**Báo cáo bài thực hành tuần 13**

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Truth table:

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| D | C | B | A | a | b | c | d | e | f | g |
| 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 |
| 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 |
| 0 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 |
| 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 |
| 0 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 |
| 0 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 |
| 0 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 |
| 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 |
| 1 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 |
| 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 1 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 |
| 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 |
| 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 |

Output function:

a

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  |  | B’A’ | B’A | BA’ | BA |
|  |  | 00 | 01 | 10 | 11 |
| D’C’ | 00 | 1 | 0 | 1 | 1 |
| D’C | 01 | 0 | 1 | 1 | 1 |
| DC’ | 10 | 1 | 1 | 0 | 0 |
| DC | 11 | 0 | 1 | 1 | 1 |

a = BD’ + BC + AC + A’B’C’ + B’C’D

b

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  |  | B’A’ | B’A | BA’ | BA |
|  |  | 00 | 01 | 10 | 11 |
| D’C’ | 00 | 1 | 1 | 1 | 1 |
| D’C | 01 | 1 | 0 | 0 | 1 |
| DC’ | 10 | 1 | 1 | 0 | 0 |
| DC | 11 | 1 | 1 | 1 | 0 |

b = A'B' + C'D' + B'D + A'CD + ABD'

c

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  |  | B’A’ | B’A | BA’ | BA |
|  |  | 00 | 01 | 10 | 11 |
| D’C’ | 00 | 1 | 1 | 0 | 1 |
| D’C | 01 | 1 | 1 | 1 | 1 |
| DC’ | 10 | 1 | 1 | 0 | 0 |
| DC | 11 | 1 | 1 | 1 | 1 |

c = B' + C + AD’

d

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  |  | B’A’ | B’A | BA’ | BA |
|  |  | 00 | 01 | 10 | 11 |
| D’C’ | 00 | 1 | 0 | 1 | 1 |
| D’C | 01 | 0 | 1 | 1 | 0 |
| DC’ | 10 | 1 | 1 | 0 | 0 |
| DC | 11 | 0 | 0 | 1 | 1 |

d = A'B'C' + B'C'D + A'BD' + BC'D' + BCD + AB'CD'

e

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  |  | B’A’ | B’A | BA’ | BA |
|  |  | 00 | 01 | 10 | 11 |
| D’C’ | 00 | 1 | 0 | 1 | 0 |
| D’C | 01 | 0 | 0 | 1 | 0 |
| DC’ | 10 | 1 | 0 | 0 | 0 |
| DC | 11 | 0 | 0 | 1 | 1 |

e = A'B'C' + A'BD' + BCD

f

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  |  | B’A’ | B’A | BA’ | BA |
|  |  | 00 | 01 | 10 | 11 |
| D’C’ | 00 | 1 | 0 | 0 | 0 |
| D’C | 01 | 1 | 1 | 1 | 0 |
| DC’ | 10 | 1 | 1 | 0 | 0 |
| DC | 11 | 1 | 0 | 1 | 1 |

f = A'B' + A'C + B'C'D + B'CD' + BCD

g

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  |  | B’A’ | B’A | BA’ | BA |
|  |  | 00 | 01 | 10 | 11 |
| D’C’ | 00 | 0 | 0 | 1 | 1 |
| D’C | 01 | 1 | 1 | 1 | 0 |
| DC’ | 10 | 1 | 1 | 1 | 1 |
| DC | 11 | 1 | 0 | 1 | 1 |

g = C'D + A'C + BC' + BD + B'CD'