**BITS PILANI, DUBAI CAMPUS**

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**COURSE:** CSF303 (Computer Network)

**COMPONENT:** Tutorial Sheet 1 **DATE:** 8th February 2024

1 The \_\_\_\_\_\_\_ is the physical path over which a message travels.

A) Protocol

B) Medium

C) Signal

D) All the above

2 The information to be communicated in a data communications system is the \_\_\_\_\_\_\_.

A) Medium

B) Protocol

C) **Message**

D) Transmission

3 Frequency of failure and network recovery time after a failure are measures of the \_\_\_\_\_\_\_ of a network.

A) Performance

B) Reliability

C) Security

D) Feasibility

4 An unauthorized user is a network \_\_\_\_\_\_\_ issue.

A) Performance

B) Reliability

C) Security

D) All the above

5 Which topology requires a central controller or hub?

A) Mesh

B) **Star**

C) Bus

D) Ring

6 Which topology requires a multipoint connection?

A) Mesh

B) Star

C) Bus

D) Ring

7 Communication between a computer and a keyboard involves \_\_\_\_\_\_\_\_\_\_\_\_\_\_ transmission.

A) simplex

B) half-duplex

C) full-duplex

D) automatic

8 A television broadcast is an example of \_\_\_\_\_\_\_ transmission.

A) simplex

B) half-duplex

C) full-duplex

D) automatic

9 A \_\_\_\_\_\_\_ connection provides a dedicated link between two devices.

A) point-to-point

B) multipoint

C) primary

D) secondary

10 In a \_\_\_\_\_\_\_ connection, more than two devices can share a single link.

A) point-to-point

B) multipoint

C) primary

D) secondary

11 In \_\_\_\_\_\_\_ transmission, the channel capacity is shared by both communicating devices at all times.

A) simplex

B) half-duplex

C) full-duplex

D) half-simplex

12 \_\_\_\_\_\_\_ is the protocol suite for the current Internet.

A) TCP/IP

B) NCP

C) UNIX

D) ACM

13 Data flow between two devices can occur in a \_\_\_\_\_\_\_ way.

A) simplex

B) half-duplex

C) full-duplex

D) all of the above

14 In a \_\_\_\_\_\_ connection, two and only two devices are connected by a dedicated link.

A) multipoint

B) point-to-point

C) (a) and (b)

D) none of the above

15 In a \_\_\_\_\_\_\_\_ connection, three or more devices share a link.

A) multipoint

B) point-to-point

C) (a) and (b)

D) none of the above

16 \_\_\_\_\_\_ refers to the physical or logical arrangement of a network.

A) Data flow

B) Mode of operation

C) Topology

D) None of the above

17 Devices may be arranged in a \_\_\_\_\_ topology.

A) mesh

B) ring

C) bus

D) all of the above

18 A \_\_\_\_\_\_\_ is a data communication system within a building, plant, or campus, or between nearby buildings.

A) MAN

B) LAN

C) WAN

D) none of the above

19 A \_\_\_\_\_\_ is a data communication system spanning states, countries, or the whole world.

A) MAN

B) LAN

C) WAN

D) none of the above

20 \_\_\_\_\_\_\_\_ is a collection of many separate networks.

A) A WAN

B) An internet

C) a LAN

D) None of the above

21 There are \_\_\_\_\_\_\_\_\_\_\_\_\_\_ Internet service providers.

A) local

B) regional

C) national and international

D) all of the above

22 A \_\_\_\_\_\_\_\_ is a set of rules that governs data communication.

A) forum

B) protocol

C) standard

D) none of the above

23.The Internet model consists of \_\_\_\_\_\_\_ layers.

A) Three

B) Five

C) Seven

D) Eight

24 The process-to-process delivery of the entire message is the responsibility of the \_\_\_\_\_\_\_ layer.

A) Network

B) Transport

C) Application

D) Physical

25. The \_\_\_\_\_\_\_ layer is the layer closest to the transmission medium.

A) Physical

B) Data link

C) Network

D) Transport

26. Mail services are available to network users through the \_\_\_\_\_\_\_ layer.

A) Data link

B) Physical

C) Transport

D) Application

27. As the data packet moves from the upper to the lower layers, headers are \_\_\_\_\_\_\_.

A) Added

B) Removed

C) Rearranged

D) Modified

28. The \_\_\_\_\_\_\_ layer lies between the network layer and the application layer.

A) Physical

B) Data link

C) Transport

D) None of the above

7 Layer 2 lies between the physical layer and the \_\_\_\_\_\_\_ layer.

A) Network

B) Data link

C) Transport

D) None of the above

8 When data are transmitted from device A to device B, the header from A's layer 4 is read by B's \_\_\_\_\_\_\_ layer.

A) Physical

B) Transport

C) Application

D) None of the above

9 The \_\_\_\_\_\_\_ layer changes bits into electromagnetic signals.

A) Physical

B) Data link

C) Transport

D) None of the above

10 Which of the following is an application layer service?

A) Remote log-in

B) File transfer and access

C) Mail service

D) All the above

13 The physical layer is concerned with the movement of \_\_\_\_\_\_\_ over the physical medium.

A) programs

B) dialogs

C) protocols

D) bits

20 To deliver a message to the correct application program running on a host, the \_\_\_\_\_\_\_ address must be consulted.

A) port

B) IP

C) physical

D) none of the above

21 IPv6 has \_\_\_\_\_\_\_ -bit addresses.

A) 32

B) 64

C) 128

D) variable

22 ICMPv6 includes \_\_\_\_\_\_\_.

A) IGMP

B) ARP

C) RARP

D) a and b

23 The \_\_\_\_\_\_ layer is responsible for moving frames from one hop (node) to the next.

A) physical

B) data link

C) transport

D) none of the above

24 The \_\_\_\_\_\_ layer adds a header to the packet coming from the upper layer that includes the logical addresses of the sender and receiver.

A) physical

B) data link

C) network

D) none of the above

25 The\_\_\_\_\_\_\_\_\_ layer is responsible for the delivery of a message from one process to another.

A) physical

B) transport

C) network

D) none of the above

26 The Internetworking Protocol (IP) is a \_\_\_\_\_\_\_\_ protocol.

A) reliable

B) connection-oriented

C) both a and b

D) none of the above

27 \_\_\_\_\_\_\_ is a process-to-process protocol that adds only port addresses, checksum error control, and length information to the data from the upper layer.

A) TCP

B) UDP

C) IP

D) none of the above

28 \_\_\_\_\_\_\_\_\_\_ provides full transport layer services to applications.

A) TCP

B) UDP

C) ARP

D) none of the above

29 The \_\_\_\_\_\_\_\_ address, also known as the link address, is the address of a node as defined by its LAN or WAN.

A) port

B) physical

C) logical

D) none of the above

30 Ethernet uses a \_\_\_\_\_\_ physical address that is imprinted on the network interface card (NIC).

A) 32-bit

B) 64-bit

C) 6-byte

D) none of the above

31 A port address in TCP/IP is \_\_\_\_\_\_ bits long.

A) 32

B) 48

C) 16

D) none of the above

32 The \_\_\_\_ created a model called the Open Systems Interconnection, which allows diverse systems to communicate.

A) OSI

B) ISO

C) IEEE

D) none of the above

33 The seven-layer \_\_\_\_\_ model provides guidelines for the development of universally compatible networking protocols.

A) OSI

B) ISO

C) IEEE

D) none of the above

34 The physical, data link, and network layers are the \_\_\_\_\_\_ support layers.

A) user

B) network

C) both (a) and (b)

D) neither (a) nor (b)

35 The session, presentation, and application layers are the \_\_\_\_ support layers.

A) user

B) network

C) both (a) and (b)

D) neither (a) nor (b)

36 The \_\_\_\_\_\_\_ layer links the network support layers and the user support layers.

A) transport

B) network

C) data link

D) session

37 The \_\_\_\_\_\_\_ layer coordinates the functions required to transmit a bit stream over a physical medium.

A) transport

B) network

C) data link

D) physical

38 The \_\_\_\_\_\_\_ layer is responsible for delivering data units from one station to the next without errors.

A) transport

B) network

C) data link

D) physical

39 The \_\_\_\_\_\_ layer is responsible for the source-to-destination delivery of a packet across multiple network links.

A) transport

B) network

C) data link

D) physical

40 The \_\_\_\_\_\_\_\_ layer is responsible for the process-to-process delivery of the entire message.

A) transport

B) network

C) data link

D) physical

41 The \_\_\_\_\_\_ layer establishes, maintains, and synchronizes the interactions between communicating devices.

A) transport

B) network

C) session

D) physical

42 The \_\_\_\_\_\_\_ layer ensures interoperability between communicating devices through transformation of data into a mutually agreed upon format.

A) transport

B) network

C) data link

D) presentation

43 The \_\_\_\_\_\_\_\_\_ layer enables the users to access the network.

A) transport

B) application

C) data link

D) physical

44 TCP/IP is a \_\_\_\_\_\_ hierarchical protocol suite developed \_\_\_\_ the OSI model.

A) seven-layer; before

B) five-layer; before

C) six-layer; before

D) five-layer; after

45 The TCP/IP \_\_\_\_\_\_\_ layer is equivalent to the combined session, presentation, and application layers of the OSI model.

A) application

B) network

C) data link

D) physical

47 The \_\_\_\_ address uniquely defines a host on the Internet.

A) physical

B) IP

C) port

D) specific

48 The\_\_\_\_\_ address identifies a process on a host.

A) physical

B) IP

C) port

D) specific