



UTTARAKHAND OPEN UNIVERSITY, HALDWANI (NAINITAL)  
उत्तराखण्ड 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 January, 2012*

**Course Title: Basic Digital Electronics,  
Assembly, Installation & Troubleshooting,  
Computer Architecture**

**Course Code: M-06**

**Year: 2011-12**

**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 answer four questions only. Answers of short answer-type questions must be restricted to about 250 words approximately.**

1. Differentiate between Sequential Circuit and Combinational Circuit.
2. Discuss the basic storage element in a digital system.
3. Differentiate between Synchronous and Asynchronous counter.
4. Explain different addressing modes with example.
5. Discuss Interrupt cycle. Explain how the Interrupt technique is useful to increase the efficiency of processing.
6. What are the things one should keep in mind before installation of the Operating System?
7. How you can use Device Manager to Troubleshoot Devices?
8. Define Boot Process and also explain Examining the Windows XP Professional Boot Process.

**Section 'B'**

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

1. Explain the following with truth table and block diagram:
  - a. Encoders
  - b. Decoders

- c. Multiplexers
  - d. De multiplexers
2. Simplify the following Boolean expression:
- a.  $F=X'Z+X'Y+XY'Z+YZ$
  - b.  $F(W,X,Y,Z)=\sum(0,1,2,4,5,6,8,9,12,13,14)$
  - c.  $F=A'B'C'+B'CD'+AB'C'+A'BCD'$
  - d.  $F(W,X,Y,Z)=\sum(0,5,10,11,12,13,15)$
3. Write short notes on the following:
- a. RISC Vs CISC
  - b. Virtual memory
4. Discuss Printer Characteristics, Compare different printers. How you will install Network printer.

