



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

BCA-16/BCA-17 1ST YEAR 1ST SEMESTER ASSIGNMENT

Session - 2017-18, Summer Last Date of Submission: 31st October 2017

Session - 2017-18, Winter Last Date of Submission: 30th April 2018

Course Title: Computer Fundamental and Introduction to Digital Logic

Course Code: BCA-01

Year: 2016-17

Maximum Marks: 30

Section 'A' contains 08 short answer type questions of 4 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 Flip Flop? Why is it used? Explain any kind of Flip Flop with diagram.
2. Explain the characteristics of computer.
3. What is a shift register? Explain its working with diagram.
4. Define and describe DeMorgan's theorem.
5. What are input devices and output devices? Explain any 2 input devices and any 2 output devices.
6. Explain the following :
 - i. Primary Memory
 - ii. Secondary Memory
7. Write about binary addition and subtraction with examples.
8. Explain the Functions of Memory.

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

1. Explain Logic Gates? How are they useful?
2. Discuss Universal Gates? Create NAND Gate using NOR Gates only. Create NOR Gate using NAND Gates only.
3. Draw the Circuit Diagram and show with the help of truth table the following :
 - (i) $(A+B+C).(A+B.C)$

(ii) $(A.B.C)+(A.B+C)$

4. Draw a logic circuit for full adder and explain it with the help of a truth table.

