2019

MSc

2nd Semester Examination

ELECTRONICS

PAPER – ELC-205(Prac.)

Full Marks: 50

Time: 3 Hours

The figures in the right-hand margin indicate full marks.

Candidates are required to give their answers in their own words as far as practicable.

Illustrate the answers wherever necessary.

PRACTICAL

ANSWER ANY ***ONE*** QUESTION SELECTING IT BY A LUCKY DRAW.

1. Design an astable multivibration using 555 timer for two different duty cycles. Duty cycles & frequency are to be provided at examination hall.

2. Design a four bit R -2R ladder network to convert a digital signal into analog signal.

3. Design a MOD – 13 ripple counter.

4. Design a random counter which will count the following states (1, 5, 7, 3, 2, 0, 4, 6)

5. Design a full adder circuit by NAND gates only.
   Also realize the circuit by using 4:1 MUX.

6. Design J K & MS flip – flop convert then into T & D type flip – flops.

7. Design a MOD – 10 synchronous counter and show its counting states.

8. Design a full substractor circuit by NAND gates only.
   Also realize the circuit by using 4:1 MUX.

9. Design two bit comparator circuit.
   Compare two binary numbers.

Distribution of marks

Theory	: 10
Circuit (Implementation)	: 10
Experiment	: 10
Result and Discussion	: 10
Viva – voce	: 10
Lab note book	
Total	50