1804M050

M.Lib.Sci. Semester-2 Examination
Lib.-509
Networks & Internet (T)

Time : 1-15 Hours]　　　　　　　April-2024　　　　　　　[Max. Marks : 35

પ્ર. ૧ નેટવર્ક અને નેટવર્કિંગ એટલે શું? નેટવર્કના ઘટકો, મોડલો અને પ્રોટોકોલો જણાવો, 15 ગ્રંથાલયોમાં તેમની જરૂરિયાત જણાવો અને નેટવર્ક ઘટકોની વિગતવાર ચર્ચા ઉદાહરણો સાથે કરો.

અથવા

1. ડેટા કમ્યુનિકેશન એટલે શું? ડેટા ટ્રાન્સમિશનની વિવિધ રીતો સમજાવો.

2. LANની લાક્ષણિકતાઓ એટલે શું? LANSના ફાયદા અને ગેરફાયદા સમજાવો.

3. OSI સંદર્ભ મોડલ દોરો અને તેના કાર્યો સમજાવો.

પ્ર. ૨ નીચેના પૈકી કોઈ પણ બે વિષે ટ્રકનોંધ લખો.　　　　　　　10

1. OSI અને TCP/IP સંદર્ભ મોડલ વચ્ચેનો તફાવત સમજાવો.

2. CALIBNET અને DELNETના સંદર્ભમાં MANના વિવિધ પ્રકારો વિગતવાર સમજાવો?

3. ઈન્ટરનેટ આર્કિટેક્ચરની સરળ આકૃતિ દોરીને સમજાવો.

પ્ર. ૩ અંગ્રેજી વર્ઝન પ્રમાણે.　　　　　　　10

English Version

Q.1 What is Network and Networking? State the network components, models and 15 protocols, state their need in libraries and discuss network components in detail with examples.

OR

1. What is Data Communication? Explain the different modes of data transmission.

2. What are the characteristics of a LAN? Explain the advantages and disadvantages of LANS.

3. Draw the OSI reference Model and Explain its functions.

Q.2 Write short note on any Two from the following.　　　　　　　10

1. Explain the difference between the OSI and TCP/IP reference models.

2. Explain the different types of MAN with reference to CALIBNET and DELNET in detail.

3. Explain Internet Architecture with drawing a simple diagram.

Q.3 Select and write the correct answer from following multiple choice questions 10

1. Which of the following is not the possible ways of data exchange?

(a) Simplex　　　　　　　(b) Half-duplex

(c) Full-duplex　　　　　　(d) Multiplex

PTO

2. What does Router do in a network?

    (a) Forwards a packet to all outgoing links
    (b) Forwards a packet to the next free outgoing link
    (c) Determines on which outing link a packet is to be forwarded
    (d) Forwards a packet to all outgoing links except the originated link

3. Which of the following network device has the slowest type of connection?

    (a) DSL
    (b) Router
    (c) Bridges
    (d) Dial-up modems

4. Which network is able to connect and send data to each computer via central hub or switch without looking where the data is sent

    (a) LAN
    (b) Bus
    (c) Router
    (d) Star

5. IP is defined in:

    (a) RFC 790
    (b) RFC 791
    (c) RFC 792
    (d) RFC 793

6. The maximum speed of Modem is:

    (a) 32 Kbps
    (b) 64 Kbps
    (c) 56 Kbps
    (d) 128 Kbps

7. Which type of protocol is used by interface for public data network (PDN)?

    (a) X.25
    (b) X. 12
    (c) X. 13
    (d) X. 20

8. Which type of switching system is telephone network?

    (a) Message switching
    (b) Circuit switching
    (c) Packet switching
    (d) None of the above

9. How the data are transmitted in microwave transmission?

    (a) Data signals through symbols are transmitted
    (b) Data signals are transmitted
    (c) Data signals are transmitted through the atmosphere
    (d) Data signals are sent directly

10. It carries a radio transmitter and receiver inside it and sends and receives a message in the form of radio waves

    (a) Computer
    (b) Fax machine
    (c) Cell phone
    (d) Photo phone

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