Course: Computer Organization & Architecture **Course Code: 21VMT0C105**

Assignment: 1 **Full Marks: 30**

Subjective Section (10 Marks)

Instructions :

- This section is of 10 marks
- Question Allotment
  - Question 1 is from Unit 1
  - Question 2 is from Unit 2
- Submission of the assignment
  - Format: PDF with proper question numbers and subsections
  - Handwritten solutions will not be accepted
  - All the answers should be original, plagiarism will not be tolerated.
- Step marks will also be awarded, in case the final answer is incorrect or if the answer is incomplete

All the questions are mandatory

Question 1

Register A holds the 8 bit Binary value 11011001. Determine the B operand & the logic micro operation to be performed in order to change the value in A to :-

(a) 01101101 (2.5 marks)

(b) 11111101 (2.5 marks)

Question 2

A two word instruction is stored in memory at an address designated by symbol W. The address field of the instruction(stored at W+1) is designated by symbol Y. The operand used during the execution of the instruction is stored at an address symbolized by Z. An index register contains the value X. State how Z is calculated from other addresses if the addressing mode of the instruction is :-

(a) Direct (1 mark)

(b) Indirect (1 mark)

(c) Relative (1 mark)

(d) Indexed (2 marks)