# ASSIGNMENT NO. 8

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## 1 The Boolean Expression For e

$$e = A.\overline{B}.\overline{C}.\overline{D} + A.B.\overline{C}.\overline{D} + \overline{A}.\overline{B}.C.\overline{D} + A.\overline{B}.C\overline{D} + A.B.C.\overline{D} + A.\overline{B}.\overline{C}.D$$
 (1)

## 2 K-Map

Realisation using k-map when its POS.

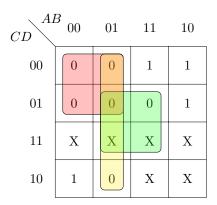


Figure 1: K-Map for e under given don't care condition.

#### 3 Simplified expression

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