Student Names: Emilcan ARICAN, M. Mustafa KÜÇÜK

Section:2 Group ID:21

CMPE 240 Experiment 3 Preliminary Work

Truth Table:

| # | Α | В | С | D | Ε | Alarm |
|----|---|---|---|---|---|-------|
| 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1 | 0 | 0 | 0 | 0 | 1 | 0 |
| 2 | 0 | 0 | 0 | 1 | 0 | 1 |
| 3 | 0 | 0 | 0 | 1 | 1 | 1 |
| 4 | 0 | 0 | 1 | 0 | 0 | 0 |
| 5 | 0 | 0 | 1 | 0 | 1 | 0 |
| 6 | 0 | 0 | 1 | 1 | 0 | 1 |
| 7 | 0 | 0 | 1 | 1 | 1 | 0 |
| 8 | 0 | 1 | 0 | 0 | 0 | 0 |
| 9 | 0 | 1 | 0 | 0 | 1 | 1 |
| 10 | 0 | 1 | 0 | 1 | 0 | 0 |
| 11 | 0 | 1 | 0 | 1 | 1 | 0 |
| 12 | 0 | 1 | 1 | 0 | 0 | 0 |
| 13 | 0 | 1 | 1 | 0 | 1 | 1 |
| 14 | 0 | 1 | 1 | 1 | 0 | 0 |
| 15 | 0 | 1 | 1 | 1 | 1 | 0 |
| 16 | 1 | 0 | 0 | 0 | 0 | 1 |
| 17 | 1 | 0 | 0 | 0 | 1 | 0 |
| 18 | 1 | 0 | 0 | 1 | 0 | 1 |
| 19 | 1 | 0 | 0 | 1 | 1 | 1 |
| 20 | 1 | 0 | 1 | 0 | 0 | 0 |
| 21 | 1 | 0 | 1 | 0 | 1 | 1 |
| 22 | 1 | 0 | 1 | 1 | 0 | 0 |
| 23 | 1 | 0 | 1 | 1 | 1 | 0 |
| 24 | 1 | 1 | 0 | 0 | 0 | 1 |
| 25 | 1 | 1 | 0 | 0 | 1 | 1 |
| 26 | 1 | 1 | 0 | 1 | 0 | 0 |
| 27 | 1 | 1 | 0 | 1 | 1 | 0 |
| 28 | 1 | 1 | 1 | 0 | 0 | 1 |

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| 29 | 1 | 1 | 1 | 0 | 1 | 1 |
|----|---|---|---|---|---|---|
| 30 | 1 | 1 | 1 | 1 | 0 | 0 |
| 31 | 1 | 1 | 1 | 1 | 1 | 1 |

List of components used in the design:

- 1. 8-Input Multiplexer
- 2. 2 to 4 Line Decoder
- 3. Not Gate

Circuit:

