

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

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

**APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY**  
SEVENTH SEMESTER B.TECH DEGREE EXAMINATION(R&S), DECEMBER 2019

**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 OSI model.    | (10)  |
|   | b) Explain about byte stuffing with example.                         | (5)   |
| 2 | a) Explain the frame format in HDLC protocol.                        | (8)   |
|   | b) Explain about TCP/IP protocol suite.                              | (7)   |
| 3 | a) Explain about simplex, half duplex and full duplex communication. | (3)   |
|   | b) Explain how collision is handled in CSMA/CD.                      | (8)   |
|   | c) Compare circuit switching and packet switching.                   | (4)   |

**PART B**

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

- |   |  |     |
|---|--|-----|
| 4 | a) Explain about ICMP. How is error reporting possible in ICMP.  | (8) |
|   | b) Explain the forwarding of packet in network layer.  | (7) |
| 5 | a) Explain subnetting and super netting. How do the subnet mask and supernet mask differ from a default mask in classful addressing? | (8) |
|   | b) Explain Link State Routing using Dijkstras algorithm with an example.   | (7) |
| 6 | a) What is VLAN? Explain its configurations.   | (8) |
|   | b) Explain Routing Information Protocol with an example.   | (7) |

**PART C**

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

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|---|---|------|
| 7 | a) Explain about open loop and closed loop congestion control mechanisms. | (10) |
|   | b) Write note on (a) PGP (b) TLS  | (6)  |
|   | c) Explain about firewall and its types.                                  | (4)  |
| 8 | a) With necessary diagram explain the features of UDP.                    | (8)  |
|   | b) Explain the various intrusion detection systems.                       | (6)  |
|   | c) Explain the TCP segment format.  | (6)  |

- 9 a) Explain any four common attacks in networks. (8)
- b) Explain how Telnet establishes connection to a remote system. (6)
- c) Explain about IPSec and its modes. (6)

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