Time: 2 hours 30 mins   **Max. Marks: 80**

Q1. All questions compulsory 2 marks each (20 Marks)

1	Multimode step index fiber has _____
Option A	Large core diameter & large numerical aperture
Option B	Large core diameter and small numerical aperture
Option C	Small core diameter and large numerical aperture
Option D	Small core diameter & small numerical aperture
2	Data in the network layer is called _____
Option A	bits
Option B	frames
Option C	packets
Option D	bytes
3	Which one of the following is not a function of network layer?
Option A	routing
Option B	inter-networking
Option C	congestion control
Option D	error control
4	A 4 byte IP address consists of _____and ____
Option A	only network address
Option B	only host address
Option C	network address & host address
Option D	network address & MAC address

University of Mumbai
Program: Computer Engineering
Curriculum Scheme: Rev2019
Examination: ThirdYear Semester: V
Course Code: CSC503   Course Name :Computer Network

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5	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
6	_____layer is responsible for host to host delivery whereas _____layer is responsible for process to process delivery.
Option A	Physical, Data Link
Option B	Data Link, Network
Option C	Data Link, Transport
Option D	Network, Transport
7	In Hamming code technique, No of data bits are 4 then the length of the Code word will be..............
Option A	5
Option B	7
Option C	9
Option D	8
8	Which of the following are transport layer protocols used in networking?
Option A	TCP and FTP
Option B	UDP and HTTP

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Option C	TCP and UDP
Option D	HTTP and FTP
9	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 sends data as a stream of related packets
Option D	it sends data very quickly
10	In_____method, no station is superior to another station and none is assigned the control over another.
Option A	Random access
Option B	Controlled access
Option C	Channelization
Option D	None of the above

Time: 2 hours 30 mins **Max. Marks: 80**

Q2. (20 Marks)	Solve any Two Questions out of Three 10 marks each
A	a. List advantages fibre optics as a communication medium. b. What are the advantages of IPV6?
B	Explain with examples classification of IPV6 addresses
C	Explain Distance Vector Routing with an example.

Q3. (20 Marks)	Solve any Two Questions out of Three 10 marks each
A	i) Discuss design issues for various layers. ii) Explain OSI/ISO model with neat diagram and the functions of each layer?
B	i) Compare TCP/IP and OSI Model ii) Explain Repeater, Hub, Bridge, Switch.
C	What is IPV4 protocol? Explain IPV4 Header format with diagram.

Q4. (20 Marks)	Solve any Two Questions out of Three 10 marks each
A	i_ What is framing? Explain in short different framing methods. ii) Explain with diagram the relationship between protocol, interface and service.
B	Explain sliding window protocol using Go-Back-N Technique.
C	Explain with the help of suitable diagram TCP connection management and release.