

Duration: 3 hours

Max marks: 80

Note the following instructions.

- i) Question No.1 is compulsory (attempt any 4)
- ii) Total 4 questions need to be solved
- iii) Attempt any three questions from remaining five questions.



- 1.a What is the difference between unicast and Multicast routing? [5]
 - 1.b What are the types of timers used in TCP, Explain? [5]
 - 1.c A company is granted the site address 201.70.64.0(Class).The Company needs six subnets .Design the subnets. [5]
 - 1.d Explain Shortest path algorithm with suitable diagram. [5]
 - 1.e Explain the difference between a connection oriented and connectionless service. [5]

 - 2.a Explain Various network hardware devices in detail. [10]
 - 2.b
 - i. What is distance vector routing and link state routing. [5]
 - ii. Explain exterior and interior routing. [5]

 - 3.a What are different types of ARQ? Explain GO BACK N ARQ [10]
 - 3.b What is HDLC? What are HDLC frame types, Explain modes of operation in details. [10]

 - 4.a Draw and explain TCP Header format. [10]
 - 4.b Explain TCP congestion control policy. [10]

 - 5.a What is carrier sensing? Explain CSMA/CD and CSMA/CA in detail. [10]
 - 5.b What is ALOHA? What are the types of ALOHA? Compare them. [10]

 - 6 Write a short notes (**any two**): [20]
 - a. ISO-OSI network model
 - b. Transmission Media
 - c. DNS
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