TRIBHUVAN UNIVERSITY

FACULTY OF MANAGEMENT

Office of the Dean

January 2021

Full Marks: 60

Pass Marks: 30

Time: 1.5 hrs.

BIM / Third Semester / IT 217: Computer Organization

Candidates are required to answer the questions in their own words as far as practicable.

Attempt any Six Questions: *[6 × 10 = 60]*

1. List the significance of complements in the digital computer. Explain fixed point representation with example.

2. Explain arithmetic and shift micro operations in brief.

3. Evaluate the arithmetic statement X= (P+Q) *(R+S) using a general register computer with three address and two address instruction format.

4. An instruction is stored at location 500 with its address field at location 501. The address field has value of 800. A processor register R1 contains the number 300. Evaluate the effective address if the addressing mode of the instruction is (a) Direct (b) Immediate (c) Relative (d) Register Indirect.

5. Multiply $(+7)_{10}$ with $(-3)_{10}$ by using Booth's multiplication and draw flowchart for corresponding example.

6. What is the use of control address register in micro programmed organization? Differentiate between RISC and CISC.

7. What is the purpose of strobe pulse in asynchronous data transfer? Explain how handshaking method resolve the problem in strobe control method.

8. What do you mean by multiprocessor? List different interconnection structures and explain any two of them.

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