

Q1: The SOP for the given minterms - [1, 3] is?

- A. $(\sim A.\sim B.C)+(\sim A.B.C)$
- B. $(\sim A.\sim B.C)+(\sim A.B.C)+(A.\sim B.\sim C)$
- C. $(\sim A.\sim B.C)+(\sim A.B.C)$
- D. $(\sim A.\sim B.C)+(\sim A.B.C)$

Q2: The POS for the given minterms - [1, 4, 5, 6, 7] is?

- A. $(\sim A+\sim B+\sim C).(\sim A+\sim B+C).(\sim A+B+\sim C).(\sim A+B+C)$
- B. $(\sim A+\sim B+\sim C).(\sim A+\sim B+C).(\sim A+B+C).(A+B+\sim C)$
- C. $(\sim A+\sim B+\sim C).(\sim A+B+\sim C).(\sim A+B+C)$
- D. $(\sim A+\sim B+C).(\sim A+B+\sim C).(\sim A+B+C).(A+B+C)$

Q3: The decimal equivalent of 1110.1001 is?

- A. 14.5645
- B. 14.5725
- C. 14.5625
- D. 14.5622

Q4: Convert the expression $(\sim A.B.\sim C)+(A.\sim B.\sim C)+(A.B.\sim C)+(A.B.C)$ to POS for m

- A. $(\sim A+\sim B+\sim C).(\sim A+\sim B+C).(\sim A+B+C).(A+\sim B+C)$
- B. $(\sim A+\sim B+\sim C).(\sim A+\sim B+C).(\sim A+B+C).(A+B+C)$
- C. $(\sim A+\sim B+\sim C).(\sim A+\sim B+C).(\sim A+B+\sim C).(\sim A+B+C).(A+\sim B+\sim C).(A+\sim B+C)$
- D. $(\sim A+\sim B+\sim C).(\sim A+\sim B+C).(\sim A+B+C).(A+\sim B+C)$

Q5: What does the expression $((D + B) . (\sim A + (\sim B + \sim C)))$ evaluate to, When A=0 B=0 C=1 D=1

- A. 1
- B. 0

Q6: Minimize the given expression - $(\sim A + \sim B + \sim C) \cdot (A + \sim B + C) \cdot (A + B + \sim C)$

- A. $F = AC'$
- B. $F = AB'C' + BC + A'C + A'B$
- C. $F = AB'C' + ABC$
- D. $F = A'B + AB'C' + AC$
- E. $F = AB'C + B'C + AC + AB$

Q7: Convert the expression $(\sim A + \sim B + \sim C) \cdot (\sim A + \sim B + C) \cdot (\sim A + B + \sim C)$ to SOP form

- A. $(\sim A \cdot B \cdot C) + (A \cdot \sim B \cdot \sim C) + (A \cdot \sim B \cdot C) + (A \cdot B \cdot \sim C) + (A \cdot B \cdot C)$
- B. $(\sim A \cdot B \cdot C) + (A \cdot \sim B \cdot C) + (A \cdot B \cdot \sim C) + (A \cdot B \cdot C)$
- C. $(\sim A \cdot \sim B \cdot \sim C) + (A \cdot \sim B \cdot \sim C) + (A \cdot \sim B \cdot C) + (A \cdot B \cdot \sim C)$
- D. $(\sim A \cdot B \cdot C) + (A \cdot \sim B \cdot \sim C)$

Q8: How do you represent decimal number 41 in 8421 BCD code

- A. 00000001
- B. 01000001
- C. 11000001
- D. 01100001

Q9: Minimize the given expression - $(\sim A \cdot \sim B \cdot C) + (\sim A \cdot B \cdot \sim C) + (A \cdot \sim B \cdot \sim C)$

- A. $F = AB'C' + A'B'C + A'BC'$
- B. $F = C' + A$
- C. $F = AB'C' + ABC + ABC'$
- D. $F = A'B'C + AC' + BC'$
- E. $F = B + AC' + A'C$

Q10: What is the binary representation of 57 (in octal)?

- A. 101110
- B. 001111
- C. 111111
- D. 101111

Q11: Convert the expression $(\sim A.\sim B.C)+(\sim A.B.\sim C)+(\sim A.B.C)+(A.\sim B.\sim C)+(A.B.\sim C)$ to POS form

- A. $(\sim A+\sim B+\sim C).(A+B+C)$
- B. $(\sim A+\sim B+\sim C).(A+\sim B+C).(A+B+C)$
- C. $(\sim A+\sim B+\sim C).(A+B+C)$
- D. $(\sim A+\sim B+\sim C).(\sim A+\sim B+C).(A+\sim B+\sim C).(A+B+C)$

Q12: The decimal equivalent of 0010.1000 is?

- A. 6.5
- B. 2.5
- C. 265
- D. 215

Q13: Write the mantissa (in Hexadecimal) for the decimal number: 5.19109977
8617078

- A. 261dEd
- B. 561d7d
- C. 261B7d
- D. 261d7d

Q14: Write the mantissa (in Hexadecimal) for the decimal number: 3.52392425
5721157

- A. A187fa
- B. 6180fa
- C. 6187fa
- D. 4187fa

Q15: How do you represent decimal number 98 in 8421 BCD code

- A. 00011000
- B. 10010000
- C. 10011010
- D. 10011000

Q16: Convert the expression $(\sim A + \sim B + C) \cdot (\sim A + B + \sim C) \cdot (\sim A + B + C) \cdot (A + \sim B + \sim C) \cdot (A + \sim B + C) \cdot (A + B + \sim C)$ to SOP form

- A. $(\sim A \cdot \sim B \cdot \sim C) + (\sim A \cdot \sim B \cdot C)$
- B. $(\sim A \cdot \sim B \cdot \sim C) + (A \cdot B \cdot C)$
- C. $(\sim A \cdot \sim B \cdot \sim C) + (A \cdot B \cdot \sim C) + (A \cdot B \cdot C)$
- D. $(A \cdot \sim B \cdot \sim C) + (A \cdot \sim B \cdot C) + (A \cdot B \cdot C)$

Q17: The decimal equivalent of 0111.1011 is?

- A. 7.6871
- B. 7.6805
- C. 7.6875
- D. 7.6873

Q18: Convert the given Gray code (01111110)GRAY into BCD format

- A. 10100100
- B. 10000100
- C. 10001100
- D. 10010100

Q19: What is the binary representation of 14 (in hexadecimal)?

- A. 10101
- B. 10100
- C. 10000
- D. 11100

Q20: Minimize the given expression - $(\sim A \cdot \sim B \cdot \sim C) + (\sim A \cdot B \cdot \sim C) + (\sim A \cdot B \cdot C) + (A \cdot \sim B \cdot \sim C) + (A \cdot \sim B \cdot C)$

- A. $F = A'C' + AB' + A'B$
- B. $F = A'C' + BC' + AB'C + A'B$
- C. $F = A'C' + B'C'$
- D. $F = A'C' + A'B' + A'B$
- E. $F = AC' + B'C + A'B'C + AB$