

**Department of Computer Science and Engineering**

**FS BE III CSE 1503 Computer Organization**

**Date: 17<sup>th</sup> August, 2023**

**Time: 9:30 to 10:30 am**

**Max Marks: 20**

**Q.1**

- 1) Draw and explain the circuit for addition of sign – 2's complement numbers. [3]
- 2) Determine the logic operation that will selectively set bits in register A in those positions where there are 0's in the bits of register B. [2]
- 3) What is the minimum size required for MAR if memory addressed has size 8K X 16? [2]
- 4) Explain importance of Bus Organization in a processor unit. [4]

**Q.2**

- a) Draw and explain design of One Stage of Logic Circuit briefly. [5]
- b) List out the methods of designing Control Organization and explain briefly any two of them. [4]

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