

class - B. Tech (ECE) only

Sub + ADV.

Faculty + Mandeep Singh

Date + 19/5/2020

Topic + Design of D flip flop

	Input	Output	
	D	$Q_n$	$\overline{Q_n}$
clk ↑	0	0	1
↑	1	1	0

Planning for .....

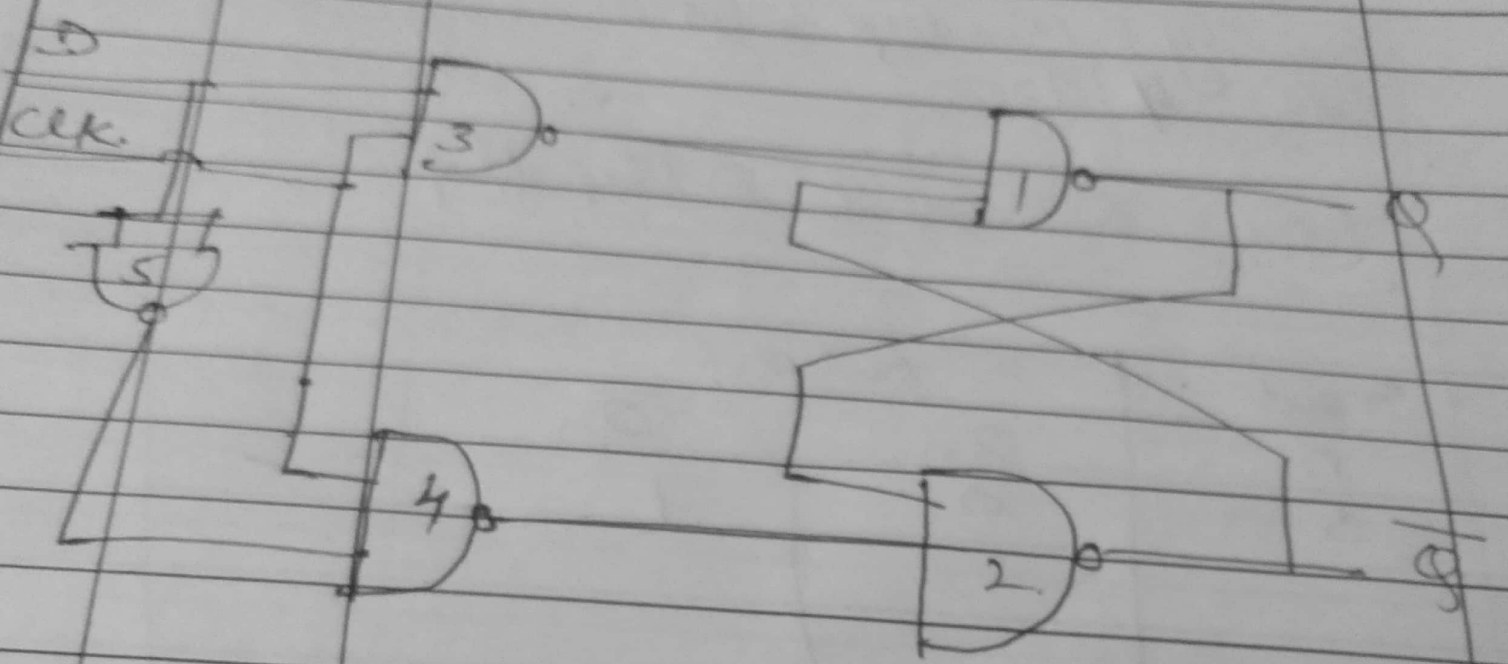
to .....

Days  
Period

Class  
Subject

Class Work Forecast

Home Wo



Planning for ...  
Class  
Subject

VHDL Code for D flip flop

```
library ieee;  
use ieee.std_logic_1164.all;
```

```
entity dff is
```

```
port (d, clk : in bit,
```

```
q, qbar : buffer bit);
```

```
end dff;
```

Architecture of Dff is

```
signal d1, d2 : bit;
```

```
begin
```

$dk \equiv d \text{ nand } clk;$

$d2 \leftarrow (\text{not } d) \text{ nand } clk;$

$q \leftarrow d1 \text{ nand } qbar;$

$qbar \leftarrow d2 \text{ nand } q;$

end behaviour.