

Assignment 7

SASHANK REDDY

6 JANUARY 2021

1 Boolean Expression

The Boolean expression of $e = A\bar{D} + \bar{B}C\bar{D} + A\bar{C}\bar{B}$

2 Kmap Expression

$$e = A\bar{D} + \bar{B}C\bar{D} + A\bar{C}\bar{B}$$

Now, we have to make this expression in product form So, we will use the property $\overline{\overline{X}} = X$

$$e = A\bar{D} + \bar{B}C\bar{D} + A\bar{C}\bar{B}$$

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

$$\bar{e} = \overline{(\overline{A\bar{D}}).(\overline{\bar{B}C\bar{D}}).(\overline{A\bar{C}\bar{B}})} \dots \dots \text{by Using } (\overline{X+Y+Z} = \bar{X}.\bar{Y}.\bar{Z})$$

2.1 COMBINATIONAL CIRCUIT

