

Mid-West University  
**Examinations Management Office**

End Semester Examination 2081

**Bachelor level/ B. Sc. (CSIT)/ 3<sup>rd</sup> 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**

**Very short answer questions (attempt *all*)**

**[8x2 = 16]**

1. What is machine language?
2. Mention the importance of memory hierarchy in computer system?
3. What is L2 cache?
4. What is the main function of ALU?
5. Provide one example of memory transfer instruction.
6. Define RISC.
7. What is interrupt?
8. What is the main function of control unit?

**Group B**

**Short answer questions (attempt *any five*)**

**[5x4 = 20]**

9. Define HDL. Explain various types of micro-operation?
10. What is BCD? Explain binary 1's complements with example.
11. Differentiate between hardwired control unit and microprogrammed control unit.
12. What are the advantages of CISC Computer Architecture?
13. What is virtual memory? Explain hit-ratio and miss-ratio.
14. Write short note on the following:
  - a) Daisy-Chaining Priority
  - b) Data path

**Group C**

**Long answer questions (attempt *any three*)**

**[3x8 = 24]**

15. What are the different parts of instruction format? Explain instruction cycle with appropriate diagram.
16. Explain Memory Organization in Multi-Processor System.
17. What is the importance of common bus system? Explain it with appropriate diagram.
18. Explain the following:
  - a) Micro-Operations
  - b) RTL

**The End**