

Code No: R18A0513**MALLA REDDY COLLEGE OF ENGINEERING & TECHNOLOGY****(Autonomous Institution – UGC, Govt. of India)****III B.Tech II Semester Supplementary Examinations, April 2023****Computer Networks****(ECE)**

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

Note: This question paper Consists of 5 Sections. Answer **FIVE** Questions, Choosing ONE Question from each SECTION and each Question carries 14 marks.

SECTION-I

1 a) Differentiate between datagram network and virtual circuit network [7M]

b) Classify internet, intranet and extranet with applications [7M]

OR

2 a) Summarize network topologies [7M]

b) Compare circuit switching and message switching. [7M]

SECTION-II

3 a) Illustrate framing methods in data link layer. [7M]

b) Describe encoding and decoding procedures in linear block codes with suitable example [7M]

OR

4 a) What are the different error detection techniques? How errors are detected using CRC. [7M]

b) What is HDLC? Explain in detail. Also name the three modes of operations defined for HDLC protocol [7M]

SECTION-III

5 a) Explain the architecture of ATM [7M]

b) Give the SONET architecture layer and frame formatting [7M]

OR

6 a) What is VLAN? Explain its working [7M]

b) What is a wireless LAN? Mention its advantages and applications. [7M]

SECTION-IV

7 a) Write short notes on ICMP [7M]

b) Illustrate subnetting in networks. [7M]

OR

- 8** a) Explain IPV4 datagram format and header fields with diagrams [7M]
 b) Explain classful addressing in detail [7M]

SECTION-V

- 9** a) Explain the following [3M]
 i) QOS [3M]
 ii) Congestion Control
 b) Discuss the general services provided by UDP [8M]

OR

- 10** Explain with neat diagram connection establishment and connection termination [14M]
 using three way hand shaking in TCP
