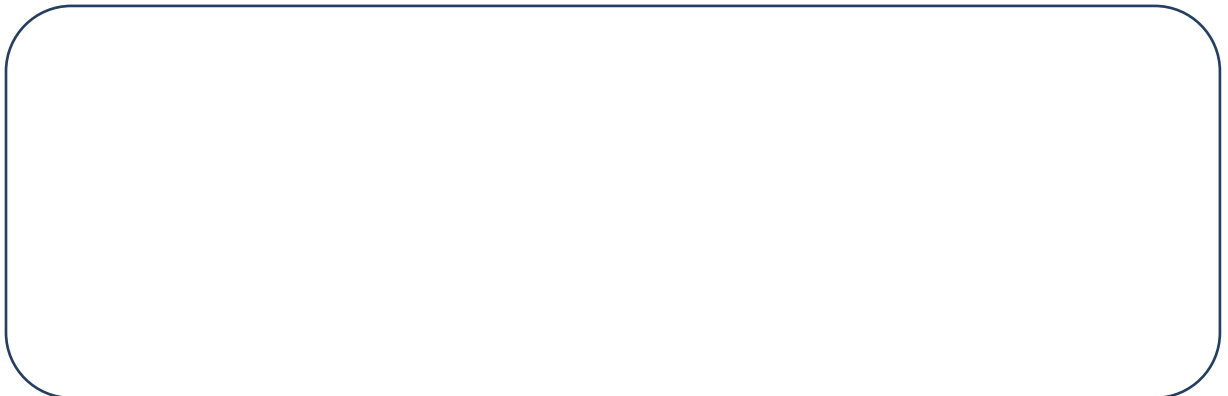


HOLIDAY HOME WORKS FOR CLASS XII B

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

```
class Product
{
    charP_Type[20];
    charP_Name [20];
    int Weight;
    float Rate;
Product ( )                // Function 1
{
    strcpy (P_Type, "Steel");
    strcpy (P_Name, Sheet");
    Weight = 3500;
    Rate = 500;
public:
    void Display ( )        // Function 2
    {
        cout<<P_Type<<"-"<<P_Name<< "."<< Weight << "@ " << Rate <<endl;
    }
};
void main( )
{
    Product P;              // Statement 1
    P.Display ( );         // Statement 2
}
```

- (i) Will Statement 1 initialize all the data members for objects P with the values given in the Function 1? (Yes or No). Justify your answer suggesting the corrections to be made in the above code.
- (ii) What shall be the possible output when the program gets executed? (Assuming if required –the suggested corrections are made in the program).



(2) Define a class named PRODUCT in C++ with following description:

Private Members:

- P_NO // Product number
- P_Type // Product Type
- P_Name // Product Name
- P_Price // Product Price
- A function Get_Prod () to set the price of the product according to the following:

For the value of P_Type "Mobile"

<u>P_Name</u>	<u>P_Price</u>
SONY	15000
SAMSUNG	13000

For P_Type other than "Mobile"

P_Price gets included 14% Extra charge for installation.

Public Members:

- A constructor to assign initial values of P_NO, P_Type and P_Name as "NOT ASSIGNED" and P_Price as 0.
- A function Get_Info() to input the values of P_NO, P_Name and P_Type and also invoke Get_Prod() function.
- A function Disp_Info() to display the value of all the data members.

3. Define a class cricket in C++ with the following description:

Private members:

- Target_score of type integer
- Overs_bowled of type integer
- Extra_time of type integer
- Penalty of type integer
- Cal_penalty() a member function to calculate penalty as follows:
If extra_time ≤ 10, penalty = 1
If extra_time > 10 but ≤ 20, penalty = 2, otherwise, penalty = 5

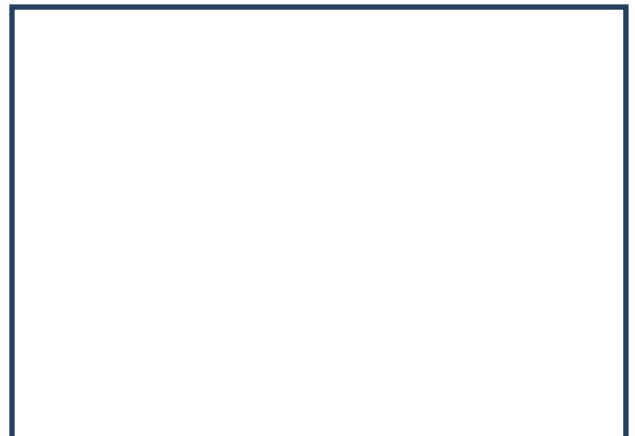
Public members:

- A function Extradata () to allow user to enter values for target_score, over_bowled, Extra_time.

A function DspData() to allow user to view the contents of all data members.

4. Find the output of the following program :

```
#include<iostream.h>
#include<string.h>
#include<ctype.h>
void Change(char Msg[], int Len)
{
```



```

for(int Count=0;Count<Len;Count++)
{
if(islower(Msg[Count]))
Msg[Count]=toupper(Msg[Count]);
else if(isupper(Msg[Count]))
Msg[Count]=tolower(Msg[Count]);
else if(isdigit(Msg[Count]))
Msg[Count]=Msg[Count]+1;
else Msg[Count]='*';
}}
void main()
{
char Message[]="2011 World Cup Ahead";
int Size=strlen(Message);
Change(Message,Size);
cout<<Message<<endl;
for(int C=0,R=Size-1;C<=Size/2;C++,R--)
{
char Temp=Message[C];
Message[C]=Message[R];
Message[R]=Temp;
}
cout<<Message<<endl;

```

5. Give the output of the following program:

```

#include<iostream.h>
voidReCode ( char Text[ ], intNum );
void main ( )
{
    char Note [ ] = "Butterfly";
    Recode (Note, 2);
    cout<< Note <<endl;
}
voidReCode (char Text [ ], intNum)
{
    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; }

```

6. Study the following program and select the possible output from it:

```

#include<iostream.h>
#include<stdlib.h>
constint BIG = 3 ;
void main( )
{

```

```

    randomize( );
    int Digit ;
    Digit = 90 + random (BIG );
    for (int K = DIGIT ; K >= 90 ; K++)
        cout<< K << "$";
}

```

- (i) 93\$93\$92\$91\$90\$
- (ii) 91\$90\$
- (iii) 90\$91\$92\$
- iv 90\$92\$

(iii) Write statement in C++ that would call Function 2 and Function 4 of class Teacher.

7. Define a class named STREAM in C++ with following description:

Private Members:

- AD_NO Integer (Ranges 10 – 2000)
- NAME Array of Character
- Percentage Float
- FEES Float

Public Members:

- A function Read_Data() to input the values of AD_NO, NAME and Percentage.
- A function Select_Stud () to choose students for different streams depending upon their percentage and assign the fees they have to deposit as given below:

Percentage	Stream	Fees
Percentage >= 90	Computer	20000
Percentage <90 but >=80	Biology	18000
Percentage <80 but >= 70	Commerce	14000

- A function Disp_Data() to display the value of all the data members.

1. Rewrite the following program after removing all syntactical error(s), if any. Underline each correction.

```

#include<iostream.h>

int main()

    {    structure student

        {

```

```

        int. rno, mark;
    }stu;
    studentstuA= (1001,49);
        studentstuB= stuA;
    if (stuA!= stuB)
        stuA.mark= 55;
    else
        stuB.mark= 25;
    cout<<stuA.mark<<stuv.mark;
    }

```

2. What will be the output of the following program:

```

#include <iostream.h>

void Secret(char Str[ ])
{
    for (int L=0;Str[L]!='\0';L++)
        for (int C=0;C<L/2;C++)
            if (Str[C]=='A' || Str[C]=='E')
                Str[C]=Str[L-C-1];
            else
            {
                char Temp=Str[C];
                Str[C]=Str[L-C-1];
                Str[L-C-1]=Temp;
            }
    }

void main()
{
    char Message[ ]="PreboardExam";

```

```

Secret(Message);

cout<<Message<<endl;}

```

3. Find the output of the following program:

```

#include <iostream.h>
#include <conio.h>
#include <stdlib.h>
void main ()
{
char serial[] = {'A', 'B', 'C', 'D'};
int number[] = { 2, 6, 7, 3};
clrscr();
randomize();
cout<< " The winner is : ";
cout<< serial [random(3)];
for (int i = 0; i < 4; i++)
cout<< number[sizeof(int) + random(2) - 1 ];
getch();
}

```

Outputs:

- (i) The winner is : A2776
- (ii) The winner is : D6766
- (iii) The winner is : B6767
- (iv) The winner is : C3672



4. Rewrite the following program after removing all syntactical error(s), if any. Underline each correction:

```

#include<iostream.h>
int Digit 6;
void main( )
{
    Number = 18;
    for (intCv = 1 : Cv<= 6 ; Cv ++, Number = 3)
    if (Number % Digit = 0)
        cout<< Number / Digit ;
        cout>>endl;
    else
        cout<< Number + Digit <<endl; }

```

5. Write the output of the following.

```
voidfunnystr(char *s, int n = 2)
```

3

```
{    int i = n;
    while(i < strlen(s))
    {
        s[i] = '-';
        i = i + n;
    }
    i = 0;
    while(s[i] != '\0')
    {    if(s[i] > 'A' && s[i] < 'P')
        s[i] = tolower(s[i]);
        else if(s[i] > 'a' && s[i] < 'p')
        {
            if(i % 3 == 0)
                s[i] = tolower(s[i-1]);
            else
                s[i] = tolower(s[i]);
        }
        i++;
    }
}void main()
{    charstr[] = "MiCroSoFT";
    funnystr(str,3);
    cout<<str;
}
```

6. Define a class **BALANCED_MEAL** in C++ with following description:

Private Members:

Access_no	Integer
Food_Name	String of 25 characters
Calories	Integer
Food_type	String
Cost	Float

AssignAccess() Generates random numbers between 10 and 99 and return it.

Public Members

A function **INTAKE()** to allow the user to enter the values of Food_Name, Calories, Food_type, cost and call function **AssignAccess()** to assign Access_no.

A function **OUTPUT()** to allow user to view the content of all the data members, if the Food_type is **Fruit**. Otherwise display message,

“Display only for fruit”

a) Define a class Test in C++ with following description:

Private Members

- i) TestCode of type integer
- ii) Description of type string
- iii) NoCandidate of type integer
- iv) CenterReqd (number of centers required) of type integer
- v) A member function CALCNTR() to calculate and return the number of centers as $(\text{NoCandidate}/100+1)$

Public Members

- i) A function SCHEDULE() to allow user to enter values for TestCode, Description, NoCandidate& call function CALCNTR() to calculate the number of centres.
- ii) A function DISPTTEST () to allow user to view the content of all the data members

b) Answer the question (i) and (ii) after going through the following class :

```
class Exam
{
int year;
public:
Exam(int y) // Constructor 1
{ year=y;};
Exam(Exam &t) // Constructor 2
};
```

i) Create an object, such that it invokes Constructor 1.

ii) Write complete definition for Constructor 2.

Answer the questions (i) and (ii) after going through the following class: 2

```
class Seminar
```

```
{
```

```
int Time;
```

```
public:
```

```
Seminar() //Function 1
```

```
{
```

```
Time=30;cout<<"Seminar starts now"<<end1;
```

```
}
```

```
void Lecture() //Function 2
```

```
{
```

```
cout<<"Lectures in the seminar on"<<end1;
```

```
}
```

```
Seminar(int Duration) //Function 3
```

```
{
```

```
Time=Duration;cout<<"Seminar starts now"<<end1;
```

```
}
```

```
};
```

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.

HOLIDAY HOME WORKS FOR CLASS XII C

a) What type of network would you suggest for the following type of requirements in an organization?

i) Around 200 computers in two different buildings adjacent to one another are to be connected.

ii) The cost of network should not be very high.

iii) It should be fairly easy to implement.

b) Mr. Vasu is transferring data to a large distance via cable connection and he wants to amplify the signal transmitting over a network. What device will be useful for him?

c) What do you mean by network topology? Write one advantage and one disadvantage of star topology.

e) Which of the following technologies require line-of site between the transmitter and receiver?

a) Satellite b) Fiber Optic c) Microwave d) Co-axial Cable

g) Which protocol is used for transfer files over the internet?

h) Differentiate between and tags with example..

i)What are the use of the following tags-

<TITLE>, <A>,
, <U>

j)Rajan created a table named **Item**, he wants to see those Items whose price is between 200 and 800.

He wrote a query- `SELECT * FROM Item WHOSEprice>200 OR <800;`

Help Rajan to run the query by removing the errors from the query by rewriting it.

k. Room_No, Cust_Name, Room_Type and Room_Rent of table “**HOTEL**” are given below:

Table :**HOTEL**

Room_No	Cust_Name	Room_Type	Room_Rent
204	Rajesh	Single	700
308	Anuja	Double AC	1600
105	Vinamra	Single NAC	500
202	Soma		

Based on this information, find output of the following queries:

1.`SELECTRoom_Type, SUM(Room_Rent) FROM hotel GROUP BY Room_Type;`

2.`SELECTRoom_no FROM hotel WHERE Cust_Name LIKE ‘%n%’;`

I. Differentiate between CHAR and VARCHAR datatypes?

m) Consider the table HOSPITAL given below. Write command in SQL for Following questions-

NO.	NAME	Age	Department	Dateofadm	Charges	Sex
1	Tarun	12	Surgery	01/01/11	300	M
2	Zubin	36	Orthopedic	12/01/11	250	F
3	Ankita	16	Orthopedic	24/02/11	300	F
4	Sanju	18	Cardiology	22/03/11	400	M

(i) To show all information about the patients of cardiology department.

(ii) To list the names of female patients who are in orthopedic department.

iii) To display Patient's name, charges ,age for only male patients

(iv) To count the number of patients with age>30.

Given the following teacher relation : Write SQL commands for question.

Teacher Table

No.	Name	Department	DateofJoining	Salary	Sex
1	Raja	Computer	21/5/98	8000	M
2	Sangeeta	History	21/5/97	9000	F
3	Ritu	Sociology	29/8/98	8000	F

Write SQL queries for the following

(1)show the list of Computer and history department.

(2) To list the name of female in History department.

(3) To list all names of teacher with date of admission in ascending order.

(4) To display Teachers name,department and salary of female teachers.

o) Write any three TCL Commands of Mysql.

p) Tara Nathani wants to upload and download files from/to a remote internet server, write the name of the relevant communication protocol, which will let her do the same.

q) Two doctors in the same room have connected their Palm Tops using Bluetooth for working on a Group presentation. Out of the following, what kind of Network they have formed?

LAN, MAN, PAN, WAN

(r) Arrange the following communication channels in ascending order of their data transmission rates.

Ethernet Cable, Optical Fiber, Telephone Cable, Co-axial Cable

--	--	--	--

s) Jai Khanna is confused between the terms Domain Name and URL. Explain the difference with the help of appropriate examples of each.

t) Differentiate between Star and Bus Topology of networks.

u) Which HTML tag inserts a horizontal straight line on a web page?

(v) How is <P> tag different from
 tag in HTML?

w) Pooja, a students of class XI, created a table "Book". Price is a column of this table.

To find the details of books whose prices have not been entered she wrote the Following query:

```
Select * from Book where Price = NULL;
```

Help Pooja to run the query by removing the errors from the query and rewriting it.

(x) Rama is not able to change a value in a column to NULL. What constraint did she specify when she created the table?

y) The LastName column of a table "Directory" is given below:

LastName

Batra

Sehgal

Bhatia

Sharma

Mehta

Based on this information, find the output of the following queries:

a) SELECT lastname FROM Directory WHERE lastname like "_a%";

b)SELECTlastname FROM Directory WHERE lastname not like "%a";