

21-12-2015



DOON UNIVERSITY, DEHRADUN
End Semester Examination, First Semester, 2015
School of Technology

Integrated M.C.A. Program
First Semester
STM-506: Digital Circuits And System

Time Allowed: 3Hours

Maximum Marks: 50

SECTION: A (Short Answer Type Questions/ to be answered in about 25/50/75/150 words.
Attempt All Questions.

(Marks:-10 X 1=10)

1. How many flip flops are required to build a binary counter circuit to count from 0 to 1023?
 1. 6
 2. 10
 3. 24
 4. 12
2. Counter is a
 1. combinational circuit.
 2. sequential circuit.
 3. both.
 4. none.
3. What will be Excess - 3 code for decimal (584)?
 1. (0111 0100 1000).
 2. (1000 1011 0111).
 3. (1011 0111 1000).
 4. (1000 0111 1110).
4. In the toggle mode a JK flip-flop has
 1. J = 0, K = 0.
 2. J = 1, K = 1
 3. J = 0, K = 1.
 4. J = 1, K = 0
5. The 2's complement of the number of 1010101
 1. 0101011.
 2. 0101010.
 3. 1101010.
 4. 1110011.
6. Which of these sets of logic gates are designated as universal gates?
 1. NOR, NAND.
 2. XOR, NOR, NAND.
 3. OR, NOT, AND.
 4. NOR, NAND, XNOR.