Course Code: 2030511 Roll No: MLRS- R20

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## INSTITUTE OF TECHNOLOGY AND MANAGEMENT
(AN AUTONOMOUS INSTITUTION)
(Approved by AICTE, New Delhi & Affiliated to JNTUH, Hyderabad)
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II B.Tech I Sem Supply End Examination, July-2022

**Computer Networks**

**(CSC)**

**Time: 3 Hours.** **Max. Marks: 70**

Note: 1. Question paper consists: Part-A and Part-B.
2. In Part – A, answer all questions which carries 20 marks.
3. In Part – B, answer any one question from each unit.
Each question carries 10 marks and may have a, b as sub questions.

**PART- A**

**(10*2 Marks = 20 Marks)**

| | | | | | |
|---|---|---|---|---|---|
| 1. | a) | Enumerate the differences between point-to-point and multipoint network connections? | 2M | CO1 | BL1 |
| | b) | List the layers of the Internet model? | 2M | CO1 | BL1 |
| | c) | What is Hamming distance? | 2M | CO2 | BL1 |
| | d) | What is IEEE 802.11? | 2M | CO2 | BL1 |
| | e) | What is an IP address? | 2M | CO3 | BL1 |
| | f) | What is the need of network of translation (NAT)? | 2M | CO3 | BL1 |
| | g) | How is congestion controlled at transport layer? | 2M | CO4 | BL1 |
| | h) | Discuss the purpose of using TCP sliding window? | 2M | CO4 | BL2 |
| | i) | How does DNS used in Internet? | 2M | CO5 | BL1 |
| | j) | What is HTTP? | 2M | CO5 | BL1 |

**PART- B**

**(10*5 Marks = 50 Marks)**

| | | | | | |
|---|---|---|---|---|---|
| 2 | a) | List and explain the different types of network topologies? | 5M | CO1 | BL4 |
| | b) | Explain the need of layering for network architecture models? | 5M | CO1 | BL4 |
| | | **OR** | | | |
| 3 | | In detail explain about the layers and their services of OSI Network Model? | 10M | CO1 | BL4 |
| 4 | a) | What is the use of redundancy in error detection and correction | 5M | CO2 | BL1 |
| | b) | Explain HDLC protocol? | 5M | CO2 | BL4 |
| | | **OR** | | | |
| 5 | | With respect to data link layer, explain the operation of stop-and-wait protocol? | 10M | CO2 | BL4 |

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|---|---|---|---|---|---|
| 6 | a) | What are the strategies of transition from IPv4 to IPv6? Explain? | 5M | CO3 | BL4 |
| | b) | Explain the working of ICMP protocol? | 5M | CO3 | BL4 |
| | | **OR** | | | |
| 7 | | With an example network, explain the Link State routing algorithm? | 10M | CO3 | BL4 |
| 8 | a) | Explain the differences between TCP and UDP? | 5M | CO4 | BL4 |
| | b) | Explain QoS in Switched Networks? | 5M | CO4 | BL4 |
| | | **OR** | | | |
| 9 | | Explain the features, services and operation of TCP? | 10M | CO4 | BL4 |
| 10 | a) | Explain the operation of file transfer protocol (FTP)? | 5M | CO5 | BL4 |
| | b) | Write short notes on WWW? | 5M | CO5 | BL1 |
| | | **OR** | | | |
| 11 | | Describe the working of simple mail transfer protocol (SMTP)? | 10M | CO5 | BL2 |

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