**MODUL 3**

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**Percobaan 1. Gerbang AND**

1. Tabel kebenaran

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| SW 1 | SW 2 | L1 | L2 | L3 |
| 0 | 0 | 0 | 0 | 0 |
| 1 | 0 | 1 | 0 | 0 |
| 0 | 1 | 0 | 1 | 0 |
| 1 | 1 | 1 | 1 | 1 |

1. Diagram waktu

|  |  |  |  |
| --- | --- | --- | --- |
|  |  |  |  |
| 0 | 1 | 0 | 1 |
|  |  |  |  |
| 0 | 0 | 1 | 1 |
|  |  |  |  |
| 0 | 0 | 0 | 1 |

L1

L2

L3

**Percobaan 2. Gerbang OR**

1. Tabel kebenaran

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| SW 1 | SW 2 | L1 | L2 | L3 |
| 0 | 0 | 0 | 0 | 0 |
| 1 | 0 | 1 | 0 | 1 |
| 0 | 1 | 0 | 1 | 1 |
| 1 | 1 | 1 | 1 | 1 |

1. Diagram Waktu

|  |  |  |  |
| --- | --- | --- | --- |
|  |  |  |  |
| 0 | 1 | 0 | 1 |
|  |  |  |  |
| 0 | 0 | 1 | 1 |
|  |  |  |  |
| 0 | 1 | 1 | 1 |

L1

L2

L3

**Percobaan 3. Gerbang NOT**

1. Tabel kebenaran

|  |  |  |
| --- | --- | --- |
| SW1 | L2 | L1 |
| 0 | 0 | 1 |
| 1 | 1 | 0 |

1. Diagram waktu

|  |  |
| --- | --- |
|  |  |
| 0 | 1 |
|  |  |
| 1 | 0 |

L2

L1

**Percobaan 4. Gerbang NAND**

1. Tabel kebenaran

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| SW 1 | SW 2 | L1 | L2 | L3 |
| 0 | 0 | 0 | 0 | 1 |
| 1 | 0 | 1 | 0 | 1 |
| 0 | 1 | 0 | 1 | 1 |
| 1 | 1 | 1 | 1 | 0 |

1. Diagram waktu

|  |  |  |  |
| --- | --- | --- | --- |
|  |  |  |  |
| 0 | 1 | 0 | 1 |
|  |  |  |  |
| 0 | 0 | 1 | 1 |
|  |  |  |  |
| 0 | 0 | 0 | 1 |

L1

L2

L3

**Percobaan 5. Gerbang NOR**

1. Tabel kebenaran

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| SW 1 | SW 2 | L1 | L2 | L3 |
| 0 | 0 | 0 | 0 | 1 |
| 1 | 0 | 1 | 0 | 0 |
| 0 | 1 | 0 | 1 | 0 |
| 1 | 1 | 1 | 1 | 0 |

1. Diagram waktu

|  |  |  |  |
| --- | --- | --- | --- |
|  |  |  |  |
| 0 | 1 | 0 | 1 |
|  |  |  |  |
| 0 | 0 | 1 | 1 |
|  |  |  |  |
| 1 | 0 | 0 | 0 |

L1

L2

L3

**Percobaan 6. Gerbang XOR**

1. Tabel kebenaran

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| SW 1 | SW 2 | L1 | L2 | L3 |
| 0 | 0 | 0 | 0 | 0 |
| 1 | 0 | 1 | 0 | 1 |
| 0 | 1 | 0 | 1 | 1 |
| 1 | 1 | 1 | 1 | 0 |

1. Diagram waktu

|  |  |  |  |
| --- | --- | --- | --- |
|  |  |  |  |
| 0 | 1 | 0 | 1 |
|  |  |  |  |
| 0 | 0 | 1 | 1 |
|  |  |  |  |
| 0 | 1 | 1 | 0 |

L1

L2

L3

**Percobaan 7. Gerbang XNOR/4077**

1. Tabel kebenaran

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| SW 1 | SW 2 | L1 | L2 | L3 |
| 0 | 0 | 0 | 0 | 1 |
| 1 | 0 | 1 | 0 | 0 |
| 0 | 1 | 0 | 1 | 0 |
| 1 | 1 | 1 | 1 | 1 |

1. Diagram waktu

|  |  |  |  |
| --- | --- | --- | --- |
|  |  |  |  |
| 0 | 1 | 0 | 1 |
|  |  |  |  |
| 0 | 0 | 1 | 1 |
|  |  |  |  |
| 1 | 0 | 0 | 1 |

L1

L2

L3