

SEM-5th
Data Communication & Computer network

1. Answer the following :-

[2x10=20]

- a. What do you mean by modes of data transmission?
- b. What is LAN?
- c. How many bits are used in IPV4 & IPV6 address?
- d. Name the different types of topology with examples?
- e. Define Routing?
- f. What do you mean by Ethernet?
- g. Give some examples of Data Communication.
- h. What are the types of networks?
- i. What is Hub?
- j. What do you mean by Protocol?

2. Any 6 questions to be answered :-

[6x5=30]

- a. Define Switch and also mention the use of it?
- b. Differentiate between LAN, MAN & WAN?
- c. What is transmission media and its types?
- d. Write short note on CSMA/CD?
- e. Describe briefly about Piconet?
- f. What do you mean by circuit switching?
- g. Differentiate between Digital & Analog signal?
- h. Describe Mesh topology with a neat diagram?

Answer any 2 questions

[2x10=20]

3. Describe the TCP/IP model with a neat diagram
4. Briefly explain the LAN Protocol architecture?
5. Describe the OSI model?
6. Explain the principles of internetworking?

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1. Answer the following questions:- [2x10=20]

- (i) What is data communication?
- (ii) Define congestion?
- (iii) What do you mean by Medium Access Control?
- (iv) What are the types of networks?
- (v) Define Topology?
- (vi) What is Ethernet?
- (vii) Define Protocol?
- (viii) What is LAN?
- (ix) What is Bridge?
- (x) What do you mean by modes of data transmission?

2. Any 6 questions to be answered:- [6x5=30]

- (i) Explain different types of algorithm use for congestion control?
- (ii) Describe briefly about Piconet?
- (iii) Discuss CSMA/CD Ethernet technique?
- (iv) What do you mean by data traffic?
- (v) Define Switch & also mention the use of it?
- (vi) What is network? Explain briefly.
- (vii) What is transmission media & its types?
- (viii) Differentiate between Analog & Digital signal?

Answer any 2 questions [2x10=20]

3. Define the layering concept in the OSI model of network architecture?
4. What is TCP/IP architecture?
5. What is multiplexing? Explain 3 multiplexing techniques in details?
6. What is switching & explain its types?

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1.

Answer the following :-

[2x10=20]

- i.
- ii.
- iii.
- iv.
- v.
- vi.
- vii.
- viii.
- ix.
- x.

What is topology?

What is MAN?

Name the two protocols of application layer?

What is mean by modes of data transmission?

How many bits are used in IPV4 & IPV6?

Define Protocol?

What is internet?

Define congestion?

What is bit rate?

What do you mean by Digital signal?

2.

Any 6 questions to be answered :-

[6x5=30]

- i.
- ii.
- iii.
- iv.
- v.
- vi.
- vii.
- viii.

Define network and its types?

What is transmission media & its types?

Write notes on CSMA/CD?

Describe Mesh topology with a neat diagram?

Explain different types of algorithm use for congestion control?

Describe briefly about Piconet?

What do you mean by data traffic?

Define the principles of inter networking?

Answer any 2 questions :-

[2x10=20]

3.

Briefly explain the LAN Protocol architecture?

4.

Describe the TCP/IP model with a neat diagram?

5.

Explain the OSI model?

6.

What is multiplexing? Explain 3 multiplexing techniques in details?

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1. Answer the following :-

[2x10 = 20]

- (i) Define Firewall?
- (ii) What is Bus topology?
- (iii) What is Modem?
- (iv) What is an IP?
- (v) What is Bluetooth technology?
- (vi) What do you mean by Client-server network?
- (vii) Define Router?
- (viii) Discuss CSMA/CD ethernet technique?
- (ix) What is SMTP?
- (x) What is congestion control?

2. Attempt any six questions :-

[6x5 = 30]

- (i) Explain the difference between IPV4 and IPV6?
- (ii) Briefly describe the circuit switching?
- (iii) Define various network connecting devices?
- (iv) Define IP and its types and also classes?
- (v) What is Physical topology? Explain different topologies.
- (vi) Explain Hub and its types?
- (vii) Explain different network connectivity devices.
- (viii) Describe the data link layer and transport layer of OSI model?

Attempt any two questions :- [2x10 = 20]

- (3) Explain the difference between TCP/IP and OSI model with neat diagram?
- (4) Write short notes on (a) Firewall (b) SMTP (c) URL (d) PAN (e) Piconet
- (5) Briefly explain the LAN Protocol Architecture?
- (6) What is multiplexing? Explain 3 multiplexing techniques in details?