# Mid-West University Examinations Management Office

Final Examinations-2079 Bachelor level/ B.Sc CSIT / 3<sup>rd</sup> Semester Time: 3 hours

Full Marks: 60 Pass Marks: 30

Subject: Computer Network (COM435)

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

### Long Answer Questions (Any Three)

- [3x8=24]
- 1) Describe the error detection and correction techniques in data link layer.
- 2) Explain about the different types of multiplexing techniques.
- 3) What is network topology? Illustrate the types of network topologies in detail.
- 4) Write about the protocols of transport layer. Also describe the services provided by transport layer.

### Group B

# Short Answer Questions (Any Five)

- [5x4=20]
- 5) Briefly explain about the various layer of TCP/IP model.
- 6) List the types of unguided transmission media and explain any two of them in detail.
- 7) A bit stream 1110011011 is transmitted using the standard CRC method. The polynomial generator is  $x^4+x^3+1$ . What is the actual bit string transmitted?
- 8) What is cryptography? Explain the methods of encryption and decryption of data during transmission.
- 9) Differentiate between Intranet, Intranet and Extranet.
- 10) Write short notes about: HUB, Switch, Router, NIC.

#### **Group** C

11) List the components of data communication.

**Very Short Answer Questions** 

- 12) How half duplex data transmission mode is different from full duplex?
- 13) Mention the functions of presentation layer of OSI Reference model.
- 14) Define WLAN.
- 15) Write the classes of IP address with their range.
- 16) Write about the bit error and burst error.
- 17) Write the composition of optical fiber.
- 18) Clarify the structure of IPV4 with IPV6.

## THE END