

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY
DIPLOMA ENGINEERING – SEMESTER – III • EXAMINATION – WINTER 2015

Subject Code: 3331703

Date: 04/12 /2015

Subject Name: Digital Techniques

Time: 10:30 AM TO 01:00 PM

Total Marks: 70

Instructions:

1. Attempt all questions.
2. Make Suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.
4. Use of programmable & Communication aids are strictly prohibited.
5. Use of only simple calculator is permitted in Mathematics.
6. English version is authentic.

Q.1

Answer any seven out of ten.

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1. Convert hexadecimal value 16 to decimal.
A. 22_{10} B. 16_{10}
C. 10_{10} D. 20_{10}
2. Convert $(187)_{10}$ decimal number to 8-bit binary.
A. 10111011_2 B. 11011101_2
C. 10111101_2 D. 10111100_2
3. Which of the following is the most widely used alphanumeric code for computer input and output?
A. Gray B. ASCII
C. Parity D. EBCDIC
4. Convert $8B3F_{16}$ to binary.
A. 35647 B. 011010
C. 1011001111100011 D. 1000101100111111
5. Convert the following binary number to octal.
 010111100_2
A. 172_8 B. 272_8
C. 174_8 D. 274_8
6. The sum of $11101 + 10111$ equals _____.
A. 110011 B. 100001
C. 110100 D. 100100
7. Convert 1100101000110101_2 to hexadecimal.
A. 121035 B. CA35
C. 53AC1 D. 530121
8. A decimal 11 in BCD is _____.
A. 00001011 B. 00001100
C. 00010001 D. 00010010
9. The 1's complement of 10011101 is _____.
A. 01100010 B. 10011110
C. 01100001 D. 01100011
10. The BCD number for decimal 16 is _____.
A. 00010110 B. 00010000

