

COMPUTER NETWORKS

UNIT 1

1. World Wide Web is a
 - a. Network of network
 - b. Distributed system
 - c. Inter connection of LAN
2. UNIX talk program is basis for
 - a. e-mail
 - b. Instant messaging
 - c. peer-peer communication
3. Napster is
 - a. Mail server
 - b. Chat server
 - c. Music server
4. Electronic gambling is legal for
 - a. India
 - b. China
 - c. England
5. Which of the following is example for peer-peer system?
 - a. File sharing system
 - b. Distributed system
 - c. Resource sharing system
6. P2P is
 - a. People - People
 - b. Person - Person
 - c. Peer - Peer
7. Wireless parking meter is used in
 - a. Singapore
 - b. USA
 - c. Australia
8. In PDA web pages are accessed by the following protocol
 - a. WAP
 - b. TCP
 - c. UDP
9. Which of the following OS is used in IBM developed watch?
 - a. Windows
 - b. Linux
 - c. Mac OS
10. DCS 1000 is used for
 - a. Used for e-mail applications
 - b. Used for chat applications
 - c. Used to identify the illegal activity of the people
11. Initial name for DCS 1000 is
 - a. ERMA
 - b. Carnivore
 - c. DCS
12. Inter processor distance for PAN is
 - a. 0.5 M
 - b. 1 M
 - c. 2 M
13. Inter processor distance for MAN is

- a. 10 KM b. 15 KM c. 5 KM
14. IEEE standard for Ethernet is
a. IEEE 802.16 b. IEEE 802.11 c. IEEE 802.3
15. IEEE standard for IBM token ring is
a. IEEE 802.5 b. IEEE 802.3 c. IEEE 802.11
16. IEEE standard for Wire less LAN is
a. IEEE 802.3 b. IEEE 802.16 c. IEEE 802.11
17. IEEE standard for MAN (developed for high speed internet) is
a. IEEE 802.3 b. IEEE 802.5 c. IEEE 802.16
18. The principle of subnet is called as
a. Store and forward b. Packet switch c. Both a and b
19. The first generation radio network used for cellular telephones was
a. analog and for voice only
b. digital and for voice only
c. digital and for voice and data
20. The second generation radio network used for cellular telephones was
a. analog and for voice only
b. digital and for voice only
c. digital and for voice and data
21. Example for telemetry is
a. Utility Meter b. intercom c. Both a and b
22. Example for connection oriented service is
a. TCP b. UDP c. FTP
23. Datagram service is also called as
a. Connection oriented service
b. Connection less service
c. None of the above
24. Electronic junk mail is uses
a. Connection less service
b. Connection oriented service
c. Depending upon the time
25. Remote login is example for

- a. Connection less service
 - b. Connection oriented service
 - c. Depending upon the time
26. The OSI model has ____ layers
- a. 8 b. 7 c. 9
27. The Data link layer in OSI model is concerned with
- a. Frames b. Bits c. Packets
28. Which of the following layer controls the operation of the subnet?
- a. Session layer b. Transport layer c. Network layer
29. Dialog control and token management is provided by
- a. Session layer b. Transport layer c. Network layer
30. The TCP/IP model has ____ layers
- a. 4 b. 5 c. 6
31. Which is not a part of application layer in TCP/IP model
- a. TELNET b. SATNET c. DNS
32. Which of the following layer is not present in TCP/IP model
- a. Presentation layer b. Internet layer c. Both a and b
33. The OSI model's network layer supports
- a. Connection less service b. Connection oriented service c. Both a and b
34. The OSI model's transport layer supports
- a. Connection less service b. Connection oriented service c. Both a and b
35. The TCP/IP model's network layer supports
- a. Connection less service b. Connection oriented service c. Both a and b
36. The TCP/IP model's transport layer supports
- a. Connection less service b. Connection oriented service c. Both a and b
37. ARPANET is related to
- a. e-business b. Army c. e-commerce
38. Which of the following network is example for connection oriented network
- a. X.25 b. ATM c. Both a and b
39. X.25 is replaced by

- a. ATM b. Frame relay c. NSFNET
40. The ATM reference model has ____ layers
a. 4 b. 3 c. 6
41. Which of the following layer is concerned with cells and cell transport in ATM reference model
a. Physical layer b. ATM layer c. ATM adaptation layer
42. In ATM reference model TC is sub layer for
a. Physical layer b. ATM layer c. ATM adaptation layer
43. ITU has ____ sectors
a. 3 b. 4 c. 6
44. Which of the following is best?
a. ALOHANET b. Ethernet c. Depending upon the usage
45. 10^{18} is
a. Peta b. Yotta c. Exa
46. 10^{15} is
a. Peta b. Yotta c. Exa
47. 10^{24} is
a. Peta b. Yotta c. Zetta
48. The IEEE standard for token bus is
a. IEEE 802.4 b. IEEE 802.5 c. IEEE 802.6
49. The IEEE standard for PAN(Bluetooth) is
a. IEEE 802.14 b. IEEE 802.15 c. IEEE 802.16
50. The IEEE standard for virtual LANs and security is
a. IEEE 802.11 b. IEEE 802.13 c. IEEE 802.10

ANSWERS:

- | | | | | | |
|-------|-------|-------|-------|-------|-------|
| 1. b | 2. b | 3. c | 4. c | 5. a | 6. c |
| 7. b | 8. a | 9. b | 10. c | 11. b | 12. b |
| 13. a | 14. c | 15. a | 16. c | 17. c | 18. c |
| 19. a | 20. b | 21. a | 22. a | 23. b | 24. a |
| 25. b | 26. b | 27. a | 28. c | 29. a | 30. a |
| 31. b | 32. a | 33. c | 34. b | 35. a | 36. c |
| 37. b | 38. c | 39. b | 40. b | 41. b | 42. a |
| 43. a | 44. b | 45. c | 46. a | 47. b | 48. a |
| 49. b | 50. c | | | | |

UNIT 2

DATA LINK LAYER

1. Chose any one of bit oriented protocol
 - a..TCP
 - b.HDLC
 - c.PPP
 - d.all of the above
2. Which of the following is data link layer's main function.
 - A.hardware control
 - B.framing
 - C.token management
 - d.. All of the above
- 3 . Which layer provide some services to the networklayer
 - a.trasport layer
 - b.physical layer
 - c.datalink layer
 - d.none of the above
4. Frames are generated by
 - a datalink layer in osi model,satnet in tcp,tc in atm
 - b. Datalink layer in osi model,tc in tcp,satnet in atm.
 - c. Datalink layer in osi model ,arpanet in tcp, pmd in atm
 - d.none of the above
5. In osi architecture, the bridge and switch are performed by
 - a. Physical layer
 - b. Data link layer
 - c. Session layer
 - d. Network layer
6. Which of the following allows device on one network to communicate with device on another network
 - a. Modem
 - b. Multiplexer
 - c. Gateway
 - d. T- switch
7. Error detection at the data link layer is achieved by
 - a.bit stuffing

- b. Cyclic redundancy code
 - c. Hamming code
 - d. All of the above
- 8. What is the main purpose of data link content monitor
 - a. To detect problems in protocols
 - b. To determine the type of transsion
 - c. To determine the type of switching
 - d. All of the above
- 9. The basic unit of blue tooth system is
 - a. Tcp
 - b. Piconet
 - c. Mac address
 - d. All of the above
- 10. An interconnected collection of piconets is called
 - a.internet
 - b.scatternet
 - c. Subnet
 - d. None of the above
- 11. An interconnection of routers is called
 - a. Internet
 - b.scatternet
 - c.subnet
 - d. None of the above
- 12. Mac address is _____
 - a. Physical address
 - b.logical address
 - c. A & b
 - d. None of the above
- 13. ex of Datalink layer protocol is _____
 - a.telnet
 - b.mac address
 - c.hdlc
 - d. Both b & c
- 14.which layer response to send acknowladgement
 - a.physical layer
 - b.data link layer
 - c.session layer
 - d.none of the above
- 15. Which of the following statement is correct
 - a. Buffering is a method to reduce cross talk
 - b.buffering is a storage of data within the transmitting medium untill the receiver is ready to receive.

c. Buffering is the process of temporarily storing the data to allow for small variation in device speeds.

16. which of the following address is loopback address of an IPV4

- a. 127.0.0.0.1
- b. 127.0.0.1
- c. 127.127.1.1 _____
- d. none of the above

17. which of the following communication device amplifies the signal

- a. hub _____
- b. router
- c. repeater
- d. both b & c

18. what is the main diff. between PPP and HDLC protocols

- a. HDLC is bit oriented protocol. but PPP is character(byte) oriented protocol
- b. HDLC is physical layer. PPP is datalink layer.
- c. both a & b.

19. what is frame?

Frame is a collection of data bits preceded by a preamble and followed by a postamble. Which form a complete block of bits which can be transmitted and understood at the receiver.

20. define framing error

framing error is an error which occurs when bit pattern does not match with expecting bit pattern of frame at receiver.

21. which layer adds CRC at the trailer of frame

- a. network layer
- b. data link layer
- c. framing layer
- d. none of the above

22. give at least any one reason why PPP (point to point) uses byte stuffing method

- all frames are an integrated number of bytes bit stuffing is not possible to send a frame consisting of 30-35 bytes.
- frames contain within the payload field.

23. what information contains in the control field of frame

* sequence number and acknowledgement

24. expand

- i) SDLC
- ii) LAP

- iii)LCP
- iv)NCP

24. what is the major disadvantage of character count framing method

* character count can be confused by transmission error. So,destination will get out of synchronization and will be unable to locate the start of next frame.

25.define flow control

the function performed by a receiving entity to limit the amount or rate of data that is sent by a transmitting entity

26.define error rate

the ratio of the number of data units in error to the total number of data units.

27.define datalink layer

in OSI ,the layer that provides service to transfer data between network layer entity ,usually in adjacent nodes. The data link layer detects and possibly corrects errors that may occur in physical layer.

Answer

1.b

2.b

3.b

4.a

5.b

6.c

7.b

8.a

9.b

10.b

11.b

12.b

13.b

14.b

15.c

16.b

17.d

18.a

21.b

24. SDLC -SYNCHRONOUS DATA LINK CONTROL

LAP- LINK CONTROL PROTOCOL

NCP -NETWORK CONTROL PROTOCOL

LAP -LINK ACCESS PROTOCOL
ADCCP- ADVANCED DATA COMMUNICATION CONTROL PROCEDURE.

Unit -

- 1) Which of the following is true for breaking up a network into two segments with a router
 - a) to create fewer broadcast domain
 - b) to create more broadcast domain
 - c) to create one large broadcast domain
- 2) Which of the following provides logical addressing?
 - a) network
 - b) datalink
 - c) none of the above
- 3) This device measure the distance to the remote network.
 - a) repeater
 - b) router
 - c) bridge
- 4) The PDUs at the network layer is called
 - a) packets
 - b) datagrams
 - c) segments
- 5) Which of the following is not an metric in distance vector routing?
 - a) physical length
 - b) no. of hops
 - c) queue length and time delay
- 6) Which of the following is not an distance vector routing protocol?
 - a) RIP
 - b) IGRP
 - c) OSPF
- 7) Which one of the following is IP link state protocol used in TCP/IP stach?
 - a) RIPV2
 - b) EIGRP
 - c) OSPF
- 8) Convert the ip address whose representation is C22F1582 to dotted decimal notation
 - a) 192.47.21.130
 - b) 194.47.21.130
 - c) 194.46.21.130
- 9) A network has a subnet mask of 255.255.240.0 .what the max. no of hosts it can handle?
 - a) 2^{12}
 - b) 2^{11}
 - c) 2^{13}

- 10) Suppose that instead of using 16 bits of network part of an class B address originally 20 bits had been used. How many class B networks can be formed?
- a) 14
 - b) 13
 - c) 16
- 11) Which of the following is an class C subnet mask?
- a) 255.255.0.0
 - b) 255.255.225.0
 - c) 255.255.255.0
- 12) What is the range of class C ip address?
- a) 192.0.0.0 - 223.255.255.255
 - b) 192.1.0.0 - 223.255.255.255
 - c) 192.1.0.0 - 223.254.255.255
- 13) Which class of ip address provide a max. of 254 hosts address per network id?
- a) class A
 - b) class B
 - c) class C
- 14) Which of the following is the use of NAT?(select all that apply)
- a) for data encryption
 - b) for security
 - c) to overcome shortage of ip address
- 15) What is the size of port no.?
- a) 8 bit
 - b) 16 bit
 - c) 32 bit
- 16) Which protocol is used to find the hardware address of a local device?
- a) ARP
 - b) BootP
 - c) ICMP
- 17) What is the size of the MAC address?
- a) 32 bit
 - b) 48 bit
 - c) 64 bit
- 18) In which layer MAC address is defined?
- a) datalink
 - b) network layer
 - c) datalink and network layer
- 19) Which of the following is not true about IPV6?
- a) it will not reduce the size of routing table
 - b) it's address size is 128 bit
 - c) support multicalsting
- 20) What is max size of an ip packet?
- a) 65518
 - b) 65517
 - c) 65515
- 21) Which class of ip address space provide large no. of network ids?

- a) class E
 - b) class B
 - c) class C
- 22) Which class of address space provide large no. of host ids?
- a) class D
 - b) class E
 - c) class A
- 23) Which protocol is used to find the logical address for given a physical address device?
- a) ARP
 - b) RARP
 - c) ICMP
- 24) What is the use of tunneling?
- 25) What are the two styles of internetworking?
- 26) What is the need for router in internetworking? 27)
- What is a jitter?
- 28) What is the routing algorithm used in ad hoc networks?
- a) BGP
 - b) AODV
 - c) IGMP
- 29) Which of the following is not an internetworking device?
- a) repeater
 - b) bridge
 - c) router
- 30) What is the diff. between VC and Datagram subset?
- 31) In OSI network architecture , the routing is performed by
- a) network layer
 - b) datalink layer
 - c) transport layer

SOLUTIONS:

Q.NO	ANS
1)	b
2)	a
3)	b
4)	a
5)	a
6)	c
7)	c
8)	b
9)	a

- 10) a
- 11) c
- 12) a
- 13) c
- 14) b,c
- 15) b
- 16) a
- 17) b
- 18) a
- 19) a
- 20) c
- 21) c
- 22) c
- 23) b
- 24) To transfer data to remote network via different architecture and it is accomplished through multiprotocol routing.
- 25)
 - i) connection oriented internetworking
 - ii) datagram internetworking
- 26) Interworking may involve networking of many networks each running on different architectures, modulation schemes, protocols, different addressing schemes. Hence router is needed to interconnect all these.
- 27) The variation in packet arrival time is called jitter.
- 28) b
- 29) a,b
- 30)
 - i) in VC each packets contains a VC no. where as in datagram each packet has a source and destination address.
 - ii) in VC packets flow in the same route, but in datagram each packet flows independent of another
- 31) a

UNIT - 4

- 1. Which OSI layer corresponds to TCP-UDP layers?
 a. Physical b. Transport c. network

ANS: c

- 2. Which of the transport layer protocol is connectionless?
 a. UDP b. TCP c. FTP

ANS: a

3. The unit of the PDU in transport layer that uses a UDP is called as
a. Datagram b. Packet c. Segment
ANS: a
4. Both transport layer protocols have
a. Source and Destination port address
b. Sequence number
Acknowledge number
ANS: a
c.
5. What type of address is used in transport layer?
a. Port address of application b. N/W address
c. Dialog address
ANS: a
6. Which of the following transport layer protocol is faster?
a. TCP b. UDP c. FTP
ANS: b
7. Segmentation of data stream happens of which layer of the OSI model
a. Network b. Transport c. Data link
ANS: b
8. Which of the following would describe a transport layer connection that will reliable delivery?
a. Routing b. Acknowledgements c. Switching
ANS: b
9. Which layer is represented by segments?
a. N/W b. Data link c. Transport
ANS: c
10. Which layer can create virtual circuit for reliable data transmission?
a. Session b. Transport c. Application
ANS: b
11. Which of the following is not true?
a. UDP is connectionless

- b. TCP is reliable
- c. UDP is slower than TCP

ANS: c

12. Which one of the following is not done by UDP?

- a. Flow control
- b. Error control
- c. Both a&b

ANS: c

13. What is maximum size of TCP's TPDU?

- a. 52 KB
- b. 64 KB
- c. 32 KB

ANS: b

14. The following range of port number cannot be assigned by user

- a. 0-1010
- b. 10-1023
- c. 0-1023

ANS: c

15. What is the length of sequence number in TCP?

- a. 8-bit
- b. 16-bit
- c. 32 bit

ANS: c

16. What is the target port number that the TCP segment can be use?

- a. 65,532
- b. 6535
- c. 65235

ANS: b

17. Protocol used in N/W layer

- a. IP
- b. UDP
- c. FTP

ANS: a

18. The first network is

- a. ATM network
- b. ARPANET
- c. None of these

ANS: a

19. What does the Data Link Layer use to find hosts on a local network?

- a. port numbers
- b. network address
- c. hardware address

ANS: c

20. What are the devices operated on data link layer?

- a. bridge
- b. switch
- c. both a & b.

ANS: c

21. Which of the OSI layer perform framing flow and error control?

a. Network b. Transport c. Data link

ANS: c

22. Which of the following is data link layer?

a. HDLC b. IP c. RIP

ANS: a

23. What is the use of piggy backing?

a. To improve band width. b. To reduce the size of packets.
c. To split the packets into frames.

ANS: a

24. What is the need of byte stuffing or character stuffing?

To identify the frames individually.