

DAY: _____

DATE: _____

Mid-Lab

Name:

M. Aftab Akram

Reg no:

FA24-BSE - 060

06

15

Question No. 1

$$X = \bar{A} \cdot \bar{B} \cdot C + (\bar{A} + B)$$

Truth Table and IC Diagram

| A | B | C | \bar{A} | \bar{B} | $\bar{A} \cdot \bar{B} \cdot C$ | $A+B$ | $(\bar{A} + B)$ | $\bar{A} \cdot \bar{B} \cdot C + (\bar{A} + B)$ |
|---|---|---|-----------|-----------|---------------------------------|-------|-----------------|---|
| 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 |
| 0 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 |
| 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 0 |
| 0 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 0 |
| 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 |
| 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 |
| 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| 1 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 0 |

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I.C. Diagram

$$X = \bar{A} \cdot \bar{B} \cdot C + (\bar{A} + B)$$

