University of Mumbai
Examination June 2021
Examinations Commencing from 1ˢᵗ June 2021
Program: Electronics and Telecommunication Engineering
Curriculum Scheme: Rev2016
Examination: TE Semester VI

Course Code: ECC602   Course Name: Computer Communication Networks

Time: 2 hour   Max. Marks: 80

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Q1.	Choose the correct option for following questions. All the Questions are compulsory and carry equal marks
1.	The physical layer is concerned with _____
Option A:	bit-by-bit delivery
Option B:	process to process delivery
Option C:	application to application delivery
Option D:	port to port delivery
2.	Which transmission media provides the highest transmission speed in a network?
Option A:	coaxial cable
Option B:	twisted pair cable
Option C:	optical fiber
Option D:	electrical cable
3.	The data link layer takes the packets from _____ and encapsulates them into frames for transmission.
Option A:	network layer
Option B:	physical layer
Option C:	transport layer
Option D:	application layer
4.	Which of the following tasks is not done by data link layer?
Option A:	framing
Option B:	error control
Option C:	flow control
Option D:	channel coding
5.	Which sublayer of the data link layer performs data link functions that depend upon the type of medium?
Option A:	logical link control sublayer
Option B:	media access control sublayer
Option C:	network interface control sublayer
Option D:	error control sublayer
6.	Physical or logical arrangement of network is _____

Option A:	Topology
Option B:	Routing
Option C:	Networking
Option D:	Control
7.	Data communication system spanning states, countries, or the whole world is _____
Option A:	LAN
Option B:	WAN
Option C:	MAN
Option D:	PAN
8.	An interconnected collection of piconet is called _____
Option A:	scatternet
Option B:	Micronet
Option C:	Mininet
Option D:	multinet
9.	In a piconet, there can be up to _____ parked nodes in the network.
Option A:	64
Option B:	127
Option C:	255
Option D:	511
10.	WiMAX provides _____
Option A:	simplex communication
Option B:	half duplex communication
Option C:	full duplex communication
Option D:	no communication
11.	The packet of information at the application layer is called _____
Option A:	Packet
Option B:	Message
Option C:	Segment
Option D:	Frame
12.	Which of the following is not a characteristic of Virtual Circuit Network?
Option A:	There are setup and teardown phases in addition to the data transfer phase
Option B:	Resources can be allocated during setup phase or on demand
Option C:	All packets follow the same path established during the connection
Option D:	Virtual circuit network is implemented in application layer
13.	Which of these is not applicable for IP protocol?
Option A:	is connectionless
Option B:	offer reliable service
Option C:	offer unreliable service
Option D:	does not offer error reporting

14.	A 4 byte IP address consists of _____
Option A:	only network address
Option B:	only host address
Option C:	network address & host address
Option D:	network address & MAC address
15.	In virtual circuit network each packet contains _____
Option A:	full source and destination address
Option B:	a short VC number
Option C:	only source address
Option D:	only destination address
16.	Which of the following routing algorithms can be used for network layer design?
Option A:	shortest path algorithm
Option B:	distance vector routing
Option C:	link state routing
Option D:	all of the mentioned
17.	Which one of the following algorithm is not used for congestion control?
Option A:	traffic aware routing
Option B:	admission control
Option C:	load shedding
Option D:	routing information protocol
18.	Which of the following are transport layer protocols used in networking?
Option A:	TCP and FTP
Option B:	UDP and HTTP
Option C:	TCP and UDP
Option D:	HTTP and FTP
19.	User datagram protocol is called connectionless because _____
Option A:	all UDP packets are treated independently by transport layer
Option B:	it sends data as a stream of related packets
Option C:	it is received in the same order as sent order
Option D:	it sends data very quickly
20.	Common gateway interface is used to _____
Option A:	generate executable files from web content by web server
Option B:	generate web pages
Option C:	stream videos
Option D:	download media files

Q2	Solve any Two Questions out of Three 10 marks each
A	Draw and explain OSI reference model.
B	Explain services provided by data link layer to network layer with example.
C	What is Fragmentation in IPV4? Explain the fields related to fragmentation in head format.

Q3	Solve any Two Questions out of Three 10 marks each
A	Explain Connection establishment in TCP using three way handshaking.
B	Explain various Timers in TCP.
C	Explain Dijkstra's and Bellman Ford algorithm.