

# ATOMIC ENERGY CENTRAL SCHOOL

## UNIT TEST II 2018-2019

CLASS – XI

SUBJECT – COMPUTER SCIENCE

TIME : 1 Hr 30 Minutes.

MM :50

### Instructions :

- (i) All questions are compulsory.
- (ii) Programming language : C++
- (iii) Please write down the complete serial number of the question before attempting it.

1. (a) Write the names of the header files to which the following belong : 2

- (i) `isdigit( )`      (ii) `strcat( )`

(b) Write the output of the following code:. 4

```
#include<iostream.h>
#include<conio.h>
#include<string.h>
void virus( int a[], int size)
{
    for(int i = 0 ; i < size ; i++ )
    {
        if(a[i]%2!=0)
            cout << a[i]<<"$" ;
    }
}
void main()
{
    clrscr( ) ;
    int a[] = {2,3,5,21,14,22,94,100,6,214,8};
    int width=11;
    virus(a,width);
    getch( ) ;
}
```

(c) Study the following program and select the possible output from it: 4

```
#include<iostream.h>
#include<stdlib.h>
#include<conio.h>
void main( )
{
    clrscr( );
    randomize( );
    char city[][10] = { "DEL" , "DAE" , "KOL" , "STD" , "AEC" };
    int i;
    for( int j=0;j<4;j++)
    {
        i = random(3)+1;
        cout<<city[i]<<":" ;
    }
}
```

- (i) DAE:KOL:KOL:DAE
- (ii) KOL:DAE:DEL:DAE
- (iii) KOL:STD:AEC:AEC
- (iv) DEL:DAE:KOL:STD

- 2.(a) Differentiate between call by value and call by reference giving a suitable example in C++. 4
- (b) Write a program to receive a one dimensional integer array and its size from the user( Max size 100). The program finds sum of all even elements of the array and displays the resultant sum. 4  
 i.e. if integer array elements are  
           1      2      4      6      **5**      7  
 Then your program should produce following output.  
 Sum of all even elements is 12
- (c) Differentiate between Encapsulation and Data Hiding with respect to OOP<sub>s</sub>. 4
- (d) Differentiate between Global and Local variables with the help of an example each in C++. 4
- 3.(a) Differentiate between Actual Parameter and Formal Parameter. Also give an example of each in C++. 4
- (b) Write a program that receives a string from the user. The program should count and display the number of times character 'A' or 'a' occurs in the text entered by the user. 4  
 Example : If the string entered is  
 Delhi is the capital of India. Delhi is a metro city.  
 Then the output should be as follows:  
 A or a occurs 2 times.
- (c) Write a C++ program to generate Fibonacci series upto a count( max 100) entered by the user. 4
- (d) Explain Data Abstraction with respect to OOP<sub>s</sub> with the help of an example. 4
- 4.(a) Write a C++ function Rearrange() which receives an integer array and its size as parameter. The function should swap first half of the array elements with the next half in the following given fashion and display it on screen. 4  
 If the entered array is               4      6      5      8      17      3      14  
 Then the output should be       14      3      17      8      5      6      4
- (b) Write a program to check whether a string entered by the user is palindrome? 4

**BEST OF LUCK**