Mid-West University
Examinations Management Office
End Semester Examination 2081

Bachelor level/ B. Sc. (CSIT)/ 3rd Semester

Time: 3 hours

Subject: Computer Networks (COM435)

Full Marks: 60

Pass Marks: 30

Candidates are required to give their answer in their own words as far as practicable. The figures in the margin indicate full marks.

Group A

Very short answer questions (attempt *all*) [8x2 = 16]

1. Define a simplex mode with example.
2. What do you mean by IP address and port number?
3. What is FTP?
4. What is HUB?
5. Define a PPP.
6. Write an advantage and disadvantage of guided media.
7. Explain IPV6.
8. Define the Extranet.

Group B

Short answer questions (attempt *any five*) [5x4 = 20]

9. What is cryptography? Explain the two broad classes of cryptography. (private key and public key cryptography)
10. Write the distinguish between TCP and UDP.
11. What is socket call? Explain the types of socket call.
12. What is Domain name system? Explain the how domain system work.
13. What is network layer? Explain the main function of Network layer.
14. A network IP address is given as 192.168.111.28/25. Find the subnet mask, network address, broadcast address, no. of host possible in the network.

Group C

Long answer questions (attempt *any three*) [3x8 = 24]

15. Explain how does CRC detect the errors with multiple bits? Given message is $M(x)=x^7+x^4+x^3+x^2+1$ and the generator is $G(x)=x^3+1$. Show the actual bit string transmitted, suppose the third bit from the left is inverted during the transmission. Show how the error is detected at the receiver's end.
16. Define network architecture and explain its types and draw the block diagram.
17. Discuss data link layer devices. Explain Sliding Window Protocols.
18. Define TCP/IP suite Model. Explain with its layers and diagram.

The End