



INDIAN SCHOOL DARSAIT DEPARTMENT OF ICT



Subject: Computer Science

Topic: Review of C++
(Output-String, Function, Structure)

Worksheet No.: 1

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Date: _____

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Class & Div: XII _

Roll Number : ____

```
1. void Mycode(char Msg[],char CH)
{
for(int cnt=0;Msg[cnt]!='\0';cnt++)
{ if(Msg[cnt]>='B' && Msg[cnt]<='G')
Msg[cnt]=tolower(Msg[cnt]);
else
if(Msg[cnt]=='N' || Msg[cnt]=='n' || Msg[cnt]=='')
Msg[cnt]=CH;
else
if(cnt%2==0)
Msg[cnt]=toupper(Msg[cnt]);
else
Msg[cnt]=Msg[cnt-1];
} }
void main()
{ char MyText[]="Input Raw";
Mycode(MyText,'@');
cout<<"NEW TEXT:"<<MyText<<endl; }
```

```
2. void MyCode (char Msg [], char CH){
for (int (Cnt=0;Msg[Cnt]!='\0';Cnt++){
if (Msg[Cnt]>='B' && Msg[Cnt]<='G')
Msg[Cnt]=tolower(Msg[Cnt]);
else
if (Msg[Cnt]=='A' || Msg[Cnt]=='a')
Msg[Cnt]=CH;
else
if (Cnt%2==0)
Msg[Cnt]=toupper(Msg[Cnt]);
else
Msg[Cnt]=Msg[Cnt-1];
}}
void main (){
char MyText [] =" ApEACeDriVE";
MyCode(MyText,'@');
cout<<"NEW TEXT:"<<MyText<<endl;
}
```

```

3. void Secret (char Mig [ ], int N);
void main ( ){
char SMS[ ] = “rEPorTmE” ;
Secret{SMS,2);
cout<<SMS<<end1;
}
void Secret(char Msg[ ], int N){
for (int C=0; Msg[C] != '\0' ;C++)
if (C%2==0)
Msg[C] = Msg[C]+N;
else if (isupper(Msg[C]))
Msg[C] = tolower(Msg[C]);
else
Msg[C] = Msg[C]-N;}

```

```

4. void main(){
char a[]= “Exam-2011 AheAd”;
int i;
for(i=0; a[i]!='\0';i++)
{
if(a[i]>= 97 && a[i]<=122)
a[i] --;
else
if(a[i]>= '0' && a[i]<= '9')
a[i] = a[i -1];
else
if(a[i]>= 'A' && a[i]<= 'Z')
a[i]+ = 32;
else
a[i]= '#';
}
puts(a);}

```

```

5. void main(){
char Text[ ] = “Mind@Work!”;
for(int i=0 ; Text[i]!='\0' ; i++)
{
if(!isalpha(Text[i]))
Text[i]= '*';
else if (isupper(Text[i]))
Text[ i]=Text[i]+1;
else
Text[i]=Text[i+1];
}
cout<<Text;
}

```

```

6. void ReCode ( char Text[ ], int Num );
void main ( )
{
char Note [ ] = "GooDLUck";
Recode (Note, 2);
cout << Note <<endl;
}
void ReCode (char Text [ ], int Num)
{
for ( int K = 0 ; Text [K] !='\0' ; K++)
if ( K % 2 == 0)
Text [K] = Text [K] – Num;
else if ( islower (Text[K] ))
Text [K] = toupper ( Text [K] )
else
Text[K] = Text[K] + Num;
}

7. struct THREE_D
{int X,Y,Z;};
void MoveIn(THREE_D &T, int Step=1)
{
T.X+=Step;
T.Y-=Step;
T.Z+=Step
}
void MoveOut(THREE_D &T, int Step=1)
{
T.X-=Step;
T.Y+=Step;
T.Z-=Step;
}
void main ()
{
THREE_D T1={10,20,5},T2={ 30,10,40};
MoveIn(T1);
MoveOut(T2,5);
cout<<T1.X<<" "<<T1.Y<<" "<<T1.Z<<endl;
cout<<T2.X<<" "<<T2.Y<<" "<<T2.Z<<endl;
MoveIn(T2,10);
cout<<T2.X<<" "<<T2.y<<" "<<T2.Z<<endl;
}

```

```

8. struct POINT{ int X, Y, Z;};
void StepIn(POINT & P, int Step=1){
    P.X+=Step;
    P.Y-=Step;
    P.Z+=Step;}
void StepOut(POINT & P, int Step=1){
    P.X-=Step;
    P.Y+=Step;
    P.Z-=Step;}
void main ( ){
    POINT P1={15, 25, 5}, P2={10, 30, 20};
    StepIn(P1);
    StepOut(P2,4);
    cout<<P1.X<<" "<<P1.Y<<" "<<P1.Z<<endl;
    cout<<P2.X<<" "<<P2.Y<<" "<<P2.Z<<endl;
    StepIn(P2,12);
    cout<<P2.X<<" "<<P2.Y<<" "<<P2.Z<<endl;}

```

```

9. void Execute(int &X, int Y = 200) {
    int TEMP = X + Y;
    X += TEMP;
    if (Y != 200)
    cout << TEMP << " " <<X<<" " <<Y<<endl;
    }
void main() {
    int A = 50, B = 20;
    Execute(B);
    cout << A << " " << B << endl;
    Execute(A,B);
    cout << A << " " << B << endl; }

```

```

10. void Withdef (int HisNum = 30){
    for (int I=20 ; I<*= HisNum; I+=5)
    cout<<I<<" ";
    cout<<endl;
    }
void Control (int &MyNum){
    MyNum+=10;
    Withdef(MyNum);
    }
void main (){
    int YourNum=20;
    Control (YourNum);
    Withdef();
    cout<<"Number="<<YourNum<<endl;
    }

```

```

11. void in(int x,int y, int &z){
    x+=y;
    y--;
    z*=(x-y);
}
void out(int z,int y, int &x)
{ x*=y;
y++;
z/=(x+y);
}
void main()
{ int a=20, b=30, c=10;
out(a,c,b);
cout<<a<<"#"<<b<<"#"<<c<<"#"<<endl;
in(b,c,a);
cout<<a<<"@"<<b<<"@"<<c<<"@"<<endl;
out(a,b,c);
cout<<a<<"$"<<b<<"$"<<c<<"$"<<endl;
}

```

```

12. void ChangetheContent(int Arr[], int Count){
for(int C=0; C<Count; C++)
Arr[C]= Arr[Count - C- 1];}
void main(){
int A[]={ 1, 2, 3}, B[] = {20, 30, 40, 50}, C[]= {100, 200};
ChangetheContent(A,3);
ChangetheContent(B,4);
ChangetheContent(C,2);
for(int L=0; L<3; L++) cout<<A[L]<<'#';
cout<<endl;
for(int L=0; L<4; L++) cout<<B[L]<<'#';
cout<<endl;
for(int L=0; L<2; L++) cout<<C[L]<<'#';
cout<<endl;
}

```

```

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

```

```

14. void SwitchOver(int A [ ], int N, int Split){
    for (int K=0 ; K<N; K++)
    if (K<Split)
    A[K]+ =K;
    else
    A [K]*=K;
    }
    void Display (int A [ ], int N)
    {
    for (int K=0 ; K<N ; K++)
    (K%2==0)? cout<<A[K]<<"% ":cout<<A(K)<<endl;
    }
    void main ( )
    {
    int H[ ]= {30,40,50,20,10,5};
    SwitchOver (H, 6, 3);
    Display (H, 6);
    }

```

15.

Find and write the output of the following C++ program code :

Note : Assume all required header files are already included in the program.

```

#define Diff(N1,N2) ((N1>N2)?N1-N2:N2-N1)
void main()
{
    int A,B,NUM[] = {10,23,14,54,32};
    for(int CNT =4; CNT>0; CNT--)
    {
        A=NUM[CNT];
        B=NUM[CNT-1];
        cout<<Diff(A,B)<<'#';
    }
}

```