

Question. No:1

$$AC + (A + B'C)(AC + B)$$

Converting to standard SOP

$$AC + AAC + AB + AB'CC + BB'C$$

$$AC + AC + AB + AB'C$$

$$AC + AB + AB'C$$

$$ABC + AB'C + ABC + ABC' + AB'C$$

$$\boxed{ABC + AB'C + ABC'}$$

↓ standard SOP Form

Converting to standard POS

$$ABC + AB'C + ABC'$$

111

101

110

A	B	C
0	0	0
0	0	1
0	1	0
0	1	1
1	0	0
1	0	1
1	1	0
1	1	1

from truth table

$$\boxed{(A+B+C) (A+B+C') (A+B'+C) (A+B'+C') (A'+B+C)}$$

↓ standard POS form

Question no: 2
for SOP
from the truth table

$$A'B'C + A'BC + A'B'C$$

Simplification

	$\overline{B}\overline{C}$	$\overline{B}C$	BC	$B\overline{C}$
\overline{A}		1	1	
A		1		

$$\overline{A}C + \overline{B}C$$

for POS:-

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

Simplification

	$\bar{B}\bar{C}$	$\bar{B}C$	BC	$B\bar{C}$
\bar{A}	0			0
A	0		0	0

(C) $(A+B)$