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

Chm/ Dhn/ ADhn/ adns/ adcs (M-06) ASSIGNMENT

Basic Digital Electronics, Assembly, Installation & Troubleshooting, Computer Architecture

Last Date of Submission: 15 June 2011

Course Title: Basic Digital Electronics, Assembly, Installation & Troubleshooting, Computer Architecture **Course Code: M-06**

Year: 2010-11 **Maximum Marks: 20 Marks**

Section 'A'

Note: Section 'A' contains eight short answer type questions of 2.5 marks each. The learners are required to answers four questions only. Answers of short answer-type questions must be restricted to about 250 words approximately.

1. Implement the Boolean function:

   F= AB`CD` + A`BCD` + AB`C`D + A`BC`D

   With OR and AND gates.
2. Convert the following into a binary number and a hexadecimal number.
   a. 1234
   b. 9867
3. Write truth table of NAND and X-OR gate and explain its function.
4. Compare Impact and non-Impact printers.
5. What is bus? Discuss various types of buses with their features?
6. Explain all the components of computer system with block diagram.
7. Differentiate between memory-mapped I/O and isolated I/O.
8. Write assembly language program to add two numbers.

Section 'B'

Section 'B' contains four long answer-type questions of 5 marks each. Learners are required to answers two questions only.

1. Draw and explain the internal architecture of 8085 Microprocessor.

2. What are the various problems can occur in monitor? How these can be overcome? Explain.
3. Discuss various Page Replacement Algorithms and which one is best and why?
4. Discuss Interrupt cycle. Explain how the Interrupt technique is useful to increase the efficiency of processing.