

Department of Electronics & Communication Engineering

Faculty of Engineering, Integral University, Lucknow

Quiz 1

Mechatronics (IEME-024)

Candidate Name :

Time : 10

Minutes

University Roll Number & Group:

Date : August 19, 2015

Maximum Marks : 10

Year : Pre Final Year Mechanical Engineering

Note : Attempt all the question. All question carry equal marks.

1. A pure sine wave is :

- a) a digital signal
- b) analog signal
- c) can be digital or analog signal
- d) neither digital nor analog signal

2. A register is:

- a) a group of memories
- b) a group of devices that store digital data
- c) a chip used in computer
- d) a pure silica piece used in digital system

3. AND operation is:

- a) $X(X + Y)$
- B) XY
- C) $X+Y$
- D) $(X+Y)(X+Y)$

4. Which one is the universal gate:

- a) AND gate
- b) OR gate
- c) NAND gate
- d) EX-OR gate

5. The gray code for number 2 is :

- a) 0010
- b) 0011
- c) 1000
- d) 0101

6. The Excess 3 for number 6 is :

- a) 1100
- b) 1001
- c) 0101
- d) 0110

7. The expression for sum of A, B in the half adder is given by:

- a) AB
- b) $A + B$
- c) $A \oplus B$
- d) none of these

8. Which of the following flip-flops is used as latch:

- a) JK flip-flop
- b) D flip-flop
- c) RS flip-flop
- d) T flip-flop

9. Combinational circuit has :

- a) memory
- b) no memory
- c) flip-flops
- d) counters

10. In 8:1 mux the no. of select lines are :

- a) 1
- b) 3
- c) 5
- d) 32