DELHI PUBLIC SCHOOL , JAMMU

REVISION SHEET FOR CYCLE TEST – 1 (2018- 2019)

Class : XII

Subject : Computers (083)

Topics :   **Programming in C++**

                 Data Structure

                 Boolean Algebra

Very Short Answer Questions:

Q1. Differentiate between a constant and a variable.

Q2. What is the purpose of a header file in a program?

Q3. What is the difference between automatic type conversion and type casting? Also give a suitable code to illustrate both.

Q4. What is the difference between call by value and call by reference in a user defined function in c++?

Q5. Write a program to enter a number and check if it is an Armstrong number.

Short Answer Questions:

Q6. State and verify Involution law.

Q7. Prove algebraically $X . Y + X' . Z + Y . Z = X. Y + X' . Z$

Q8. If $F (a, b, c, d) = \sum (0,2,4,5,7,8,10,12,1,15)$ obtain the simplified form using K-map.

Q9. State and Prove De Morgan's Theorem.

Long Answer Questions:

Q10. Minimise $AB + A'C' + AB'C (AB + C)$.

Q11. Reduce $X'Y'Z' + X'YZ' + X Y' Z' + X Y Z'$.

Q12. Convert the following infix notation of expression to an equivalent postfix notation expression .

       (A+B)*C-D/E

Q13. Write the definition function PUSH() in C++ to add a new book in a dynamic stack of Books.

Q14. Write an algorithm for merge sort of an array.

Q15. Write a C++ code for the binary searching technique.