Total No. of printed pages = 6

END SEMESTER EXAMINATION - 2019

Semester : 4th (New Syllabus)

Subject Code : CO-406

DIGITAL ELECTRONICS

Full Marks – 70

Time – Three hours

The figures in the margin indicate full marks for the questions.

PART – A

Marks – 25

1. Fill in the blanks : 1×10=10

   (a) Output of AND gate is high if and only if its all inputs are _____.

   (b) NOT gate is also known as _____.

   (c) Nibble is a group of _____ bits.

   (d) BCD means _____.

   (e) Demultiplexer has _____.

[Turn over

(f) Flip flop is a _____ element.

(g) Flip flop has _____ states.

(h) SISO means_____.

(i) Minimum number of flip flop required for decade counter is _____.

(j) ROM means _____.

2. Write true or false : 1×10=10

(a) In NAND gate output is high if all inputs are high.

(b) Flip flops are memoryless elements.

(c) In 2's complement representation one is added to its one's complement form.

(d) Zero is used to represent positive sign number.

(e) Encoding is the process of coding alphabets, numerals and symbols in binary format.

(f) Karnaugh-map (K-map) is used to minimize logic operations.

(g) Resisters is composed of group of flipflops to store group of bits.

(h) In bidirectional register, data can be shifted in one direction.

(i) Up counter increases on every clock pulse.

(j) LED is liquid emission diode.

3. Choose the correct answer : 1×5=5

(a) Output of Ex-OR gate is

(i) A'B+AB (ii) AB+A'B'

(iii) A'B+AB' (iv) A'B'+A'B

(b) Add binary numbers 1011 and 1100

(i) 10111 (ii) 10011

(iii) 10001 (iv) 11100

(c) In SOP (sum of product) form

(i) AND terms ORed together

(ii) OR terms ANDed together

(iii) AND terms ANDed together

(iv) OR terms ORed together