Reg No.:_____   Name:_____

APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY
B.Tech Degree S7 (S, FE) / S7 (PT) (S, FE) Examination December 2023 (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)	Compare and contrast OSI and TCP/IP model.	6
	b)	Explain any three topologies used to connect the devices in a computer network.	9
2	a)	Explain the functions of Data link layer.	8
	b)	With a neat diagram, explain how the collision is detected in CSMA/CD.	7
3	a)	Explain the layered architecture of OSI model.	8
	b)	Explain the six fields in HDLC Frame and different types of HDLC frames.	7

PART B

Answer any two full questions, each carries 15 marks.

4	a)	Compare IPV4 and IPV6 datagram used in network layer.	8
	b)	Explain about IGMP protocol.	7
5	a)	Explain link state routing algorithm with example.	8
	b)	Describe a dynamic routing protocol that uses hop count as a routing metric for finding the best path between the source and destination network.	7
6	a)	Explain different methods to overcome limitations of distance vector routing protocol.	8
	b)	Explain about classless inter domain routing (CIDR)	7

PART C

Answer any two full questions, each carries 20 marks.

7	a)	Explain the packet structure of UDP	7
	b)	Explain how we can improve the quality of service (QoS) when the computer is communicated through a network.	8
	c)	Explain how TELNET is used for remote logging.	5
8	a)	Explain different types of firewalls used for security	8

b) "Computer networks are vulnerable to various attacks" Comment and discuss about the various attacks in Computer networks.   7

c) Explain the features of TLS protocol   5

9 a) Discuss about the handshaking mechanism used by TCP protocol to establish reliable connection.   6

b) Explain the features of DNS   5

c) Explain the functions of IPsec protocols for network security   9

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