

Reg No.: \_\_\_\_\_

Name: \_\_\_\_\_

**APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY**  
SEVENTH SEMESTER B.TECH DEGREE EXAMINATION(R&S), MARCH 2020

**Course Code: EC407**

**Course Name: COMPUTER COMMUNICATION**

Max. Marks: 100

Duration: 3 Hours

**PART A**

*Answer any two full questions, each carries 15 marks.*

Marks

- |   |    |  |      |
|---|----|--|------|
| 1 | a) | With a suitable diagram explain the fundamentals of TCP/IP protocol Suite. | (8)  |
|   | b) | Explain about (a) Coaxial cable (b) Fibre optic cable.                     | (7)  |
| 2 | a) | Explain the error detection using CRC.                                     | (8)  |
|   | b) | Explain about the MAC sub layers defined by IEEE 802.11                    | (7)  |
| 3 | a) | Explain how collision is avoided in CSMA/CA.                               | (10) |
|   | b) | Explain about star and bus topologies.                                     | (5)  |

**PART B**

*Answer any two full questions, each carries 15 marks.*

- |   |    |   |      |
|---|----|---|------|
| 4 | a) | Explain the functionalities of network layer and IP packet format.      | (10) |
|   | b) | Explain the forwarding of packet in network layer.                      | (5)  |
| 5 | a) | Explain the formation of shortest path tree using Dijkstra's Algorithm. | (10) |
|   | b) | Explain about classful and classless addressing.                        | (5)  |
| 6 | a) | What is VLAN? Explain its configurations.                               | (7)  |
|   | b) | Explain how Link State Routing is implemented in OSPF protocol.         | (8)  |

**PART C**

*Answer any two full questions, each carries 20 marks.*

- |   |    |   |     |
|---|----|---|-----|
| 7 | a) | Explain about TCP segment format.                                   | (8) |
|   | b) | Explain how DMZ helps in network security.                          | (6) |
|   | c) | Explain about SNMP.   | (6) |
| 8 | a) | Discuss how IPSec secures network layer communication.              | (8) |
|   | b) | Explain the various intrusion detection systems.                    | (6) |
|   | c) | Explain about (a) PGP (b) SSL                                       | (6) |
| 9 | a) | Explain congestion control measures implemented in transport layer. | (8) |
|   | b) | Explain the architecture of WWW.                                    | (6) |
|   | c) | Explain about SMTP.   | (6) |