Logic Gate Quiz

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

Options

(1) (A) or (B)

(2) (B) and (A)

(3) (A) and (E)

(4) (((A) and (C)) and (not (B))) or (B)

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

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

Options

(1) (((A) and (not (B))) or (not (D))) and (E)

(2) (((E) and (not (E))) and (not (A))) or (not (A))

(3) ((A) or (not (D))) and (not (E))

(4) (((A) and (not (B))) and (not (A))) and (A)

A	B	Q
0	0	0
0	1	0
1	0	0
1	1	0

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

Options

(1) (((C) or (not (E))) or (E)) or (D)

(2) (((E) or (not (A))) or (C)) and (E)

(3) ((A) or (not (C))) and (B)

(4) (((B) or (D)) and (A)) and (not (E))

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

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

Options

(1) ((B) and (C)) or (A)

(2) ((A) or (A)) or (C)

(3) (((D) or (not (A))) and (not (C))) or (C)

(4) ((D) or (not (C))) and (D)

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

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

Options

(1) ((C) and (not (C))) or (not (A))

(2) (C) or (B)

(3) (((E) or (not (E))) or (not (E))) or (not (A))

(4) ((B) or (not (A))) and (A)

A	B	Q
0	0	0
0	1	0
1	0	0
1	1	1

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

Options

(1) (((A) or (not (A))) or (B)) or (not (B))

(2) (C) or (not (A))

(3) (A) and (A)

(4) (((A) and (B)) or (B)) or (not (E))

A	B	Q
0	0	1
0	1	1
1	0	1
1	1	1

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

Options

(1) ((B) and (not (A))) or (E)

(2) (D) and (not (B))

(3) (A) and (not (A))

(4) (E) and (not (A))

A	B	Q
0	0	0
0	1	0
1	0	0
1	1	0

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

Options

(1) (B) or (not (B))

(2) (A) or (B)

(3) ((C) or (not (E))) and (B)

(4) ((E) and (A)) and (D)

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

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

Options

(1) ((B) or (not (B))) or (not (B))

(2) (((E) or (A)) and (B)) and (A)

(3) (((A) or (not (E))) and (C)) and (not (C))

(4) ((A) and (not (C))) and (not (C))

A	B	Q
0	0	1
0	1	1
1	0	1
1	1	1

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

Options

(1) ((A) and (not (A))) and (B)

(2) ((D) and (A)) and (not (D))

(3) (((D) or (not (E))) or (not (D))) and (B)

(4) ((A) and (D)) or (not (C))

A	B	Q
0	0	0
0	1	0
1	0	0
1	1	0

Answer Key

Question 1: (2) (B) and (A)

Question 2: (4) (((A) and (not (B))) and (not (A))) and (A)

Question 3: (3) ((A) or (not (C))) and (B)

Question 4: (2) ((A) or (A)) or (C)

Question 5: (4) ((B) or (not (A))) and (A)

Question 6: (1) (((A) or (not (A))) or (B)) or (not (B))

Question 7: (3) (A) and (not (A))

Question 8: (2) (A) or (B)

Question 9: (1) ((B) or (not (B))) or (not (B))

Question 10: (1) ((A) and (not (A))) and (B)