



INDIAN SCHOOL DARSAIT
SAMPLE PAPER II FOR SECOND TERM EXAMINATION
COMPUTER SCIENCE (083)



Class: XI

Max. Marks: 70

General Instructions:

(i) *All questions are compulsory.*

1.
 - a) What are variables in C++. State any 4 rules for naming the variables. 2
 - b) What is the difference between increment and decrement operator. Also state how the evaluation takes place while cascading them. 2
 - c) Give the output for the following expression: 3
 - (i) not12==12
 - (ii) true and not false
 - d) Write a program to check if a given number is positive or negative using a conditional operator. 3
2.
 - a) Explain do...while loop with an example. 2
 - b) Convert the following code snippet to do..while loop in C++ 2

```
void main(){
int k=10,sum=0;
while(k>90){
sum+=100;
k+=10;}
cout<<sum;
getch();}
```
 - c) Write a program to print the reverse of a given number. 3
 - d) Write a menu driven program in C++ to perform the following operations, 3
 1. Factorial of a number
 2. Fibonacci series
 3. Sum of series 1+2+3...N
3.
 - a) What is an array? Write the C++ statement to declare a 1D array with 10 elements. 2
 - b) Write a C++ program to find the sum and average of one dimensional integer array. 2
 - c) Write a C++ program to print only that number ending with 3 in a 1D array. 3
 - d) Write a C++ program to accept a 1D array of size N and display the occurrence of a given number from the user. 3
4.
 - a) Write C++ program to accept a MxN matrix and display all the positive elements. 2
 - b) Write C++ program to accept a MxN matrix and print sum of all the elements in the upper triangle. 4
 - c) Write a C++ program to accept two matrices of size MxN and PxQ, add both the matrices and display the sum of the resultant matrix. 4
5.
 - a) Name the functions belonging to <string.h> header file. 2
 - b) Write a C++ program to count the number of lowercase and uppercase letters in a string. 2
 - c) Find and write the output of the following C++ program code: 3

```
int main(){
char name[] = "CoMPutER";
for (int x = 0; x < strlen(name); x++)
if (islower(name [x]))
name [x] = toupper(name[x]);
else
if (isupper(name[x]))
if (x % 2 == 0)
name[x] = tolower(name[x]);
```

```

        else
            name[x] = name[x-1];
    cout << name;
    return 0;
}

```

- d) Write a C++ program to toggle the case of the string (i.e if the letter is lowercase then change to uppercase and vice versa.) also display the string. 3
6. a) What are the different types of arguments in a user defined function? 1
 b) Explain what a function prototype is and function definition in C++, with an example. 3
 c) Find and write the output of the following C++ program code: 3
- ```

int global = 10;
void func(int &x, int y){
 x = x - y;
 y = x * 10;
 cout << x << ", " << y << "\n";}
int main(){
 int global = 7;
 func (::global, global);
 cout << global << ", " << ::global << "\n";
 func(global, ::global);
 cout << global << ", " << ::global << "\n";}

```
- d) Explain call by reference with an example. 3
7. a) Which of the following is a properly defined structure? 1  
 a) struct {int a;}  
 b) struct a\_struct {int a;}  
 c) struct a\_struct int a;  
 d) struct a\_struct {int a;};
- b) Create a structure Employee with data member's eno, ename, and salary. Declare an object and assign value to it. 2
- c) Find and write the output of the following c++ program code: 3
- ```

struct MyBox{int length, breadth, height;};
void dimension (MyBox M){
    cout << M.length << "x" << M.breadth << "x";
    cout << M.height << endl;}
int main (){
    MyBox B1 = {10, 15, 5}, B2, B3;
    ++B1.height;
    dimension(B1);
    B3 = B1;
    ++B3.length;
    B3.breadth++;
    dimension(B3);
    B2 = B3;
    B2.height += 5;
    B2.length--;
    dimension(B2);}

```
- d) Create a structure Candidate (cno,cname,age). Write a C++ program to accept details of N candidates and display all those candidates whose age is between 10to 19. If no record found display 'No Candidate Found'. 4