1. The physical layer concerns with
a) bit-by-bit delivery p) process to process delivery c) application to application delivery
d) none of the mentioned
2. Error detection at the Data Link level achieved by []
a) cyclic redundancy code b) Bit stuffing c) Hamming codes d) Equalization
3. Wireless transmission can be done via
a) radio waves b) microwaves c) infrared d) all of the mentioned
5. The method of communication in which transmission takes place in both directions, but only in one direction at a time is called []
a) Simplex b) Half duplex c) Full duplex d) None
6. Protocols are []
a) Agreements on how communication components
b) Physical communication channels used for transferring data
c) both a&b d)None
7. How many layers are there in TCP/IP model []
a) 4 Layers b) 7 Layers a) 6 Layers d) 8 Layers
8. How many bit are there in Ethernet address []
a) 64 bits b) 48 bits c) 32 bits d) 16bits
9. The Network layer concerns with
a) bits b) Frames c) Packets d) None
10. The 4 byte IP address consists of []
a) Network address b) host address c) both a&b d) none
11) The technique in which the data link layer automatically stuff bit '0' after five consecutive '1'sbitstuffing
12. In <u>csma</u> scheme transmission proceeds immediately if the carrier is idle.
13. In pure ALOHA, channel utilization, expressed as throughput S, in terms of the offered load G is given by

14. Ethernet uses	Manchester	encoding.		
16 <mark>. datalink layer</mark> network.	ensures that error fre	e data is transfer	rred between the adjace	nt nodes in the
17	layer of OSI mod	del also called en	d-to-end layer.	
18	provides a c	onnection – orien	nted reliable service for s	sending
messages.				
19. Bridge works i	n	_layer of OSI mo	odel	
20.In virtual circui	t network each packet	contains		
a) IPaddress b) <mark>a s</mark>	<mark>short VCI number</mark> c) bo	oth (a) and (b) d)	none of the mentioned	
22. Ainformation includ		rds packets betwe	een networks by process	ing the routing
a) bridge b) firewa	ll c) router d) all of the	ementioned		
23.The structure or	r format of data is calle	d		
a) Syntax b) Sema	ntics c) Struct d) None	of the mentioned	1	
24 Communication	n between a computer a	nd a keyboard in	volves	_ transmission
a) Automatic b) Ha	alf-duplex c) Full-dupl	ex d) Simplex		
25.The first Netwo	ork			
a) CNNET b) NSF	NET c) ASAPNET d)	ARPANET		
26. The is	s the physical path over	which a message	e travels	
a) Path <mark>b) Medium</mark>	c) Protocol d) Route			
27.A set of rules th	nat governs data commu	unication		
a) Protocols b) Sta	ndards c) RFCs d) Noi	ne of the mention	ed	
28. Which transmi	ssion media has the hig	thest transmission	speed in a network?	
a) coaxial cable b)	twisted pair cable c) o	<mark>otical fiber</mark> d) elec	ctrical cable	
29. The data link l transmission.	ayer takes the packets	from	and encapsulates them	into frames for
a) network layer b)) physical layer c) trans	port layer d) appl	lication layer	

- 30 .Which one of the following task is not done by data link layer?
- a) framing b) error control c) flow control d) channel coding
- 31. Automatic repeat request error management mechanism is provided by
- a) logical link control sublayer b) media access control sublayer
- c) network interface control sublayer d) none of the mentioned
- 32. When 2 or more bits in a data unit has been changed during the transmission, the error is called
- a) random error b) burst error c) inverted error d) none of the mentioned
- 33. CRC stands for
- a) Cyclic redundancy check b) code repeat check c) code redundancy check d) cyclic repeat check
- 34. Which one of the following is the multiple access protocol for channel access control?
- a) CSMA/CD b) CSMA/CA c) Both (a) and (b) d) None of the mentioned
- 35 .The technique of temporarily delaying outgoing outgoing acknowledgements so that they can be hooked onto the next outgoing data frame is called
- a) piggy backing b) cyclic redundancy check c) Fletcher's checksum
- d) none of the mentioned
- 36. The number of layers in ISO OSI reference model
- a) 5 b) 7 c) 6 d) None of the mentioned.
- 37. Application layer is implemented in
- a) End system b) NIC c) Ethernet d) None of the mentioned
- 38. The functionalities of presentation layer includes
- a) Data compression b) Data encryption c) Data translation d) All of the mentioned
- 39. Dialog control and synchronization of data exchange is provided by
- a) Application layer
- b) Session layer
- c) Transport layer
- d) Link layer

40. In OSI model, when data is sent from device A to device B, the 5th layer to recieve data at B is
a) Application layer b) Transport layer c) Link layer d) Session layer
41. In the OSI model, as a data packet moves from the lower to the upper layers, headers are
a) Added b) Removed c) Rearranged d) None of the mentioned
42. TCP/IP model does not have layer but OSI model have this layer.
a) session layer b) presentation layer c) application layer d) both (a) and (b)
43. Which layer links the network support layers and user support layers
a) session layer b) data link layer c) transport layer d) network layer
44. Which address is used in an internet employing the TCP/IP protocols?
a) physical address and logical address
b) port address
c) specific address
d) all of the mentioned
45. TCP/IP model was developed the OSI model.
a) prior to b) after c) simultaneous to d) none of the mentioned
46. Which layer is responsible for process to process delivery?
a) Network layer b) transport layer c) session layer d) data link layer
47. Which address identifies a process on a host?
a) Physical address b) logical address c) port address d) specific address
48. Which layer provides the services to user?
a) application layer b) session layer c) presentation layer d) none of the mentioned
49. Transmission data rate is decided by
a) network layer b) physical layer c) data link layer d) transport layer
50. Physical or logical arrangement of network is
a) Topology b) Routing c) Networking d) None of the mentioned

a) Star b) Mesh c) Ring d) Bus
52. This topology requires multipoint connection
a) Star b) Mesh c) Ring d) Bus
53. Networking system spanning states, countries, or the whole world is
a) LAN b) WAN c) MAN d) None of the mentioned
54. Data communication system within a building or campus is
a) LAN b) WAN c) MAN d) None of the mentioned
55. Which of this is not a guided media?
a) Fiber optical cable b) Coaxial cable c) Wireless LAN d) Copper wire
56. Coaxial cable consists of concentric copper conductors.
a) 1 b) 2 c) 3 d) 4
57. Most packet switches use this principle
a) Stop and wait b) Store and forward c) Both of the mentioned d) None of the mentioned
58. TCP/IP stands for
59. CSMA/CD stands for
60. The International Standards Organization (ISO) is the international organization for Standardization was established in the year? []
A) 1945 B) 1946 C) 1947 D) 1948
61. Which layer is fourth layer from physical layer in the OSI model? []
A) Session Layer B) Data link Layer C) Transport Layer D) Network Layer
62. Which Protocol is the connection oriented protocol in the TCP/IP protocol suite? []
A) UDP B) IP C) ARP D) TCP
63. Which of the following is the sub layer of Data link layer? []
A) Ethernet B) Token Ring C) Media Access Control D) Bus
64. Error Detection and Correction is done at which of the following layers? []
A) Physical Layer B) Data Link Layer C) Network Layer D) Application layer

51. In this topology there is a central controller or hub

65. The MAC layer emulates which type of communication channel in a multi-point network?[]
A) Full-duplex logical B) Simplex C) Half-duplex logical D) None
66 . CSMA/CA protocol is used in which type of networks? []
A) Token Ring B) Ethernet C) IEEE802.11 D) None
67 augments the CSMA algorithm to detect collision.
A) CSMA/CD
B) CSMA/CA
C) either (a) or (b)
D) both (a) and (b)
68. In, each station is forced to send only at the beginning of the time slot.
A) pure ALOHA
B) slotted ALOHA
C) both (a) and (b)
D) neither (a) nor (b)
69. In, collisions are avoided through the use of three strategies: the interframe space, the contention window, and acknowledgments.
A) CSMA/CD B) CSMA/CA C) either (a) or (b) D) both (a) and (b)
70. In cyclic redundancy checking, what is the CRC?
A) The quotient B) The dividend C) The divisor D) The remainder
71. There are Internet service providers.
A) Regional B) local C) national and international D) all of the above
72 refers to two characteristics: when data should be sent and how fast it can be sent.
A) Semantics B) Timing C) Syntax D) none of the above
73 is a collection of many separate networks.
A) A WAN B) An internet C) A LAN D) None of the above
74. In the original ARPANET, were directly connected together.
A) routers B) host computers C) networks D) IMPs

75. Frequency of of a network.	failure and network	k recovery time	e after a failu	re are mea	sures of the	·
A)Performance	B)Reliability	C)Security	D)Feasibili	ty		
76. Vulnerable tir77. Vulnerable tir	ne of Pure ALOHA ne of SLOTTED A	ALOHA	2T _{fr}	T _{fr.}		
78. Throughput o	f pure ALOHA <mark>s=</mark> §	$g^*e^{-2g} g=1/2$				
79. Throughput o	f Slotted ALOHA	s=g*e ^{-g} g=1				
80. In the logical ring.	Token passing	method	l, the stations	in a netwo	ork are orga	nized in a
81. ARPANET st	ands for	Advanced Re	esearch Proje	ct Agency	Network	
82. In(CSMA	scheme transn	nission proce	eds immed	iately if the	e carrier is
83. Network layer is implemented in				[]	
A) NIC	B) Ethernet	C) Rou	<mark>iter</mark>	D) End sy	stem	
84. How many bits are there in Port Address			[]		
A) 64 bits	B) 48 bits	C) 32 b	its	D) 16bit	S	