Assignment: 2

Subject Code: CC-201

Subject Name: Computer Organization

Date of Submission: 8/9/2021

Title: Data Representation and transfer micro operations

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1. Explain (r)'s and (r-1)'s complement with example.
2. Perform binary addition
   1) 1111 + 10101
   2) 1100 + 11001
   3) 11111 + 11101
   4) 10111 + 110101
   5) 11101 + 1010
3. Perform binary subtraction
   1) 1001 – 11
   2) 1101 - 11
   3) 10. 10001 - 100
   4) 1101 – 110
   5) 1111 – 111
4. Explain floating point numbers with example. Also explain normalization of floating point number.
5. Explain error detection code with diagram.
6. What is bus? Write types of bus.
7. Explain memory transfer with diagram using multiplexer.
8. What is three state buffers? Explain bus system using three state buffers.
9. Write four types of micro operations.
10. Explain binary adder- subtractor with diagram.
11. Explain binary incrementer with diagram.
12. Explain arithmetic circuit with diagram.
13. Explain hardware implementation of logic micro operations with diagram.
14. Explain types of shift micro operations
15. Explain hardware implementation of arithmetic shift with diagram.
16. Explain arithmetic logic shift with diagram.