

Reg No.: _____

Name: _____

APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY
THIRD SEMESTER MCA DEGREE EXAMINATION, DECEMBER 2017

Course Code:RLMCA 201

Course Name: COMPUTER NETWORKS

Max. Marks: 60

Duration: 3 Hours

PART A

Answer all questions, each carries 3 marks.

Marks

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| 1 | Explain the Basic Communication Model with neat diagram. | (3) |
| 2 | Differentiate between Persistent and non-persistent connection. | (3) |
| 3 | What are the transport layer services? Explain Multiplexing and Demultiplexing. | (3) |
| 4 | Compare IPv4 and IPv6. How IPv6 solve the problem of IPv4 exhaustion? | (3) |
| 5 | A series of 8-bit message blocks to be transmitted across a data link using CRC for error detection. A generator polynomial of x^3+x^2+1 is to be used. Message transmitted as 110010. Explain how CRC check is implemented? | (3) |
| 6 | Discuss about Switched and Bridged Ethernet. | (3) |
| 7 | Explain about the various layers of Bluetooth. | (3) |
| 8 | What you mean by VPN? Explain. | (3) |

PART B

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

Module I

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| 9 | Explain about the layered architecture of OSI Reference model with the help of a neat diagram. What are the principal responsibilities of each of this layer? | (6) |
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| 10 | What do you mean by QoS? Explain with the flow control mechanisms. | (6) |
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Module II

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| 11 | Discuss about the MTA with the help of appropriate protocol. Give an example for MAA. | (6) |
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| 12 | What is Socket Programming? Explain the echo server and echo client program using UDP. | (6) |
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Module III

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| 13 | How reliability of data transfer is done in Transport Layer? Explain. | (6) |
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| 14 | Explain the principles of Congestion control with its efficiency and fairness. | (6) |
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Module IV

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| 15 | Explain the connection Management in Virtual Circuits with neat diagrams. What are the different classifications of VCs? | (6) |
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| 16 | What is Routing? Explain Link state routing with OSPF protocol. | (6) |
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Module V

- 17 Discuss about Collision based Multiple access protocol. Compare it with token based Multiple access protocols. (6)

OR

- 18 Explain IEEE802.3 Ethernet with its access protocol. (6)

Module VI

- 19 Explain Wi-Fi Architecture. (6)

OR

- 20 Write a short note on: (6)

- i) Traffic analysis tools.
- ii) Trouble Shooting.
