# 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

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| **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 |
| | |



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| | |
|---|---|
| 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 |



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