

Question 1: Which expression corresponds to the given truth table?

Truth Table:

A	B	C	D	E	F
0	0	0	0	0	0
0	0	0	0	0	1
0	0	0	0	1	0
0	0	0	0	1	1
0	0	0	1	0	0
0	0	0	1	0	1
0	0	0	1	1	0
0	0	0	1	1	1
0	0	1	0	0	0
0	0	1	0	0	1
0	0	1	0	1	0
0	0	1	0	1	1
0	0	1	1	0	0
0	0	1	1	0	1
0	0	1	1	1	0
0	0	1	1	1	1
0	1	0	0	0	0
0	1	0	0	0	1
0	1	0	0	1	0
0	1	0	0	1	1
0	1	0	1	0	0
0	1	0	1	0	1
0	1	0	1	1	0
0	1	0	1	1	1
0	1	1	0	0	0
0	1	1	0	0	1
0	1	1	0	1	0
0	1	1	0	1	1
0	1	1	1	0	0
0	1	1	1	0	1
0	1	1	1	1	0
0	1	1	1	1	1
1	0	0	0	0	0
1	0	0	0	0	1
1	0	0	0	1	0
1	0	0	0	1	1
1	0	0	1	0	0
1	0	0	1	0	1
1	0	0	1	1	0
1	0	0	1	1	1
1	0	1	0	0	0
1	0	1	0	0	1
1	0	1	0	1	0
1	0	1	0	1	1
1	0	1	1	0	0
1	0	1	1	0	1
1	0	1	1	1	0
1	0	1	1	1	1
1	1	0	0	0	0
1	1	0	0	0	1
1	1	0	0	1	0
1	1	0	0	1	1
1	1	0	1	0	0
1	1	0	1	0	1
1	1	0	1	1	0
1	1	0	1	1	1
1	1	1	0	0	0
1	1	1	0	0	1
1	1	1	0	1	0
1	1	1	0	1	1
1	1	1	1	0	0
1	1	1	1	0	1
1	1	1	1	1	0
1	1	1	1	1	1

Option 1: not (A and B or C) and D and not E

Option 2: A and not (B or C or D) and E

Option 3: not A or (B and C or D and not E)

Option 4: A and B and not (C or D) and E

Correct Answer: not A or (B and C or D and not E)

Question 2: Which expression corresponds to the given truth table?

Truth Table:

A	B	C	D	E	F
0	0	0	0	0	0
0	0	0	0	0	1
0	0	0	0	1	0
0	0	0	0	1	1
0	0	0	1	0	0
0	0	0	1	0	1
0	0	0	1	1	0
0	0	0	1	1	1
0	0	1	0	0	0
0	0	1	0	0	1
0	0	1	0	1	0
0	0	1	0	1	1
0	0	1	1	0	0
0	0	1	1	0	1
0	0	1	1	1	0
0	0	1	1	1	1
0	1	0	0	0	0
0	1	0	0	0	1
0	1	0	0	1	0
0	1	0	0	1	1
0	1	0	1	0	0
0	1	0	1	0	1
0	1	0	1	1	0
0	1	0	1	1	1
0	1	1	0	0	0
0	1	1	0	0	1
0	1	1	0	1	0
0	1	1	0	1	1
0	1	1	1	0	0
0	1	1	1	0	1
0	1	1	1	1	0
0	1	1	1	1	1
1	0	0	0	0	0
1	0	0	0	0	1
1	0	0	0	1	0
1	0	0	0	1	1
1	0	0	1	0	0
1	0	0	1	0	1
1	0	0	1	1	0
1	0	0	1	1	1
1	0	1	0	0	0
1	0	1	0	0	1
1	0	1	0	1	0
1	0	1	0	1	1
1	0	1	1	0	0
1	0	1	1	0	1
1	0	1	1	1	0
1	0	1	1	1	1
1	1	0	0	0	0
1	1	0	0	0	1
1	1	0	0	1	0
1	1	0	0	1	1
1	1	0	1	0	0
1	1	0	1	0	1
1	1	0	1	1	0
1	1	0	1	1	1
1	1	1	0	0	0
1	1	1	0	0	1
1	1	1	0	1	0
1	1	1	0	1	1
1	1	1	1	0	0
1	1	1	1	0	1
1	1	1	1	1	0
1	1	1	1	1	1

Option 1: A and B and C and not (D or E)

Option 2: not (A and B) and (C or D or not E)

Option 3: not (A and B or C) and D and not E

Option 4: not (A or B) and (C or D or E)

Correct Answer: A and B and C and not (D or E)

Question 3: Which expression corresponds to the given truth table?

Truth Table:

A	B	C	D	E	F
0	0	0	0	0	0
0	0	0	1	0	0
0	0	0	0	1	0
0	0	1	0	0	0
0	0	1	0	1	0
0	0	1	1	0	0
0	0	1	1	1	0
0	1	0	0	0	0
0	1	0	0	1	0
0	1	0	1	0	0
0	1	0	1	1	0
0	1	1	0	0	0
0	1	1	0	1	0
0	1	1	1	0	0
0	1	1	1	1	0
1	0	0	0	0	0
1	0	0	0	1	0
1	0	0	1	0	0
1	0	0	1	1	0
1	0	1	0	0	0
1	0	1	0	1	0
1	0	1	1	0	0
1	0	1	1	1	0
1	1	0	0	0	0
1	1	0	0	1	0
1	1	0	1	0	0
1	1	0	1	1	0
1	1	1	0	0	0
1	1	1	0	1	0
1	1	1	1	0	0
1	1	1	1	1	0

Option 1: not (A and B or C) and (D or not E)

Option 2: A and B and not (C or D) and E

Option 3: not (A or B) and (C and not D or E)

Option 4: not (A or B) and (C and not D or E)

Correct Answer: not (A or B) and (C and not D or E)

Question 4: Which expression corresponds to the given truth table?

Truth Table:

A	B	C	D	E	F
0	0	0	0	0	0
0	0	0	0	0	1
0	0	0	0	1	0
0	0	0	0	1	1
0	0	0	1	0	0
0	0	0	1	0	1
0	0	0	1	1	0
0	0	0	1	1	1
0	0	1	0	0	0
0	0	1	0	0	1
0	0	1	0	1	0
0	0	1	0	1	1
0	0	1	1	0	0
0	0	1	1	0	1
0	0	1	1	1	0
0	0	1	1	1	1
0	1	0	0	0	0
0	1	0	0	0	1
0	1	0	0	1	0
0	1	0	0	1	1
0	1	0	1	0	0
0	1	0	1	0	1
0	1	0	1	1	0
0	1	0	1	1	1
0	1	1	0	0	0
0	1	1	0	0	1
0	1	1	0	1	0
0	1	1	0	1	1
0	1	1	1	0	0
0	1	1	1	0	1
0	1	1	1	1	0
0	1	1	1	1	1
1	0	0	0	0	0
1	0	0	0	0	1
1	0	0	0	1	0
1	0	0	0	1	1
1	0	0	1	0	0
1	0	0	1	0	1
1	0	0	1	1	0
1	0	0	1	1	1
1	0	1	0	0	0
1	0	1	0	0	1
1	0	1	0	1	0
1	0	1	0	1	1
1	0	1	1	0	0
1	0	1	1	0	1
1	0	1	1	1	0
1	0	1	1	1	1
1	1	0	0	0	0
1	1	0	0	0	1
1	1	0	0	1	0
1	1	0	0	1	1
1	1	0	1	0	0
1	1	0	1	0	1
1	1	0	1	1	0
1	1	0	1	1	1
1	1	1	0	0	0
1	1	1	0	0	1
1	1	1	0	1	0
1	1	1	0	1	1
1	1	1	1	0	0
1	1	1	1	0	1
1	1	1	1	1	0
1	1	1	1	1	1

Option 1:  $A \text{ and not } (B \text{ or } C \text{ and } D \text{ or } E)$

Option 2:  $A \text{ or } (B \text{ and not } C) \text{ and } (D \text{ and not } E)$

Option 3:  $A \text{ and } B \text{ and not } (C \text{ or } D) \text{ and } E$

Option 4:  $A \text{ and } (B \text{ or } C \text{ and } D) \text{ and not } E$

Correct Answer:  $A \text{ and not } (B \text{ or } C \text{ and } D \text{ or } E)$



Question 5: Which expression corresponds to the given truth table?

Truth Table:

A	B	C	D	E	F
0	0	0	0	0	0
0	0	0	0	0	1
0	0	0	0	1	0
0	0	0	0	1	1
0	0	0	1	0	0
0	0	0	1	0	1
0	0	0	1	1	0
0	0	0	1	1	1
0	0	1	0	0	0
0	0	1	0	0	1
0	0	1	0	1	0
0	0	1	0	1	1
0	0	1	1	0	0
0	0	1	1	0	1
0	0	1	1	1	0
0	0	1	1	1	1
0	1	0	0	0	0
0	1	0	0	0	1
0	1	0	0	1	0
0	1	0	0	1	1
0	1	0	1	0	0
0	1	0	1	0	1
0	1	0	1	1	0
0	1	0	1	1	1
0	1	1	0	0	0
0	1	1	0	0	1
0	1	1	0	1	0
0	1	1	0	1	1
0	1	1	1	0	0
0	1	1	1	0	1
0	1	1	1	1	0
0	1	1	1	1	1
1	0	0	0	0	0
1	0	0	0	0	1
1	0	0	0	1	0
1	0	0	0	1	1
1	0	0	1	0	0
1	0	0	1	0	1
1	0	0	1	1	0
1	0	0	1	1	1
1	0	1	0	0	0
1	0	1	0	0	1
1	0	1	0	1	0
1	0	1	0	1	1
1	0	1	1	0	0
1	0	1	1	0	1
1	0	1	1	1	0
1	0	1	1	1	1
1	1	0	0	0	0
1	1	0	0	0	1
1	1	0	0	1	0
1	1	0	0	1	1
1	1	0	1	0	0
1	1	0	1	0	1
1	1	0	1	1	0
1	1	0	1	1	1
1	1	1	0	0	0
1	1	1	0	0	1
1	1	1	0	1	0
1	1	1	0	1	1
1	1	1	1	0	0
1	1	1	1	0	1
1	1	1	1	1	0
1	1	1	1	1	1

Option 1: A and (B or C and D) and not E

Option 2: not (A and B) or C and D and E

Option 3: not (A and B) or C and (D or E)

Option 4: not (A and B) and (C or D or not E)

Correct Answer: A and (B or C and D) and not E

Question 6: Which expression corresponds to the given truth table?

Truth Table:

A	B	C	D	E	F
0	0	0	0	0	0
0	0	0	1	0	0
0	0	0	1	1	0
0	0	1	0	0	0
0	0	1	0	1	0
0	0	1	1	0	0
0	0	1	1	1	0
0	1	0	0	0	0
0	1	0	0	1	0
0	1	0	1	0	0
0	1	0	1	1	0
0	1	1	0	0	0
0	1	1	0	1	0
0	1	1	1	0	0
0	1	1	1	1	0
1	0	0	0	0	0
1	0	0	0	1	0
1	0	0	1	0	0
1	0	0	1	1	0
1	0	1	0	0	0
1	0	1	0	1	0
1	0	1	1	0	0
1	0	1	1	1	0
1	1	0	0	0	0
1	1	0	0	1	0
1	1	0	1	0	0
1	1	0	1	1	0
1	1	1	0	0	0
1	1	1	0	1	0
1	1	1	1	0	0
1	1	1	1	1	0

Option 1: not (A and B or C) and D and not E

Option 2: not (A and B) or C and D and E

Option 3: not (A or B) and (C or D or E)

Option 4: A and not (B and C) and (D or E)

Correct Answer: not (A and B or C) and D and not E

Question 7: Which expression corresponds to the given truth table?

Truth Table:

A	B	C	D	E	F
0	0	0	0	0	0
0	0	0	0	0	1
0	0	0	0	1	0
0	0	0	0	1	1
0	0	0	1	0	0
0	0	0	1	0	1
0	0	0	1	1	0
0	0	0	1	1	1
0	0	1	0	0	0
0	0	1	0	0	1
0	0	1	0	1	0
0	0	1	0	1	1
0	0	1	1	0	0
0	0	1	1	0	1
0	0	1	1	1	0
0	0	1	1	1	1
0	1	0	0	0	0
0	1	0	0	0	1
0	1	0	0	1	0
0	1	0	0	1	1
0	1	0	1	0	0
0	1	0	1	0	1
0	1	0	1	1	0
0	1	0	1	1	1
0	1	1	0	0	0
0	1	1	0	0	1
0	1	1	0	1	0
0	1	1	0	1	1
0	1	1	1	0	0
0	1	1	1	0	1
0	1	1	1	1	0
0	1	1	1	1	1
1	0	0	0	0	0
1	0	0	0	0	1
1	0	0	0	1	0
1	0	0	0	1	1
1	0	0	1	0	0
1	0	0	1	0	1
1	0	0	1	1	0
1	0	0	1	1	1
1	0	1	0	0	0
1	0	1	0	0	1
1	0	1	0	1	0
1	0	1	0	1	1
1	0	1	1	0	0
1	0	1	1	0	1
1	0	1	1	1	0
1	0	1	1	1	1
1	1	0	0	0	0
1	1	0	0	0	1
1	1	0	0	1	0
1	1	0	0	1	1
1	1	0	1	0	0
1	1	0	1	0	1
1	1	0	1	1	0
1	1	0	1	1	1
1	1	1	0	0	0
1	1	1	0	0	1
1	1	1	0	1	0
1	1	1	0	1	1
1	1	1	1	0	0
1	1	1	1	0	1
1	1	1	1	1	0
1	1	1	1	1	1

Option 1: A and not (B or C or D) and E

Option 2: not (A and B or C) and D and not E

Option 3: A and not (B or C or D) and E

Option 4: A and B and not (C or D) and E

Correct Answer: A and not (B or C or D) and E

Question 8: Which expression corresponds to the given truth table?

Truth Table:

A	B	C	D	E	F
0	0	0	0	0	0
0	0	0	1	0	0
0	0	0	1	1	0
0	0	1	0	0	0
0	0	1	0	1	0
0	0	1	1	0	0
0	0	1	1	1	0
0	1	0	0	0	0
0	1	0	0	1	0
0	1	0	1	0	0
0	1	0	1	1	0
0	1	1	0	0	0
0	1	1	0	1	0
0	1	1	1	0	0
0	1	1	1	1	0
1	0	0	0	0	0
1	0	0	0	1	0
1	0	0	1	0	0
1	0	0	1	1	0
1	0	1	0	0	0
1	0	1	0	1	0
1	0	1	1	0	0
1	0	1	1	1	0
1	1	0	0	0	0
1	1	0	0	1	0
1	1	0	1	0	0
1	1	0	1	1	0
1	1	1	0	0	0
1	1	1	0	1	0
1	1	1	1	0	0
1	1	1	1	1	0

Option 1:  $A \text{ and not } (B \text{ or } C \text{ and } D \text{ or } E)$

Option 2:  $A \text{ or } (B \text{ and not } (C \text{ and } D)) \text{ and } E$

Option 3:  $\text{not } (A \text{ and } B) \text{ or } C \text{ and } D \text{ and } E$

Option 4:  $\text{not } (A \text{ or } B) \text{ and } (C \text{ and not } D \text{ or } E)$

Correct Answer:  $\text{not } (A \text{ or } B) \text{ and } (C \text{ and not } D \text{ or } E)$



Question 9: Which expression corresponds to the given truth table?

Truth Table:

A	B	C	D	E	F
0	0	0	0	0	0
0	0	0	0	0	1
0	0	0	0	1	0
0	0	0	0	1	1
0	0	0	1	0	0
0	0	0	1	0	1
0	0	0	1	1	0
0	0	0	1	1	1
0	0	1	0	0	0
0	0	1	0	0	1
0	0	1	0	1	0
0	0	1	0	1	1
0	0	1	1	0	0
0	0	1	1	0	1
0	0	1	1	1	0
0	0	1	1	1	1
0	1	0	0	0	0
0	1	0	0	0	1
0	1	0	0	1	0
0	1	0	0	1	1
0	1	0	1	0	0
0	1	0	1	0	1
0	1	0	1	1	0
0	1	0	1	1	1
0	1	1	0	0	0
0	1	1	0	0	1
0	1	1	0	1	0
0	1	1	0	1	1
0	1	1	1	0	0
0	1	1	1	0	1
0	1	1	1	1	0
0	1	1	1	1	1
1	0	0	0	0	0
1	0	0	0	0	1
1	0	0	0	1	0
1	0	0	0	1	1
1	0	0	1	0	0
1	0	0	1	0	1
1	0	0	1	1	0
1	0	0	1	1	1
1	0	1	0	0	0
1	0	1	0	0	1
1	0	1	0	1	0
1	0	1	0	1	1
1	0	1	1	0	0
1	0	1	1	0	1
1	0	1	1	1	0
1	0	1	1	1	1
1	1	0	0	0	0
1	1	0	0	0	1
1	1	0	0	1	0
1	1	0	0	1	1
1	1	0	1	0	0
1	1	0	1	0	1
1	1	0	1	1	0
1	1	0	1	1	1
1	1	1	0	0	0
1	1	1	0	0	1
1	1	1	0	1	0
1	1	1	0	1	1
1	1	1	1	0	0
1	1	1	1	0	1
1	1	1	1	1	0
1	1	1	1	1	1

Option 1:  $A \text{ and } B \text{ and } C \text{ and not } (D \text{ or } E)$

Option 2:  $A \text{ and not } (B \text{ or } C \text{ and } D \text{ or } E)$

Option 3:  $\text{not } (A \text{ and } B \text{ or } C) \text{ and } (D \text{ or not } E)$

Option 4:  $\text{not } (A \text{ and } B) \text{ or } C \text{ and } D \text{ and } E$

Correct Answer:  $A \text{ and not } (B \text{ or } C \text{ and } D \text{ or } E)$

Question 10: Which expression corresponds to the given truth table?

Truth Table:

A	B	C	D	E	F
0	0	0	0	0	0
0	0	0	0	0	1
0	0	0	0	1	0
0	0	0	0	1	1
0	0	0	1	0	0
0	0	0	1	0	1
0	0	0	1	1	0
0	0	0	1	1	1
0	0	1	0	0	0
0	0	1	0	0	1
0	0	1	0	1	0
0	0	1	0	1	1
0	0	1	1	0	0
0	0	1	1	0	1
0	0	1	1	1	0
0	0	1	1	1	1
0	1	0	0	0	0
0	1	0	0	0	1
0	1	0	0	1	0
0	1	0	0	1	1
0	1	0	1	0	0
0	1	0	1	0	1
0	1	0	1	1	0
0	1	0	1	1	1
0	1	1	0	0	0
0	1	1	0	0	1
0	1	1	0	1	0
0	1	1	0	1	1
0	1	1	1	0	0
0	1	1	1	0	1
0	1	1	1	1	0
0	1	1	1	1	1
1	0	0	0	0	0
1	0	0	0	0	1
1	0	0	0	1	0
1	0	0	0	1	1
1	0	0	1	0	0
1	0	0	1	0	1
1	0	0	1	1	0
1	0	0	1	1	1
1	0	1	0	0	0
1	0	1	0	0	1
1	0	1	0	1	0
1	0	1	0	1	1
1	0	1	1	0	0
1	0	1	1	0	1
1	0	1	1	1	0
1	0	1	1	1	1
1	1	0	0	0	0
1	1	0	0	0	1
1	1	0	0	1	0
1	1	0	0	1	1
1	1	0	1	0	0
1	1	0	1	0	1
1	1	0	1	1	0
1	1	0	1	1	1
1	1	1	0	0	0
1	1	1	0	0	1
1	1	1	0	1	0
1	1	1	0	1	1
1	1	1	1	0	0
1	1	1	1	0	1
1	1	1	1	1	0
1	1	1	1	1	1

Option 1:  $A \text{ and not } (B \text{ or } C) \text{ or } (D \text{ and } E)$

Option 2:  $A \text{ and } (B \text{ or not } C) \text{ and } (D \text{ and not } E)$

Option 3:  $\text{not } (A \text{ and } B) \text{ or } C \text{ and } D \text{ and } E$

Option 4:  $\text{not } A \text{ or } (B \text{ and } C \text{ or } D \text{ and not } E)$

Correct Answer:  $A \text{ and } (B \text{ or not } C) \text{ and } (D \text{ and not } E)$

Question 11: Which expression corresponds to the given truth table?

Truth Table:

A	B	C	D	E	F
0	0	0	0	0	0
0	0	0	0	0	1
0	0	0	0	1	0
0	0	0	0	1	1
0	0	0	1	0	0
0	0	0	1	0	1
0	0	0	1	1	0
0	0	0	1	1	1
0	0	1	0	0	0
0	0	1	0	0	1
0	0	1	0	1	0
0	0	1	0	1	1
0	0	1	1	0	0
0	0	1	1	0	1
0	0	1	1	1	0
0	0	1	1	1	1
0	1	0	0	0	0
0	1	0	0	0	1
0	1	0	0	1	0
0	1	0	0	1	1
0	1	0	1	0	0
0	1	0	1	0	1
0	1	0	1	1	0
0	1	0	1	1	1
0	1	1	0	0	0
0	1	1	0	0	1
0	1	1	0	1	0
0	1	1	0	1	1
0	1	1	1	0	0
0	1	1	1	0	1
0	1	1	1	1	0
0	1	1	1	1	1
1	0	0	0	0	0
1	0	0	0	0	1
1	0	0	0	1	0
1	0	0	0	1	1
1	0	0	1	0	0
1	0	0	1	0	1
1	0	0	1	1	0
1	0	0	1	1	1
1	0	1	0	0	0
1	0	1	0	0	1
1	0	1	0	1	0
1	0	1	0	1	1
1	0	1	1	0	0
1	0	1	1	0	1
1	0	1	1	1	0
1	0	1	1	1	1
1	1	0	0	0	0
1	1	0	0	0	1
1	1	0	0	1	0
1	1	0	0	1	1
1	1	0	1	0	0
1	1	0	1	0	1
1	1	0	1	1	0
1	1	0	1	1	1
1	1	1	0	0	0
1	1	1	0	0	1
1	1	1	0	1	0
1	1	1	0	1	1
1	1	1	1	0	0
1	1	1	1	0	1
1	1	1	1	1	0
1	1	1	1	1	1

Option 1:  $A \text{ and } B \text{ and not } (C \text{ or } D) \text{ and } E$

Option 2:  $A \text{ or } (B \text{ and not } C) \text{ and } (D \text{ and not } E)$

Option 3:  $A \text{ and not } (B \text{ and } C) \text{ and } (D \text{ or } E)$

Option 4:  $\text{not } (A \text{ or } B \text{ and } C) \text{ or } (D \text{ and not } E)$

Correct Answer:  $A \text{ or } (B \text{ and not } C) \text{ and } (D \text{ and not } E)$

Question 12: Which expression corresponds to the given truth table?

Truth Table:

A	B	C	D	E	F
0	0	0	0	0	0
0	0	0	0	0	1
0	0	0	0	1	0
0	0	0	0	1	1
0	0	0	1	0	0
0	0	0	1	0	1
0	0	0	1	1	0
0	0	0	1	1	1
0	0	1	0	0	0
0	0	1	0	0	1
0	0	1	0	1	0
0	0	1	0	1	1
0	0	1	1	0	0
0	0	1	1	0	1
0	0	1	1	1	0
0	0	1	1	1	1
0	1	0	0	0	0
0	1	0	0	0	1
0	1	0	0	1	0
0	1	0	0	1	1
0	1	0	1	0	0
0	1	0	1	0	1
0	1	0	1	1	0
0	1	0	1	1	1
0	1	1	0	0	0
0	1	1	0	0	1
0	1	1	0	1	0
0	1	1	0	1	1
0	1	1	1	0	0
0	1	1	1	0	1
0	1	1	1	1	0
0	1	1	1	1	1
1	0	0	0	0	0
1	0	0	0	0	1
1	0	0	0	1	0
1	0	0	0	1	1
1	0	0	1	0	0
1	0	0	1	0	1
1	0	0	1	1	0
1	0	0	1	1	1
1	0	1	0	0	0
1	0	1	0	0	1
1	0	1	0	1	0
1	0	1	0	1	1
1	0	1	1	0	0
1	0	1	1	0	1
1	0	1	1	1	0
1	0	1	1	1	1
1	1	0	0	0	0
1	1	0	0	0	1
1	1	0	0	1	0
1	1	0	0	1	1
1	1	0	1	0	0
1	1	0	1	0	1
1	1	0	1	1	0
1	1	0	1	1	1
1	1	1	0	0	0
1	1	1	0	0	1
1	1	1	0	1	0
1	1	1	0	1	1
1	1	1	1	0	0
1	1	1	1	0	1
1	1	1	1	1	0
1	1	1	1	1	1

Option 1:  $A \text{ and not } (B \text{ or } C \text{ and } D \text{ or } E)$

Option 2:  $\text{not } (A \text{ and } B \text{ or } C) \text{ and } (D \text{ or not } E)$

Option 3:  $\text{not } (A \text{ or } B) \text{ and } (C \text{ or } D \text{ or } E)$

Option 4:  $\text{not } A \text{ or } (B \text{ and } C \text{ or } D \text{ and not } E)$

Correct Answer:  $A \text{ and not } (B \text{ or } C \text{ and } D \text{ or } E)$