Code No.: CS503PC

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CMR ENGINEERING COLLEGE: : HYDERABAD
UGC AUTONOMOUS
III–B.TECH–I–Semester End Examinations (Supply) – June - 2025
COMPUTER NETWORKS
(Common for CSE, CSD, AI&DS)

[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) Define Computer Network. List its applications.   [2M]
   b) What is ARPANET?   [2M]
   c) List the design issues of Data Link Layer.   [2M]
   d) What are the two sublayers of Data link layer.   [2M]
   e) Write the functions of network layer.   [2M]
   f) Define Congestion.   [2M]
   g) List the three types of addresses in TCP/IP.   [2M]
   h) What are the advantages of using UDP over TCP?   [2M]
   i) What do you mean by TELNET?   [2M]
   j) Write the goal of Domain Name System.   [2M]

PART-B   (50 Marks)

2. Explain in detail about TCP/IP Protocol suite with a neat diagram.   [10M]

OR

3. With neat sketch explain Coaxial cable, Standards of coaxial cable and connectors of coaxial cables.   [10M]

4. Describe framing methods in data link layer with an example.   [10M]

OR

5. Explain stop and wait flow control mechanism for noisy channel with an example.   [10M]

6. Illustrate IPv4 header format and explain each field.   [10M]

OR

7. Explain distance-vector-routing algorithm with an example.   [10M]

8. With a neat diagram, explain connection establishment, data transfer and connection termination in Transmission Control Protocol (TCP).   [10M]

OR

9. Are the TCP Connections are half- duplex? How the Connections will release in TCP?   [10M]

10. Explain the working of domain name system.   [10M]

OR

11. What is electronic E-mail? Describe in brief about the architecture of email.   [10M]

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