common device used at the Physical Layer?**

a) Router

b) Switch

c) Hub

d) IDS

**20. Is concerned with the transferred raw bits over a communication channel**

a) Data Link layer

b) Transport layer

c) Physical layer

d) Network layer

**21. It provides services such as framing, error detection and correction, and flow control to ensure the accurate and efficient transmission of data** a) Data Link layer

b) Transport layer

c) Physical layer

d) Network layer

**22. What is the maximum payload size of the original Ethernet frame?**

a) 512 bytes

b) 1024 bytes

c) 1582 bytes

d) 2048 bytes

**23. Which field in the original Ethernet frame contains the MAC address of the receiving device?** a) source address

b) destination address

c) preamble

d) type

**24. Which OSI layer adds a trailer to the data**

a) Data Link layer

b) Transport layer

c) Physical layer

d) Network layer

**25. What is the purpose of the Frame Check Sequence (FCS) in the original Ethernet frame?** a) to provide the destination address

b) to calculate the payload size

c) to delete errors in the frame data

d) to identify the protocol type

**26. What is the minimum frame size for the original Ethernet frame to avoid collision detection issues?** a) 46 bytes

b) 64 bytes

c) 128 bytes

d) 512 bytes

**27. How many bytes in MAC Address**

a) 48

b) 6

c) 32

d) 4

**28. How many bits in IP Address**

a) 48

b) 6

c) 32

d) 4

**29. Packet at layer 4 is called segment**

a) true

b) false

**30. The start of Ethernet Frame and it is 8 bytes**

a) CRC

b) Type

c) Preamble

d) Data

**31. Determine the optimal path for data packets to reach their destination by utilizing routing algorithms and maintaining routing tables.**

a) Data Link layer

b) Transport layer

c) Physical layer

d) Network layer

**32. It handles issues such as packet loss, congestion control, and quality of service (QoS) to ensure reliable and efficient data transmission** a) Data Link layer

b) Transport layer

c) Physical layer

d) Network layer

**33. The components of Frame in Data link layer is**

| | | |
|---|---|---|
| **Frame Header** | **Frame Data** | **Frame Footer** |

a) true

b) false

**34. is responsible for the reliable delivery and end-toend communication of data between hosts on a network**

a) Data Link layer

b) Transport layer

c) Physical layer

d) Network layer

**35. Which layer that TCP and UDP Protocols operates in**

a) Data Link layer

b) Transport layer

c) Physical layer

d) Network layer

**36. TCP is a reliable connection and connectionless protocol**

a) true

b) false

**37. Which protocol can be good at live streaming**

a) TCP

b) UDP

c) IP

d) a & b

**38. Which protocol can be good when we want to send a professional email**

a) TCP

b) UDP

c) IP

d) a & b

**39. The Network layer provides mechanisms for Authentication, Authorization and Accounting (AAA)**

a) true

b) false

**40. Responsible for establishing, managing, and terminating sessions or connections between applications running on different network devices**

a) Application layer

b) Transport layer

c) Session layer

d) Presentation layer

**41. Which layer that enables data encryption and protecting the confidentiality and ,decryption integrity of data transmitted between applications** a) Application layer

b) Transport layer

c) Session layer

d) Presentation layer

**42. Which layer that focuses on the formatting, encryption, and compression of data to ensure its compatibility and secure transmission between different systems**

a) Application layer

b) Transport layer

c) Session layer

d) Presentation layer

**43. The Client operates with Application layer**

a) true

b) false

**44. Which layer that responsible for data compression techniques, reducing the size of data for efficient transmission over the network, and decompressing it at the receiving end for proper interpretation**

a) Application layer

b) Transport layer

c) Session layer

d) Presentation layer

**45. From the functions of Presentation layer is Translation, Compression and Encryption**

a) true

b) false

**46. UDP stands for User Database Protocol**

a) true

b) false

**47. TCP stands for Transmission Control Protocol.**

a) true

b) false

**48. Which layers that responsible for end-to-end communications between the sender and the destination** a) 4-1

b) 7-4

c) 5-2

d) none of above

**49. What is the main function of the Application Layer in the OSI model?**

a) Routing data packets
b) Providing network services to end-users
c) Managing physical network connections
d) Ensuring error-free transmission of data

**50. Which of the following is a function of the Application Layer?**

a) Establishing physical connections
b) Providing application-specific services like file transfers
c) Routing and forwarding data packets
d) Ensuring data integrity during transmission

**لا تنسوا الدعاء لْخواتنا في فلسطين ولبنان و السودان وكل المستضعفين من المسلمين**