Code No.: AI603PC | R20 | H.T.No. | | | 8 | R | | | | | |

# CMR ENGINEERING COLLEGE: : HYDERABAD
## UGC AUTONOMOUS
## III–B.TECH–II–Semester End Examinations (Regular) - June- 2024
## COMPUTER NETWORKS
## (Common for CSC, CSM)

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

**Note:** This question paper contains two parts A and B.
Part A is compulsory which carries 20 marks. Answer all questions in Part A.
Part B consists of 5 Units. Answer any one full question from each unit. Each question carries 10 marks and may have a, b, c as sub questions.

**PART-A** **(20 Marks)**

| | | |
|---|---|---|
| 1. a) | What is ARPANET? | [2M] |
| b) | Describe the importance of networking. | [2M] |
| c) | Define Hamming code with an example. | [2M] |
| d) | Compare between Pure ALOHA and slotted ALOHA. | [2M] |
| e) | List out the internetworking devices. | [2M] |
| f) | Give the advantages of hierarchical routing. | [2M] |
| g) | What is the function of transport layer? | [2M] |
| h) | Explain packet fragmentation. | [2M] |
| i) | What is the function of application layer? | [2M] |
| j) | Discuss about Static and Dynamic web pages. | [2M] |

**PART-B** **(50 Marks)**

| | | |
|---|---|---|
| 2. | Explain about functionality of each layer in OSI reference model. | [10M] |
| | **OR** | |
| 3. | Discuss about Network hardware components in detail. | [10M] |
| 4. | What are various types of Error Detection methods? Explain about Cyclic Redundancy Check Error Detection Method with suitable example. | [10M] |
| | **OR** | |
| 5. | What is framing? Discuss framing techniques of Data Link Layer. | [10M] |
| 6. | Define Routing. Explain Distance Vector Routing Algorithm with an example. | [10M] |
| | **OR** | |
| 7. | Explain Congestion Control Algorithms with neat diagram. | [10M] |
| 8. | Explain in brief about TCP connection establishment and connection Release. | [10M] |
| | **OR** | |
| 9. | Discuss the Elements of Transport layer in detail. | [10M] |
| 10. | Discuss about HTTP request and HTTP response mechanisms. | [10M] |
| | **OR** | |
| 11. | What is DNS? Explain the architecture of DNS servers in Internet. | [10M] |

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