



UTTARAKHAND OPEN UNIVERSITY, HALDWANI (NAINITAL)  
उत्तराखण्ड मुक्त विश्वविद्यालय, हल्द्वानी (नैनीताल)

MCA-16 1<sup>ST</sup> YEAR 2<sup>ND</sup> SEMESTER ASSIGNMENT

*Last Date of Submission: 31/05/2017*

**Course Title:** Computer Organization and Architecture

**Course Code:** MCA-05

**Year:** 2016-17

**Maximum Marks:** 30

Section 'A' contains 08 short answer type questions of 4 marks each. Learners are required to answer 4 questions only. Answers of short answer-type questions must be restricted to 250 words approximately.

1. Distinguish between combinational circuit and sequential circuit.
2. What do you mean by multiplexer?
3. Compare RISC and CISC architecture.
4. What is the significance of pipelining? Discuss it.
5. Differentiate between a pipelined computer and a non-pipelined computer.
6. Differentiate between Static RAM and Dynamic RAM.
7. What is the function of cache memory?
8. Write short notes on the following:
  - (a) Paging
  - (b) Direct Mapping

Section 'B' contains 04 long answer-type questions of 7 marks each. Learners are required to answer 02 questions only.

1. What are the building blocks of Central Processing Unit? Briefly discuss the functions of each unit.
2. What do you mean by Addressing Mode? Discuss different types of addressing modes including the advantages and disadvantages of each mode.
3. What is logical and physical address? Discuss physical and virtual memory?
4. Describe the functions of the I/O Interface units in a computer.