Mid-West University
Examinations Management Office
Final Examinations -2079

Bachelor level/ B.Sc CSIT / 3rd Semester	Full Marks: 60
Time: 3 hours	Pass Marks: 30

Subject: Computer Organization and Architecture (COM432)

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) Explain working of common bus system with appropriate diagram and explanation.
2) What is cache memory system? Explain various cache mapping techniques with example.
3) Define handshaking in terms of IO organization. Explain Asynchronous Data Transfer process with appropriate diagram.
4) What are the advantages of pipelining? Explain various steps of instruction pipeline with example and appropriate diagram.

Group B

Short Answer Questions (Any Five)   **[5x4=20]**

5) Differentiate various level of programming in computer system.
6) Define memory management system with appropriate diagram.
7) Explain the following memory reference instructions:
   a) ISZ   b) BSA
8) Write short note on the following:
   a) Selective-complement   b) Selective-clear
9) Explain working of microprogrammed control unit with appropriate diagram.
10) Do the following conversion:
   a) $(4342)_{10}$ to octal   b) $(663)_8$ to binary

Group C

Very Short Answer Questions   **[8x2=16]**

11) Define micro architecture.
12) Why different addressing modes are required in computer system?
13) What is timing signal?
14) List the various pipeline hazards.
15) Define parallel processing.
16) Define mask operation.
17) What is content-addressable memory?
18) Why memory hierarchy is needed in computer system?

THE END