

DENEY PROTOKOL KAĞIDI

| Deney No | Deney Tarihi | Deney Adı |
|----------|--------------|---------------------------------------|
| 6.2 | 24.11.2023 | Logic Gates and Basic Memory Circuits |

| Grup No | Öğrenci No | Adı Soyadı |
|---------|------------|--------------------|
| D-3 | 040190108 | Berfin DUMAN |
| D-2 | 040190087 | İsmail İlke GÖNGÖR |
| D-3 | 040190554 | Utku Öney |
| D-3 | 040190090 | Onur KOKEL |

| Araş Gör Ve imzası | Holisi anal |
|-----------------------|-------------|
|-----------------------|-------------|

6.1

NAND kapısı ile OR- AND- NOT gerçekleştirilmesi

AND

2-input AND GATE

| A | B | Q |
|---|---|---|
| 0 | 0 | 0 |
| 0 | 1 | 0 |
| 1 | 0 | 0 |
| 1 | 1 | 1 |

NOT

| A | Q = \bar{A} |
|---|---------------|
| 0 | 1 |
| 1 | 0 |

OR GATE

| A | B | Q |
|---|---|---|
| 0 | 0 | 0 |
| 0 | 1 | 1 |
| 1 | 0 | 1 |
| 1 | 1 | 1 |

6.2 SR Latch

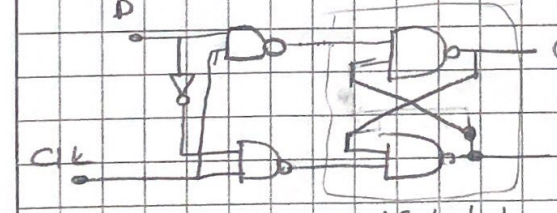
| S | R | Q | \bar{Q} |
|---|---|----|-----------|
| 0 | 0 | 1 | 1 |
| 0 | 1 | 1 | 0 |
| 1 | 0 | 0 | 1 |
| 1 | 1 | NC | NC |

NC → No Change

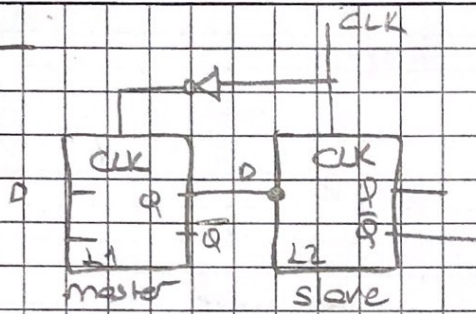
remain present state flabite

6.3

6.3

|  <p>SR Latch</p> | <table border="1"> <thead> <tr> <th>Ck</th><th>D</th><th>Q(t+1)</th></tr> </thead> <tbody> <tr><td>0</td><td>x</td><td>Q(t)</td></tr> <tr><td>1</td><td>0</td><td>0</td></tr> <tr><td>1</td><td>1</td><td>1</td></tr> </tbody> </table> <p>Memory pibicahon</p> | Ck | D | Q(t+1) | 0 | x | Q(t) | 1 | 0 | 0 | 1 | 1 | 1 | |
|---|---|--------|---|--------|---|---|------|---|---|---|---|---|---|--|
| Ck | D | Q(t+1) | | | | | | | | | | | | |
| 0 | x | Q(t) | | | | | | | | | | | | |
| 1 | 0 | 0 | | | | | | | | | | | | |
| 1 | 1 | 1 | | | | | | | | | | | | |

6.4



| CLK | D | Q | Q' |
|-----|---|---|----|
| 1 | 1 | 1 | 0 |
| 1 | 0 | 0 | 1 |
| 0 | 1 | 0 | 0 |
| 0 | 0 | 0 | 0 |

Durumun
kaydedilmesidir

D-latch ile aynı CLK truth table

D flip flopu D-latch'ten farklı saat yuvaları
kaydedilmesidir

