Assignment 7

Rajesh Kumar Rajoriya

January 9, 2021

1   The Boolean Expression For "e"

$$e = A.\overline{B}.\overline{C}.\overline{D} + A.B.\overline{C}.\overline{D} + \overline{A}.\overline{B}.C.\overline{D} + A.\overline{B}.C\overline{D} + A.B.C.\overline{D} + A.\overline{B}.\overline{C}.D$$

2   K-map Expression (simplified)

after simplifying the above boolean expression using k-maps it looks like this

$$e = A.\overline{B} + A.\overline{D} + \overline{B}.C$$
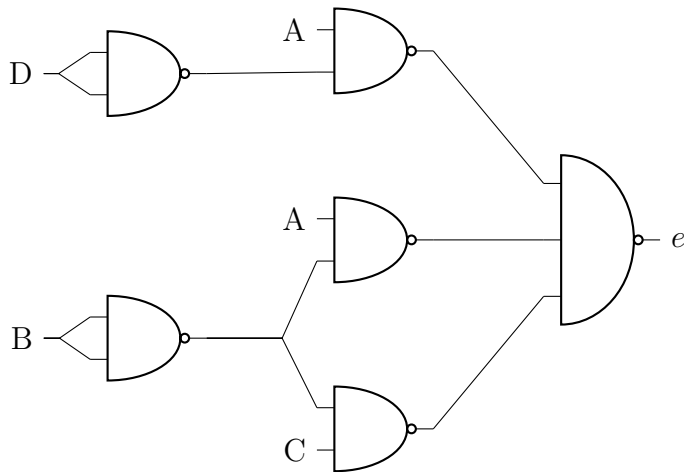
2.1   The Combinational Circuit Using only NAND GATES

Figure 1: Circuit diagram using only nand gates