Q.P. Code : 12452

(3Hours) [Total Marks : 80

N.B. (1) Question No.1 is **compulsory**.
(2) Attempt any **3** questions out of remaining questions.
(3) Total **4** questions need to be **solved**.

1. (a) Explain collision detection procedure in CSMA/CD. 5
   (b) Consider a message 11010011101100, divisor 1011. Compute n bit binary CRC. 5
   (c) Compare circuit switched and pachet switched networks. 5
   (d) Differentiate between connection oriented and connectionless services. 5

2. (a) What are the three main functions performed by network layer ? What is routing. 10
   Explain distance vector counting.

   (b) What is IP address ? Why it is required ? What is subnet mask ? Explain is 10
   subnetting and supernetting with Explain.

3. (a) Explain TCP conquestion control. 10
   (b) Explain connection establishment and termination in TCP with neat diagram. 10

4. (a) Explain HDLC protocol with sutiable diagram. 10
   (b) Explain TCP sliding window with neat diagram in detail. 10

5. (a) Explain TCP timer management and transaction TCP. 10
   (b) A IP header from an IP packet received at destination 10
   4500003c1c46440004006b1e6ac100a63ac100a0c. Map these values to IP header
   and explain all bits.

6. Write short note (any **four**) :-- 20
   (i) Network topology
   (ii) GSM operation subsystem (OSS)
   (iii) Link state routing
   (iv) Framing at data link layes.
   (v) Networking using windows and LINUX operating system
   (vi) Static channel allocation of LAN & MAN.

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