

Exam. Code : 107202
Subject Code : 1614

Bachelor of Computer Application (BCA) 2nd Semester
PRINCIPLES OF DIGITAL ELECTRONICS

Paper—II

Time Allowed—3 Hours] [Maximum Marks—75

Note :— Attempt *five* questions in all, selecting at least *one* question from each section. The *fifth* question may be attempted from any section. All questions carry equal marks.

SECTION—A

1. Convert the following Numbers :
 - (a) $(124)_8$ to $(\dots)_{10}$
 - (b) $(147)_8$ to $(\dots)_2$
 - (c) $(654)_{16}$ to $(\dots)_2$
2. Explain BCD and Gray codes.

SECTION—B

3. Explain basic and universal logic gates in detail.
4. Simplify following Boolean expression using K-Map $\Sigma(0,1,2,3). D(0,4,5,7,6)$.

SECTION—C

5. Explain four bit subtractor and 4 bit encoder.
6. What is meant by Flip Flops ? Explain working of T-flip flop.

SECTION—D

7. What are the dynamic devices ? Explain with example.
8. Explain timing diagram for ICs.