



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



Class: XI

Max. Marks: 70

**General Instructions:**

(i) *All questions are compulsory.*

1.
  - a) What is the difference between a keyword and an identifier? 1
  - b) Name the header files for the functions (i)sqrt() (ii) setw() (iii) pow() (iv) tolower() 2
  - c) What is the difference between pre-increment and post-increment operator. Explain with an example. 2
  - d) Give the output for the following expression: 2
    - (i) True and not false
    - (ii)  $5 \geq 3$  and  $5 * 6 + 1 \leq 0$
  - e) Explain the conditional operator with an example. 3
2.
  - a) Bring out the difference between switch and if statement. 2
  - b) Convert the following code snippet to for 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 check if a given number is Armstrong or not. Accept the number from the user. 3
  - d) Write a menu driven program in C++ to perform the following operations, by accepting the character of the operation from user: 3

```
+ Add
-Subtract
* Multiply
/ Divide
```
3.
  - a) Initialize a 1D array with 10 elements. 2
  - b) Give the output for the following code snippet: 2

```
void main(){
int i,j,k,a[]={ 10,20,30,40,50};
a[0]=90;
for(i=0;i<=3;i++)
a[i]=a[i]+i;
for(i=4;i>=0;i--)
cout<<a[i]<<" "; }
```
  - c) Write a C++ program to print the sum of all positive and negative elements in a 1D array of size N. 3
  - d) Write a C++ program to accept a 1D array of size N and display sum of all elements divisible by 5. 3
4.
  - a) Declare a 2D array of size 3x3 and assign it to elements. 1
  - b) Write C++ program to accept a MxN matrix and display all the positive elements. 2
  - c) Write C++ program to accept a MxN matrix and print the sum of all the elements in major diagonal. 3
  - d) Write a C++ program to accept two matrices of size MxN and PxQ, multiply both the matrices and display the product of the resultant matrix. 4
5.
  - a) What is the difference between strcmp() and strcpy()? Explain with an example each. 2
  - b) Write a C++ program to find the total number of vowels in a given string. 2
  - c) Find and write the output of the following C++ program code: 3

```

void main(){
char S[]="CRACKAJACK";
int Size=strlen(S);
for(int I=0;I<Size-1;I+=2){
char WS=S[I];
S[I]=S[I+1];
S[I+1]=WS;}
for(I=1; I<Size;I+=2)
if(S[I]>='M' && S[I]<='U')
S[I]='@';
cout<<S<<endl;}

```

- d) Write a C++ program to find whether a given string is palindrome or not. 3
6. a) What is the difference between local and global variable. Explain with an example. 2  
b) Write a C++ program to accept radius of a circle and calculate its area using a user defined function. 2  
c) Find and write the output of the following C++ program code: 3
- ```

void copy (int& a, int& b, int& c){
a *= 2;
b *= 2;
c *= 2;}
int main (){
int x = 1, y = 3, z = 7;
copy (x, y, z);
cout << "x =" << x << ", y =" << y << ", z =" << z;}

```
- d) Explain call by value with an example. 3
7. a) Give an example of structure declaration. 1  
b) Rewrite the following program after removing the syntactical error(s), if any. Underline each correction. 2
- ```

#include<iostream.h>
struct STUDENT
{ char stu_name[20];
char stu_gender;
int stu_age=17;}s;
void main(){
gets(stu_name);
gets(stu_gender);
getch();}

```
- c) Find and write the output of the following c++ program code: 3
- ```

struct play{ int score, bonus;};
void calculate(play &p, int n = 10){
p.score++;
p.bonus += n;}
int main(){play pl = {10, 15};
calculate(pl, 5);
cout << pl.score << ":" << pl.bonus << endl;
calculate(pl);
cout << pl.score << ":" << pl.bonus << endl;}

```
- d) Create a structure Student which stores details of 25 students (rollno, name, marks in three subjects). Write a program to accept all 25 student details and display only those students who have passed in all three subjects. 4