

Test No. 5 (Chapter NO.6)

Computer Science	9th class Punjab/Sindh Board -2020	Paper I/II
Time:15 Min	Objective Type	Marks:10

Note: Four possible answer A,B,C and D to each question are given .The choice which you think is correct, fill that circle in front of that questions with Marker or Pen in the answer-book cutting or filling two or more circles will result zero mark in that question.

- 1.1 Who developed Boolean algebra?
 (a) Von Neumann (b) George Boole (c) Charles Babbage (d) Dennis Ritchie
2. OR operator of Boolean Algebra is denoted by.
 (a) + (b) * (c) - (d) .
3. AND operator of Boolean Algebra is denoted by.
 (a) * (b) + (c) - (d) .
4. In Boolean Algebra, $A \bar{A}$ is equal to.
 (a) 1 (b) 0 (c) A (d) \bar{A}
5. K-MAP introduced by....
 (a) Maurice Karnaugh (b) George boole (c) Charles Babbage (d) Pascal
6. A Karnaugh map with three variables has call.
 (a) 2 Cell (b) 4 cell (c) 8 cell (d) 16 cell
7. A Boolean function with four variables will have _____ maxterms.
 (a) 8 (b) 16 (c) 24 (d) 32
8. In Boolean algebra $A + 1 = ?$
 (a) 1 (b) 0 (c) A (d) \bar{A}
9. K-MAP is used to.
 (a) Evaluate a Boolean (b) solve algebraic (c) Change decimal (d) Solve binary
10. In Boolean Algebra $A + 0$ is equal to.
 (a) 1 (b) 0 (c) A (d) \bar{A}

	A B C D		A B C D		A B C D		A B C D		A B C D
1	<input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D	4	<input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D	7	<input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D	10	<input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D	13	<input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D
2	<input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D	5	<input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D	8	<input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D	11	<input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D	14	<input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D
3	<input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D	6	<input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D	9	<input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D	12	<input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D	15	<input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D

نوٹ: معروضی سوال تائے کو توجہ سے پڑھیں اور ہر MCQ کی درست آپشن A, B, C, D کو پین کی سیاہی یا مارکر سے اس طرح پُر کریں کہ سیاہی دائرے سے باہر نہ نکلے۔ ایک سے زیادہ دائروں کو پُر کرنے یا کات کر پُر کرنے کی صورت میں مذکورہ جواب غلط تصور ہوگا۔

Test No. 5 (Chapter NO. 6)

Computer Science	9th class Punjab/Sindh Board -2020	Paper I/II
Time:1:45 Hours	Essay Type	Marks:40

PART – I

2. **Write a short answer to any FOUR (4) question.** **8**
- (i) Write in brief about Boolean Algebra.
 - (ii) Define logical OR operation.
 - (iii) Define Boolean constants.
 - (iv) What is Boolean variables?
 - (v) Define Boolean Expression.
 - (vi) Describe Duality Principle.
3. **Write a short answer to any FOUR (4) question.** **8**
- (i) What is meant by Literals?
 - (ii) State the function for Truth table.
 - (iii) Make truth table for OR operation.
 - (iv) Make truth table for AND operation.
 - (v) Which function is called Boolean function?
 - (vi) Define the absorption law.
4. **Write a short answer to any FOUR (4) question.** **8**
- (i) Define AND operation.
 - (ii) Differentiate between AND and OR operator.
 - (iii) What is D-Morgan's law?
 - (iv) Define minterm.
 - (v) Make a truth table $x + y$
 - (vi) What is advantage of K-MAP method?

PART – II

Note: Attempt any TWO questions.

5. Prove truth table $x.(y.z) = (x.y) .z$ **8**
6. Simplify Boolean Function with K-MAP method. **8**
7. Explain AND and OR logic gates and show their function by using a truth table. **8**