

High Order Thinking Skill Questions

Subject : Computer Science

Class: XII

1 Mark Questions

Programming in C++

1. Observe the program segment carefully and answer the question that follows:

```
class item
{
    int item no;
    char item name[20];
public:
    void enterDetail();
    void showDetail();
    int getItem no(){ return item no;}
};
void modify(item x, int y )
{
    fstream File;
    File.open( "item.dat", ios::binary | ios::in | ios::out) ;
    item i;
    int recordsRead = 0, found = 0;
    while(!found && File.read((char*) &i , sizeof(i)))
    {
        recordsRead++;
        if(i . getItem no() == y )
        {
            //Missing statement
            File.write((char*) &x , sizeof(x));
            found = 1;
        }
    }
    if(! found)
        cout<<"Record for modification does not exist";
    File.close();
}
```

If the function modify() is supposed to modify a record in the file “ item.dat “, which item no is y, with the values of item x passed as argument, write the appropriate statement for the missing statement using seekp() or seekg(), whichever is needed, in the above code that would write the modified record at its proper place.

2. Observe the program segment carefully and answer the question that follows:

```
class member
{
```

```

        int member no;
        char member name[20];
    public:
        void enterDetail( );
        void showDetail( );
        int getMember no( ){ return member no;}
};
void update(member NEW )
{
    fstream File;
    File.open( "member.dat", ios::binary|ios::in|ios::out );
    member i;
    while(File .read((char*) & i , sizeof (i)))
    {
        if(NEW . getMember no( ) == i . getMember no( )
           //Missing statement
           File.write((char*) &NEW , sizeof (NEW));
        }
    }
    File.close( );
}

```

If the function update() is supposed to modify the member name field of a record in the file " member.dat" with the values of member NEW passed as argument, write the appropriate statement for the missing statement using seekp() or seekg(), whichever is needed, in the above code that would write the modified record at its proper place.

3. Observe the program segment carefully and answer the question that follows:

```

class item
{
    int item no;
    char item name[20];
    public:
        void enterDetails( );
        void showDetail( );
        int getItem no( ){ return item no;}
};
void modify(item x )
{
    fstream File;
    File.open( "item.dat",           ); //parameter missing
    item i;
    while(File .read((char*) & i , sizeof (i)))
    {
        if(x . getItem no( ) == i . getItem no( )

```

```

        {
            File.seekp(File.tellg() - sizeof(i));
            File.write((char*) &x , sizeof (x));
        }
    else
        File.write((char*) &i , sizeof (i));
    }
    File.close() ;
}

```

If the function modify() modifies a record in the file “ item.dat “ with the values of item x passed as argument, write the appropriate parameter for the missing parameter in the above code, so as to modify record at its proper place.

4. Observe the program segment carefully and answer the question that follows:

```

class member
{
    int member no;
    char member name[20];
public:
    void enterDetails( );
    void showDetail( );
    int getMember no( ){ return member no;}
};
void update(member NEW )
{
    fstream File;
    File.open( “member.dat”, ios::binary|ios::in|ios::out ) ;
    member i;
    while(File .read((char*) & i , sizeof (i)))
    {
        if(NEW . getMember no( ) == i . getMember no( ) )
        {
            File.seekp(          , ios::cur ) //Paremeter Missing
            File.write((char*) &NEW , sizeof (NEW));
        }
    }
    File.close() ;
}

```

If the function update() is supposed to modify a record in the file “ member.dat” with the values of member NEW passed as argument, write the appropriate parameter for the missing parameter in the above code, so as to modify record at its proper place.

5. A file named as “STUDENT.DAT” contains the student records, i.e. objects of class student. Write the command to open the file to update a student record. (Use suitable stream class and file mode(s).

6. A file named as "STUDENT.DAT" contains the student records, i.e. objects of class student. Assuming that the file is just opened through the object FILE of fstream class, in the required file mode, write the command to position the put pointer to point to second record from the last record.
7. A file named as "STUDENT.DAT" contains the student records, i.e. objects of class student. Assuming that the file is just opened through the object FILE of fstream class, in the required file mode, write the command to position the get pointer to point to fifth record from the beginning.
8. Read the code given below and answer the question:

```
void main()
{
    char ch = 'A';
    fstream outFile ("data.dat", ios::out);
    outFile<<ch<<ch;
}

```

If the file contains GOOD before execution, what will be the contents of the file after execution of this code?

9. Observe the program segment carefully and answer the question that follows:

```
class student
{
    int student no;
    char student name[20];
    int mark;
public:
    void enterDetail();
    void showDetail();
    void change mark(); //Function to change the mark
    int getStudent no(){ return student no;}
};
void modify( int y )
{
    fstream File;
    File.open( "student.dat", ios::binary|ios::in|ios::out );
    student i;
    int recordsRead = 0, found = 0;
    while(!found && File .read((char*) & i , sizeof(i)))
    {
        recordsRead++;
        if(i . getStudent no() == y)
        {
            i . change mark();
            //Missing statement 1
            //Missing statement 2
            found = 1;
        }
    }
    if( found == 1)
        cout<<"Record modified" ;
    File.close();
}

```

```
}
```

If the function `modify()` is supposed to change the mark of a student having student no `y` in the file “student.dat”, write the missing statements to modify the student record.

10. Observe the program segment carefully and answer the question that follows:

```
class item
{
    int item no;
    char item name[20];
public:
    void enterDetail( );
    void showDetail( );
    int getItem no( ){ return item no;}
};
void modify(item x )
{
    fstream File;
    File.open( “item.dat”, ios::binary|ios::in|ios::out );
    item i;
    while(File .read((char*) & i , sizeof (i))//Statement 1
    {
        if(x . getItem no( ) == i . getItem no( ))
        {
            File.seekp(File.tellg( ) – sizeof(i));
            File.write((char*) &x , sizeof (x));
        }
    }
    File.close( );
}
```

If the function `modify()` modifies a record in the file “ item.dat” with the values of `item x` passed as argument, rewrite statement 1 in the above code using `ios::eof()` , so as to modify record at its proper place.