

Roll No.

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Total No. of Pages : 02

Total No. of Questions : 07

BCA (2011 & Onward) (Sem.-3)
DIGITAL CIRCUITS AND LOGIC DESIGN
Subject Code : BSBC-303
Paper ID : [B0230]

Time : 3 Hrs.

Max. Marks : 60

INSTRUCTION TO CANDIDATES :

1. **SECTION-A** is **COMPULSORY** consisting of **TEN** questions carrying **TWO** marks each.
2. **SECTION-B** contains **SIX** questions carrying **TEN** marks each and a student has to attempt any **FOUR** questions.

SECTION - A1) **Write briefly :**

- a) What are called don't care conditions?
- b) What is overflow?
- c) What are combinational circuits?
- d) What are Decoders?
- e) What is Multiplexer?
- f) What are the types of Shift Registers?
- g) Write the names of universal gates.
- h) How to convert decimal number to binary number?
- i) What is latch?
- j) What are counters?

SECTION - B

2. What is Number System? Explain 1's complement and 2's complement with example.
3. Explain half adder and full adder in detail.
4. What is flip flops? Explain its types and applications.
5. Explain clock Pulse generator using 555 timer in detail.
6. Write short notes on following :
 - a) MOD-N Counters
 - b) POS form
7. Explain the following :
 - a) XOR and XNOR Gates
 - b) Encoders