DELHI PUBIC SCHOOL, JAMMU
ASSIGNMENT-I (2018-19)

Exam: Annual Exam **Class-XI** **Subject: Computer Science**

1. Differentiate between OCR and OMR?
2. What are the factors that determine the time taken to access data from a magnetic disk?
3. What negative value does 100011011 represent?
4. Calculate $(1100)_2$-$(1010)_2$ using 2's complement method.
5. Explain the difference between 0,'0','\0', "0".
6. What are literals in C++? How many types of literals are allowed in C++?
7. Discuss the instruction cycle of the processor in details.
8. Write an algorithm to calculate and print the sum of first 10 natural numbers.
9. What will be the order of evaluation in the following expression:
    i)   a<4||d>e||!d>6
    ii)   a+b>c &&b-c<d||b+d>=a+c
10. Convert:
    i) 200_{10} to binary.
    ii) 1101.000101_2 to decimal.
    iii) 0.015625_{10} to octal.
    iv) 10101110.010111_2 to hexadecimal
    v) $3BF.5C_{16}$ to binary.
11. Which of the following two statements are valid? Why ? Also write their results.
      int x;
    i)   x= 1,024;   ii) x=(1,02);
12. What do you mean by Abstraction and Encapsulation? How are these two terms interrelated?
13. Write two major differences between Object Oriented Programming and Procedural Programming.
14. Write two advantages of using include compiler directive.
15. Why main function special? Give two reasons.
16. Differentiate between a Run Time Error and Syntax Error. Also give suitable examples of each in C++.
17. What are data types? What are all predefined data types in C++?
18. What is a variable ? How many values are associated with it?
19. Identify the errors in the following code segment:
    :
    int main( )   {   cout<<"Enter two numbers";
                            cin>>num>>auto;
                            float area= length * breadth;
                     }
20. Evaluate x=++y+2y if y=6.
21. Differentiate between the post-increment and pre-increment operators. Also, give a suitable C++ code to illustrate both.
22. a) Write an equivalent while loop for the following for loop:
    for(int i= 2, sum= 0; i=i +2)
    sum +=i;
    b) If short integer on a machine is 4 bytes long, what will be the size of unsigned short and signed short on the same machine?
    c) What do you mean by type casting ? What is type cast operator?
    d) Write a program to input an integer and print whether it is even or odd.
    e) What output will the following code fragment produce?
            int val, res, n=1000;
            cin>>val;
            res = n +val > 1750? 400 : 200;
            cout<< res;
    i)   if the input is 2000   ii) if the input is 1000   iii) if the input is 500
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