

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]
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- 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]
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- 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]
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- 4.a** Draw and explain TCP Header format. [10]
- 4.b** Explain TCP congestion control policy. [10]
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- 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]
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- 6** Write a short notes (**any two**): [20]
- a. ISO-OSI network model
 - b. Transmission Media
 - c. DNS