BRAC UNIVERSITY
Inspiring Excellence

CSE260: Digital Logic Design
Summer 2025
Quiz - 02
Duration: 25 minutes

A

Name: Solution	ID:	Section:

1.CO2	Convert the Boolean function to its Canonical SOP form. F(A,B,C) = (B'+C)'.(AC+B)+A'	5
2.CO2	F(A,B,C,D)=Σ(0,1,2,5,6,7,8,9,10,13) a. Use Karnaugh Map to find the simplified expression. b. Implement the simplified expression using only NAND gates	10

1) $F = (B'+C)' \cdot (AC+B)+A)$

$= B \cdot C' (AC+B)+A)$

$= ABC \cdot C' + BC' + A)$

$= BC' + A)$

$= BC'(A+A') + A'(B+B')(C+C')$

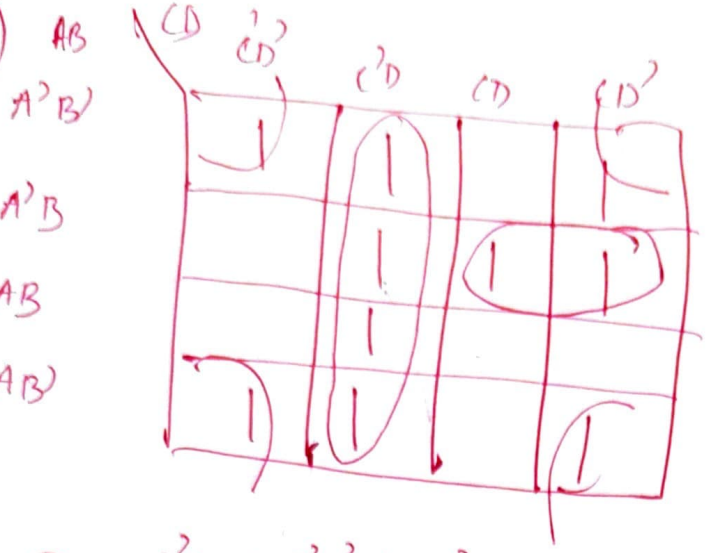
$= ABC' + A'BC' + (A'B + A'B')(C+C')$

$= ABC' + A'BC' + A'BC + A'BC' + AB'C + AB'C'$

$= 110, 010, 011, 001, 101, 100$

$= \Sigma (6, 2, 3, 5, 4)$

2) AB



$F = C'D + B'D' + A'BC$