No. of Printed Pages : **1**

Sl. No.

C2-R4 : ADVANCED COMPUTER NETWORKS

NOTE :

1. Answer question 1 and any FOUR from questions 2 to 7.

2. Parts of the same question should be answered together and in the same sequence.

Time : 3 Hours **Total Marks : 100**

1. (a) Explain the function of transport and data link layer.
(b) Discuss in brief IPv6 Extension Header.
(c) Draw Only : Flowchart of Random Early Detection (RED) algorithm.
(d) What are the features of IPv6 protocol ?
(e) Define constant bit rate, real time variable bit rate, non-real time variable bit rate, available bit rate.
(f) How does the Reverse Address Resolution Protocol (RARP) work ?
(g) What is Virtual Private Network ? Explain in brief. **(7x4)**

2. (a) Explain distance vector routing protocol.
(b) Compare IPv6 and IPv4 protocols. **(9+9)**

3. (a) Draw and explain UDP protocol header.
(b) Explain the functioning of link state routing. **(9+9)**

4. (a) Differentiate Flow and Congestion Control.
(b) Discuss the frame of Point to Point Protocol that works on Data Link Layer. **(9+9)**

5. (a) Explain synchronous time division multiplexing.
(b) Explain Internet Protocol Version 6 (IPv6) header. **(9+9)**

6. (a) Explain First Come First Serve (FCFS) Splitting Algorithm.
(b) What is Carrier Sense Multiple Access (CSMA) ? Explain various protocols of it. **(9+9)**

7. (a) Draw and Explain TCP protocol header.
(b) Explain Integrated Services Architecture (ISA). **(9+9)**

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