2014

Time: 3 hours
Full Marks: 80

Candidates are required to give their answers in their own words as far as practicable.
The figures in the margin indicate full marks.
Answer from both the Groups as directed.

Group – A

(Objective Type Questions)

1. Answer all questions:

   2 \times 10 = 20

   (a) Choose the correct answer of the following counter is:

   (i) 4
   (ii) 5
   (iii) 6
   (iv) 8

   (Turn over)
(b) What is the form of the Boolean expression of \((A + B) (B + C)\)?
   (i) Product of sums
   (ii) Sum of products
   (iii) K-map
   (iv) Matrix

(c) The Binary addition \((10 + 1001)\) equals to:
   (i) 1011 with carry 0
   (ii) 1001 with carry 1
   (iii) 1010 with carry 0
   (iv) 1 with borrow

(d) _______ is a type of processor architecture that utilizes highly optimized set of instructions.
   (i) CISC
   (ii) RISC
   (iii) VISC
   (iv) LISC

(e) Negative numbers are stored in the system in the form of:
   (i) 2's complement

(f) A full counter with \(n\) flip flop will have _______ states.
   (i) \(2n\)
   (ii) \(2n - 1\)
   (iii) \(2n + 2\)
   (iv) None of the above

(g) The binary number of the Gray code number 110011 is _______.
   (i) 11010
   (ii) 10010
   (iii) 10110
   (iv) 00101

(h) The decimal value of \((110101.01)\) is _______.
   (i) 53.75
   (ii) 55.75
   (iii) 51.75
   (iv) 57.25

NR-21/4 (2) Contd.