



## P.E.S. College of Engineering, Mandya - 571 401

(An Autonomous Institution affiliated to VTU, Belagavi)

**Third Semester, Master of Computer Applications (MCA)**

**Semester End Examination; Dec. - 2019**

**Computer Networks**

*Time: 3 hrs*

*Max. Marks: 100*

*Note: Answer FIVE full questions, selecting ONE full question from each unit.*

### UNIT - I

- |   |    |  |    |
|---|----|--|----|
| 1 | a. | What is internet? Explain the different ways of service given by an internet.    | 10 |
|   | b. | Explain the different types of delay in packet switched networks.                | 10 |
| 2 | a. | Define switching. List and explain the types of switching with suitable example. | 10 |
|   | b. | Explain TCP/IP reference model with diagram.                                     | 10 |

### UNIT - II

- |   |    |  |    |
|---|----|--|----|
| 3 | a. | Briefly explain the principles of networks applications. | 10 |
|   | b. | Explain HTTP Request and Response message format.        | 10 |
| 4 | a. | Explain file transfer in FTP.                            | 10 |
|   | b. | Explain the classes of DNS servers.                      | 10 |

### UNIT - III

- |   |    |  |    |
|---|----|--|----|
| 5 | a. | What is multiplexing and de-multiplexing? Explain multiplexing and Demultiplexing in connectionless. | 10 |
|   | b. | Explain how UDP is suited for different applications?  | 10 |
| 6 | a. | Explain Briefly congestion control mechanism.  | 10 |
|   | b. | Explain three way handshakes with the help of neat diagram.  | 10 |

### UNIT - IV

- |   |    |  |    |
|---|----|--|----|
| 7 | a. | Explain spanning tree algorithm.                               | 10 |
|   | b. | Explain datagram network.                                      | 10 |
| 8 | a. | Analyze with an example the distance vector routing algorithm. | 10 |
|   | b. | Discuss IPv4 packet header format.                             | 10 |

### UNIT - V

- |    |    |  |    |
|----|----|--|----|
| 9  | a. | Explain four different error-correcting codes. | 10 |
|    | b. | Briefly describe the ARP protocol.             | 10 |
| 10 | a. | Explain the frame format of IEEE 802.11.       | 10 |
|    | b. | Explain the elements of wireless network.      | 10 |

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