Lumbini City College
Mid Term Paper-2081

Bachelor Level / Second Year / Third Semester / Science **Full Marks: 30**
Computer Science and Information Technology (CSC 208) **Pass Marks: 12**
(Computer Architecture)
Time: 1.5 hours.

Candidates are required to give their answers in their own words as far as practicable. The figures in the margin indicate full marks.

Attempt all questions.

1. Explain the working of Booth's multiplication algorithm and perform multiplication of 5 and (-11) using the same algorithm. **[5]**
2. Explain the instruction format of a basic computer. Write down symbolic microinstruction for FETCH. **[5]**
3. What is DMA? Explain the DMA controller with a block diagram. How does the DMA interact with an I/O device? **[10]**
4. Write the program for the following statement by using three, single, and zero-address instructions.
   X = (A + B * C - D) / (E + F * G) **[5]**
5. Differentiate between RISC and CISC architecture. **[5]**