

**International Indian School, Riyadh**

**Class – XII**

**I Term**

**Worksheet 1**

**Subject – Computer Science**

1. Answer the questions (i) and (ii) after going through the following class:

class Seminar

{

int Time;

public:

Seminar() //Function 1

{

Time=30;cout<<"Seminar starts now"<<endl;

}

void Lecture() //Function 2

{

cout<<"Lectures in the seminar on"<<endl;

}

Seminar(int Duration) //Function 3

{

Time=Duration;cout<<"Seminar starts now"<<endl;

}

~Seminar()

//Function 4

{

cout<<"Vote of thanks"<<endl;

}

};

i) In Object Oriented Programming, what is Function 4 referred as and when does it get invoked/called?

ii) In Object Oriented Programming, which concept is illustrated by Function 1 and Function 3 together? Write an example illustrating the calls for these functions.

2. Answer the questions (i) to (iv) based on the following:

```
class PUBLISHER
{
    char Pub[12];
    double Turnover;
protected:
    void Register();
public:
    PUBLISHER();
    void Enter();
    void Display();
};

class BRANCH
{
    char CITY[20];
protected:
    float Employees;
public:
    BRANCH();
    void Haveit();
    void Giveit();
};

class AUTHOR : private BRANCH , public PUBLISHER
{
    int Acode;
    char Aname[20];
    float Amount;
public:
    AUTHOR();
    void Start();
    void Show();
};
```

};

- (i) Write the names of data members, which are accessible from objects belonging to class AUTHOR.
- (ii) Write the names of all the member functions which are accessible from objects belonging to class BRANCH.
- (iii) Write the names of all the members which are accessible from member functions of class AUTHOR.
- (iv) How many bytes will be required by an object belonging to class AUTHOR?

3. Write a function in C++ to merge the contents of two sorted arrays A & B into third array C. Assuming array A and B are sorted in ascending order and the resultant array C is also required to be in ascending order.
4. Observe the program segment given below carefully and fill the blanks marked as Statement 1 and Statement 2 using seekp() and seekg() functions for performing the required task.

```
#include <fstream.h>
class Item
{
int Ino;char Item[20];
public:
//Function to search and display the content from a particular record number
void Search(int );
//Function to modify the content of a particular record number
void Modify(int );
};

void Item::Search(int RecNo)
{
fstream File;
File.open("STOCK.DAT",ios::binary|ios::in);


---



//Statement 1


```

```
File.read((char*)this,sizeof(Item));
cout<<Ino<<"==>"<<Item<<endl;
File.close();
}

void Item::Modify(int RecNo)
{
fstream File;
File.open("STOCK.DAT",ios::binary|ios::in|ios::out);
cout>>Ino;cin.getline(Item,20);


---


//Statement 2

File.write((char*)this,sizeof(Item));
File.close();
}
```

5. Write a function in C++ to count the number of lines present in a text file "STORY.TXT".
6. Write a function in C++ to search for a BookNo from a binary file "BOOK.DAT", assuming the binary file is containing the objects of the following class.

```
class
{
int Bno;
char Title[20];
public:
int RBno(){return Bno;}
void Enter(){cin>>Bno;gets>Title);}
void Display(){cout<<Bno<<Title<<endl;}
};
```

7. Answer the questions (i) and (ii) after going through the following program:

```
class Match
{
int Time;
public:
Match() //Function 1
{
Time=0;
cout<<"Match commences"<<endl;
}
void Details() //Function 2
{
cout<<"Inter Section Basketball Match"<<endl;
}
Match(int Duration) //Function 3
{
Time=Duration;
cout<<"Another Match begins now"<<endl;
}
Match(Match &M) //Function 4
{
Time=M.Duration;
cout<<"Like Previous Match "<<endl;
};
};
```

i) Which category of constructor - Function 4 belongs to and what is the purpose of using it?

ii) Write statements that would call the member Functions 1 and 3

Prepared By Mary Sobha

IX-XII Boys Section