Reg No.:_____ Name:_____

APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY
FIRST SEMESTER MCA (Second Year Direct) DEGREE EXAMINATION, DECEMBER 2018
Course Code: RLMCA201
Course Name: COMPUTER NETWORKS

Max. Marks: 60 Duration: 3 Hours

PART A
Answer all questions, each carries 3 marks. Marks

1	Explain the importance of layering in data communication.	(3)
2	List out and explain the fields in a DNS record.	(3)
3	Discuss about three way handshaking in TCP.	(3)
4	Given the address 23.56.7.91 and the default class A mask, find the network address.	(3)
5	Write short notes on switches, routers and bridges.	(3)
6	Explain how parity is used to achieve error detection in data communication.	(3)
7	Explain briefly the key parts of SNMP.	(3)
8	List out and explain the various Bluetooth Layers.	(3)

PART B
Answer six questions, one full question from each module and carries 6 marks.

Module I
9 Discuss about Quality of Service and the various methods used to achieve it with suitable diagrams. (6)

OR

10 Write short notes on:
1. SSL (3)
2. PGP (3)

Module II
11 Write short notes on:

1. POP3 and its various modes. (3)
2. Persistent and Non Persistent HTTP. (3)

OR

12 Explain the two predominant architectural paradigms used in modern network (6)

applications in detail.

Module III

13   What is meant by reliability in data communication? How it is achieved in datagram networks. Compare the reliable data transfer protocol Go-Back-N and Selective repeat.   (6)

OR

14   Describe the various stages of AIMD algorithm used for congestion control in TCP.   (6)

Module IV

15   What is the function of DHCP. Explain the working of DHCP with associated messages exchanged..   (6)

OR

16   1.   List out the various IP packet fields and their functions.   (3)

2.   Write short notes on Network Address Translation (NAT).   (3)

Module V

17   1.   Explain the various fields in an Ethernet frame.   (3)
2.   List down and explain the various steps required for accomplishing self-learning capabilities in switches.   (3)

OR

18   What are some of the possible services that a link-layer protocol can offer to the network layer? Which of these link-layer services have corresponding services in IP? In TCP?   (6)

Module VI

19   Explain any six network attacks and their counter measures.   (6)

OR

20   1.   Explain various IEEE 802.11 frame types as part of CSMA/CA protocol.   (3)

2.   List out and explain the various IEEE 802.11 WLAN Components.   (3)

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