Reg No.:_____   Name:_____

APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY

Seventh Semester B.Tech Degree Regular and Supplementary Examination December 2021 (2015 Scheme)

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) Explain the functions of OSI model with a neat diagram.   (10)

   b) Differentiate synchronous transmission from asynchronous transmission.   (5)

2 a) Explain with a neat sketch (a) Coaxial cable (b) Fiber optic cable.   (6)

   b) Explain using flow diagram how the collision is avoided in CSMA/CA.   (9)

3 a) Explain about TCP/IP protocol suite.   (8)

   b) Discuss IEEE802.3 MAC frame format in detail .What are the restrictions imposed on minimum and maximum lengths of 802.3.   (7)

PART B
Answer any two full questions, each carries 15 marks.

4 a) Explain about ICMP protocol. Explain how the error reporting is possible in ICMP.   (8)

   b) Explain the limitations of distance vector protocol. Explain the solutions to overcome these limitations.   (7)

5 a) Explain the fuctionalities of the network layer. Also explain the IPv4 packet format with a neat sketch.   (10)

   b) List the different networking devices in detail.   (5)

6 a) Explain routing table. State the difference between static routing table and dynamic routing table.   (7)

   b) Explain the Border Gateway Protocol (BGP) protcol with an example.   (8)

PART C
Answer any two full questions, each carries 20 marks.

7 a) Explain PGP and TLS in detail.   (6)

   b) Explain how Telnet establishes connection to a remote system.   (6)

   c) With a suitable diagram explain the features of UDP.   (8)

8 a) Explain the handshake protocol used in SSL. (7)

   b) Explain about Firewall.   Differentiate Packet-Filter Firewall from Proxy (8)
       Firewall.

   c) Explain the services provided by IPsec in detail. (5)

9 a) Explain AH protocol in detail using suitable diagram. (6)

   b) Explain the three-way handshaking mechanism in TCP protocol. (9)

   c) State the limitations of Firewall. (5)

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