B

K M M INSTITUTE OF POSTGRADUATE STUDIES ::TIRUPATI
MCA 203-DATA COMMUNICATION AND COMPUTER NETWORKS

Max Time: 3 hrs **Pre-final examination** **Max. Marks: 100**

Section – A

Answer any FIVE questions, each question carry equal marks 5 x 5 = 25

1. Write short notes on Internet model
2. Write short notes on Multiplexing methods
3. Write a short notes on ASK, FSK, PSK?
4. Explain SONET?
5. Explain ARP, ICMP?
6. Write short notes on Unicasting and Multicasting
7. Write short notes on Digital Signature
8. Write about RSA.
9. Explain IPSEC and PGP?
10. What is Tunneling? Explain

Section – B

UNIT – I **15 x 5 = 75**

Answer any Five questions choosing ONE from each Unit

11. a) What is Sampling and what are the various Sampling methods used in networks
    b) Compare and contrast Analog and Digital signals

12. a) What is multiplexing and what are the various multiplexing methods
    b) Write short notes on Transmission Media

UNIT – II

13. Explain Error Detection and Correction methods

14. a) What are the various Data link protocols
    b) Write short notes on Multiple Access protocols

UNIT – III

15. a) Briefly explain Addressing in Network layer
    b) Write about Datagram and Fragmentation

16. Explain the various Network layer protocols

UNIT –IV

17. Give a brief description of TCP and UDP

18. a) What is congestion and give two examples of congestion
    b) Explain QoS and techniques to improve QoS

UNIT – V

19. a) What are the techniques to Digitize and Compress Audio and Video
    b) Write short notes on DDNS, E-mail and SMTP

20. Explain briefly various Application layer protocols.

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MCA 203 - DATA COMMUNICATION AND COMPUTER NETWORKS

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Section – A

Answer any FIVE questions, each question carry equal marks **5 x 5 = 25**

1. Explain various types of Network Topologies
2. What is Switching and explain Switching methods
3. Write short notes on HDLC frame format
4. Write short notes on Bluetooth technology
5. Compare and contrast Static routing and Dynamic routing
6. Explain IPV6 protocol in Network layer
7. Write short notes on Firewalls.
8. Write about Virtual Private Network
9. Explain the protocols available in Network layer
10. Write short notes on HTTP and WWW

Section – B

Answer any Five questions choosing ONE from each Unit

UNIT – I **15 x 5 = 75**

11. a) What is Data Communication? Explain Data Representation.
    b) Explain about various Transmission Media.

12. a) Explain Circuit Switching methods.
    b) Write short notes on xDSL technology

UNIT – II

13. Explain error detection and correction methods.

14. Explain PPP and Channelization in detail.

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UNIT – III

15. Explain various Routing Mechanisms.

16. Explain various control protocols used in Internet.

UNIT –IV

17. Explain the responsibilities of Transport layer with suitable diagram

18. a) Write short notes on Message Security and encryption model
    b) Write short notes on Kerberos

UNIT – V

19. a) Explain Client-Server model
    b) Write short notes on Socket Interface

20. Explain the Real time Audio/Video interface with Compression methods.