

[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)

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- (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)