

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

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

**APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY**  
THIRD SEMESTER M.C.A. 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:

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|----|-----|-----|
| 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 applications in detail. | (6) |
|----|--|-----|

**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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