



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

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

*Last Date of Submission: 31May 2016*

**Course Title:** Computer Organization and Architecture

**Course Code:** MCA-05

**Year:** 2015-16

**Maximum Marks:** 40 Marks

**Section 'A' contains 08 short answer type questions of 5 marks each. Learners are required to answers 4 questions only. Answers of short answer-type questions must be restricted to 250 words approximately.**

1. What is the difference between parallel processing and pipeline processing?
2. Discuss about the Hardwired implementation of the control unit.
3. What is Bus? Draw the single bus structure.
4. What are the methods for determining which I/O device has requested an interrupt?
5. State and explain in brief Flynn's classification of Multiprocessor architecture.
6. Explain the concept of Virtual Memory.
7. What do you mean by locality of reference? What are its types?
8. Discuss memory disk caching with level 1 and level 2 cache.

**Section 'B' contains 04 long answer-type questions of 10 marks each. Learners are required to answers 02 questions only.**

1. Explain Wormhole routing for message-passing technique.
2. a. Write briefly about interrupt? How to handle multiple interrupts.  
b. Discuss the Instruction Execution Cycle without interrupt and with interrupt.
3. What do you mean by Addressing Mode? Discuss different types of addressing modes including the advantages and disadvantages of each mode.
4. Discuss the basic concepts of pipelining.