

Code No.: IT503PC

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CMR ENGINEERING COLLEGE: : HYDERABAD
UGC AUTONOMOUS
III-B.TECH-I-Semester End Examinations (Supply) - May- 2023
DATA COMMUNICATION & COMPUTER NETWORKS
(IT)

[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.

PART-A

(20 Marks)

1. a) List the different types of topologies. [2M]
- b) Map OSI layers to TCP/IP layers. [2M]
- c) Describe error control and flow control in data link layer. [2M]
- d) List the significance of a checksum. [2M]
- e) What are the responsibilities of network layer? [2M]
- f) Give the advantages of hierarchical routing. [2M]
- g) Why Transport layer is called source to destination layer. [2M]
- h) Define congestion. [2M]
- i) State the use of conditional get in HTTP. [2M]
- j) What is secure shell? [2M]

PART-B

(50 Marks)

2. Explain about the internet protocol stack. [10M]
- OR**
3. Describe the TCP/IP reference model. [10M]
4. Explain the data link layer protocols with pipelining. How do they differ? [10M]
- OR**
5. Write algorithm for computing the CRC checksum and given the data bits 1000111, compute the hamming bits assuming even parity. [10M]
6. Describe the concept of virtual circuit network and datagram network. [10M]
- OR**
7. Draw and explain about the format of Ipv4 packet. [10M]
8. Describe in detail about TCP datagram format. [10M]
- OR**
9. Explain about closed-loop congestion control in transport layer. [10M]
10. Elaborate the electronic mail in the internet (e-mail). [10M]
- OR**
11. What is SNMP? Discuss about the functions of SNMP. [10M]
