L1A002S

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

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

# APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY

FIRST SEMESTER MCA (LATERAL ENTRY) DEGREE EXAMINATION, JULY 2017

### **RLMCA201: COMPUTER NETWORKS**

Maximum Marks: 60

#### Duration: 3 Hours

### PART A

### Answer All Questions. Each question carries 3 marks

- 1. Highlight the importance of protocol layering with an example.
- 2. Explain the basic model of FTP. How FTP uses the services of TCP?
- 3. Differentiate connection oriented and connectionless transport with suitable example.
- 4. How routing happens through Border Gateway Protocol?
- 5. Explain the duties of data link Layer.
- 6. Compare any two random access protocols.
- 7. What are the various Wireless LAN requirements?
- 8. List out the goals of firewalls.

## PART B

## Answer any one question from each module. Each question carries 6 marks.

### **MODULE I**

9. What are the components of basic communication model? Describe with the help of a neat diagram.

### OR

10. Discuss about the history of Internet.

### **MODULE II**

11. Describe with an example how an HTTP conversation happens between a Web client and server.

### OR

12. Explain the file sharing mechanism in P2P networks with an example. What are its advantages and disadvantages?

## **MODULE III**

13. Explain different principles of Congestion Control.

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OR

14. Explain stop-and-wait and Go back-N protocol in detail.

#### **MODULE IV**

15. What are the performance criterias for selecting a routing algorithm? Illustrate distance vector routing algorithm used in networks.

#### OR

16. Differentiate virtual circuits and datagram.

### **MODULE V**

17. Explain in detail about IEEE 802.3 MAC frame format with its access protocol.

### OR

18. A series of 8 –bit message blocks to be transmitted across a data link using a CRC forerror detection. A generator polynomial of 1101 is to be used. Message is given as100100. Explain how CRC check is implemented.

#### **MODULE VI**

19. Write short note on

- a. Troubleshooting
- b. SNMP

#### OR

20. Explain Bluetooth with its architecture and layers.

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