

**Dantan II Govt. General Degree College**

**Assignment set for internal evaluation**

**Sub . Digital electronics**

**GE 4 , 4 TH SEM**

**FM 30**

**Gr A ( Theory )**

Ans any 1 question 20

1.1. Show that NAND GATE is universal nature

1.2 Design EX -OR GATE using basic GATES.

OR

2.1 What is FULL ADDER circuit , design a FULL ADDER circuit using basic GATES.

Or

3.1 State and discuss D Morgans theorem. Discuss two bit Half Subtractor .

Convert a)  $(123)_{10}$  b)  $(11101101)_2$

Or

4. 1 Discuss Semiconductor , classify it . Discuss P type semiconductor with energy band diagram. What is Fermi level

**Gr B ( Practical) Marks 10**

1.1 Design a HALF ADDER circuit, mention sum and carry for design a circuit

Or

1.2 Discuss the characteristic of a pn junction diode with proper circuit diagram