

21/01/13. ~~FA 3f~~ XII. 11nd pre board.

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SECOND COMMON PRE BOARD EXAMINATION

CLASS:XII

TIME:3 Hrs

SUB:COMPUTER SCIENCE

MaxMarks:70

Instructions:

- (i) All questions are compulsory.
- (ii) Programming language: C++
- (iii) Total pages 7

- 1 a) What is the difference between *call by reference* & *call by value* method in a user defined function in C++? Explain it with suitable example. (2)
- b) Name the header file to which the following belong : (1)
- (i) gotoxy()
 - (ii) gets()
- c) Rewrite the following program after removing all the syntactical errors (if any), underlining each correction. : (2)

```
include<iostream.h>
typedef char[40] string;
void main()
{ string S="Australia";
L=strlen(S);
cout<<"String "<<S<<" has '<<L<<"Characters"<<endl; }
```

- d) Find the output of the following program: (3)

```
#include <iostream.h>
#include<conio.h>
void main()
{
int X[ ]={10,25,30,55,110};
int *p= X;
while(*p<110)
{
if(*p%3)
*p=*p+1;
else
*p=*p+2;
p++;
}
for( int i=4;i>=1;i--)
{
cout<<X[i]<<"*";
}
```

```

if(i%3==0)
cout<<endl;
}
cout<< X[0]*3<<endl;
}

```

e) Find the output of the following program:

```

#include <iostream.h>
#include<conio.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]='#';
else
{
char Temp=Str[C];
Str[C]=Str[L-C-1];
Str[L-C-1]=Temp;
}
}
void main( )
{
char Message[ ]="SteveJobs";
Secret(Message);
cout<<Message<<endl;
getch();
}

```

f) Study the following program and select the possible output from it with reason:

```

#include<iostream.h>
#include<stdlib.h>
#include<conio.h>
void main( )
{
clrscr( );
randomize( );
int Mynum,Max=4;
Mynum=20+random(Max);
for(int N=Mynum;N<=25;N++)
cout<<N<<"*"; }

```

i) 20*21*22*23*24*25
ii) 22*23*24*25*
iii) 23*24*
iv) 21*22*23*24*25

2. a) What is *constructor overloading*? Support your answer with example.

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

```

class ROOM {

```

```

int l;
int w;
int h;
public:
    ROOM() // function 1
    {
        l=0;
        w=0;
        h=0;
    }

    ROOM(int x) // function 2
    {
        l=x;
        w=x;
        h=x;
    }

    ROOM(int x, int y, int z) // function 3
    {
        l=x;
        w=y;
        h=z;
    }

    ~ROOM() // function 4
    {
    }

};

```

- (i) In Object Oriented programming, what is function 2 referred as and when does it get invoked/called? Write suitable code for calling. (1)
- (ii) In Object Oriented Programming, what is function 4 referred as and when does it get invoked/called? Write suitable code for calling. (1)

c) Define a class **TAXPAYER** in C++ with following description : (4)

Private members :

- Name of type string
- PanNo of type string
- Taxabincm (Taxable income) of type float
- TotTax of type double
- A function CompTax() to calculate tax according to the following slab:

Taxable Income	Tax%
Up to 160000	0
>160000 and <=300000	5
>300000 and <=500000	10
>500000	15

Public members :

- A parameterized constructor to initialize all the members
- A function INTAX() to enter data for the tax payer and call function CompTax() to assign TotTax.
- A function OUTAX() to allow user to view the content of all the data members.