[This question paper contains 2 printed pages.]

2517   *Your Roll No.* ....

B.Sc. / II   A

COMPUTER SCIENCE – Paper IV

(Computer Networks and Internet)

Time : 3 Hours   *Maximum Marks : 38*

*(Write your Roll No. on the top immediately
on receipt of this question paper.)*

All *questions are compulsory.*
Draw diagrams wherever necessary.

1. (a) What is a Repeater ? Where is it used ?   (2)

    (b) What is byte stuffing ?   (2)

    (c) What do we mean by reaching "a state of congestion Collapse" ? How does TCP's congestion control scheme help in preventing congestion ?   (2)

    (d) What is broadband and baseband communication ? Where are they used ?   (2)

2. (a) What is Frequency Division Multiplexing ?   (2)

    (b) What is store-and –forward switching ? Where is it used ?   (3)

                                        P.T.O.

(c) Discuss the sliding Window Protocol. Compare it with the stop-and –go Protocol with the help of a diagram. (3)

3. (a) What is CSMA/CD Protocol ? How. is binary exponential back-off algorithm useful to reduce the probability of collision ? (4)

(b) What is broadcasting ? How is it different from multi-casting ? (3)

4. (a) What are the different topologies of LAN ? Explain their significance with respect to 'Locality of reference' principle. (3)

(b) What is network analyzer ? How do LAN hardware use addresses to filter packets ? (4)

5. (a) What are the different classes .of IP addresses ? Briefly explain the division of address space in a IP address. (4)

(b) What are the basic types of Web documents ? State their advantages & disadvantages. (4)