

Reg No.: _____

Name: _____

APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY
EIGHTH SEMESTER B.TECH DEGREE EXAMINATION(S), OCTOBER 2019

Course Code: EE468
Course Name: COMPUTER NETWORKS

Max. Marks: 100

Duration: 3 Hours

PART A*Answer all questions, each carries 5 marks.*

Marks

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|---|--|-----|
| 1 | What is a computer network? Explain any 4 applications of computer networks. | (5) |
| 2 | Explain the working principle of Bluetooth. | (5) |
| 3 | Compare Virtual Circuit networks and Datagram networks. | (5) |
| 4 | What are the different services provided by transport layer? | (5) |
| 5 | List and explain any 5 performance issues of transport layer. | (5) |
| 6 | Explain the format of a UDP datagram. | (5) |
| 7 | What is MIME? | (5) |
| 8 | What is the need of a DNS protocol? | (5) |

PART B*Answer any two full questions, each carries 10 marks.*

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| 9 | Explain in detail the ISO/OSI reference model. | (10) |
| 10 | a) What is meant by carrier sense multiple access?
b) List and explain the different persistence methods used in CSMA. | (4)
(6) |
| 11 | a) Explain the different categories of computer networks based on scale.
b) Explain the standard Ethernet frame format with diagrams. | (5)
(5) |

PART C*Answer any two full questions, each carries 10 marks.*

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| 12 | a) Why is congestion control required in networking?
b) Explain different methods for achieving congestion control. | (2)
(8) |
| 13 | Explain connection establishment protocol in transport layer with suitable diagrams. | (10) |
| 14 | a) Differentiate between adaptive and non adaptive routing algorithms.
b) Explain the addressing scheme employed in transport layer. | (5)
(5) |

PART D

Answer any two full questions, each carries 10 marks.

- 15 Draw and explain the TCP segment format. (10)
- 16 a) What is electronic mail? (4)
- b) Explain the working of SMTP protocol. (6)
- 17 a) Write the different steps to be carried out while performing a remote procedure call (RPC). (5)
- b) Explain WWW in detail. (5)
