RCT –1
DIGITAL ELECTRONICS

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Date……. April, 2015

Time…….....30 Min.

Each Question……1 Mark

(No Negative Marking)

Q1. A number in signed binary 2's complement form is stored in a 4 bit register as .

1	0	0	1

This number when stored in an 8 bit register, is

a	1	0	0	1	1	0	0	1
b	0	0	0	0	1	0	0	1
c	1	1	1	1	1	0	0	1
d	1	0	0	1	1	1	1	1

Q2. Consider two signed binary numbers in 2's complement form P = 11101, Q = 10100 If P is subtracted from Q, the result expressed in 8 bit signed binary 2's complement form

(a) 11011001

(b) 11110111

(c) 00001001

(d) 11111001

Q3. The range of integers that can be expressed using 6 bits in signed binary 2's complement form.

(a) -31 to + 31

(b) -64 to + 63

(c) -63 to + 63

(d) -32 to + 31

Q4. Octal equivalent of $(235)_7$

(a) 160 (b) 174

(c) 183 (d) 236

Q5. The binary equivalent of the Gray code 100.11011

(a) 11011011 (b) 10011110

(c) 11010110 (d) 11101101

Q6. Decimal equivalent of the number expressed in signed binary 1's complement form as 110101100

(a) - 83 (b) - 87

(c) - 84 (d) -92

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Answer Key

1	**C**	**2**	**B**	**3**	**D**
4	**B**	**5**	**D**	**6**	**A**