

Modi Institute of Technology

Name :- Manish Sharma

Roll no :- 19/N/032

Subject :- DE (Digital electronics)

Date :- 18/9/21

Branch :- Computer Science

Semester :- III Sem

Part (A) :-

(1) :- (a) Hexadecimal

(2) :- (b) 4

(3) :- (d) NOR, NAND

(4) :- (c) flip-flop

(5) :- (b) POS

(6) :- (b) $J=1, K=1$

(7) :- (a) 4 bits

(8) :- (b) 2

(9) :- (b) one input many output

(10) :- (C) 0100110

Part (B) :-

Q.11 :- What is Multiplexer?

Ans 11 :- A Multiplexer is a device which converts many Signal into one

Q.12 :- What is Flip-Flop?

Ans 12 :- A flip-flop is an electronic circuit with two stable states that can be used to store binary data.

Q.13 :- What is Subtractor?

Ans 13 :- An electronic logic circuit for calculating the difference between two binary numbers, the minuend and the number to be subtracted the subtrahend.

Q.14 :- Write down truth table of D Flip flop.

Ans 14 :-

| D FLIP FLOP | | |
|-------------|--------|-------|
| INPUT | OUTPUT | |
| D | Q | Q^1 |
| 0 | 0 | 1 |
| 1 | 1 | 0 |

Q.15 :- What is counter?

Ans 15 :- Counter is a Sequential circuit. A digital circuit which is used for a counting pulses is known counter.