



AF-3050

B.Sc. (Part-II)
Term End Examination, 2017-18

INFORMATION TECHNOLOGY

Paper - I

Time : Three Hours] [*Maximum Marks* : 50

Note : Answer **all** questions. All questions carry equal marks.

Unit-I

1. What is Number system? Explain with example various types of Number system used in Digital system.

OR

Perform the following Arithmetics :

- (a) $1011 - 1000$ (using 1's Complement Method)

(2)

(b) Simplify using K-Map

$$F(w, x, y, z) = \sum (1, 3, 5, 7, 13, 15)$$

(c) 10111.10/11

Unit-II

2. What are flip-flop ? Explain various types of flip-flop.

OR

Explain the following :

(a) Binary Counter

(b) BCD Adder

Unit-III

3. What are Multivibrator Circuit ? Explain with example.

OR

What are Integrated Circuit ? Explain the different types of IC used in digital system.

Unit-IV

4. Discuss the function of Program Counter (PC), Stack Pointer (SP) and Status Register.

OR

(3)

Explain Instruction format ? What are the various types of Instruction format ?

Unit-V

5. What are Memory ? Explain Memory Management Technique.

OR

Explain the following :

- (a) Cache Memory
 - (b) Virtual Memory
- _____