

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 <sup>1</sup>
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.