University of Mumbai

Examinations Summer 2022

Program: **Electronics Engineering**

Curriculum Scheme: Rev2019

Examination: TE Semester VI

Course Code: ELC603 and Course Name: Computer Communication Networks

Time: 2 hour 30 minutes Max. Marks: 80

DATE: 24/5/2022 QP CODE: 93509

Q1.	**Choose the correct option for following questions. All the Questions are compulsory and carry equal marks**
1.	Network topology in which you can connect each node to the network along a single piece of network cable is called
Option A:	Star topology
Option B:	Bus topology
Option C:	Mesh topology
Option D:	Ring topology
2.	Which OSI layer is known as Medium Access control Layer (MAC)
Option A:	Physical Layer
Option B:	Application Layer
Option C:	Transport Layer
Option D:	Data Link Layer
3.	Which of the following best suits the User Datagram Protocol (UDP)
Option A:	Unreliable
Option B:	Congestion Control
Option C:	Flow Control
Option D:	Velocity Control
4.	What is the size of the IP address of IPv4 in bytes?
Option A:	32
Option B:	16
Option C:	4
Option D:	10

5.	In the network layer which addressing is done?
Option A:	Physical addressing
Option B:	Logical addressing
Option C:	Port addressing
Option D:	Specific addressing
6.	Which of the following is used for short range communication?
Option A:	Fiber optic cable
Option B:	Infrared wave
Option C:	microwave
Option D:	Coaxial cable
7.	The transition from IPv4 to IPv6 is not possible from the following strategies
Option A:	Dual Stack
Option B:	Subnetting
Option C:	Tunneling
Option D:	Header translation
8.	In _____, the chance of collision can be reduced if a station senses the medium before trying to use it
Option A:	MA
Option B:	CSMA
Option C:	CDMA
Option D:	FDMA
9.	Data field is not present in following frame
Option A:	I-frame
Option B:	U-frame
Option C:	S-frame
Option D:	A-Frame

10.	Simple Mail Transfer Protocol (SMTP) is_____
Option A:	Pull Protocol
Option B:	Push Protocol
Option C:	Forward Protocol
Option D:	Backward Protocol

Q2	**Solve any Two Questions out of Three** **10 marks each**
A	Describe different Addresses (MAC address, IP address, Port address, Specific address) used in networking with examples
B	Describe ADSL with respect to channel configuration, Modulation technique and Equipment setup
C	Explain Stop-And-Wait ARQ Protocol & list the advantages & disadvantages of Stop-And-Wait ARQ Protocol

Q3	**Solve any Two Questions out of Three** **10 marks each**
A	Draw and explain IPV4 header. Compare IPV4 with IPV6
B	Explain TCP/IP Protocol Suite. Distinguish between OSI model and TCP/IP model
C	Explain Sliding window flow control protocol with the help of suitable diagram

Q4	**Solve any Two Questions out of Three** **10 marks each**
A	What are causes & effects of Congestion in the Transport layer? Explain different congestion control mechanisms
B	Explain Time Slot Interchange Switch with the help of suitable diagram
C	Explain Domain Name System (DNS) in application layer with the help of suitable diagram