

**PIXELES Classes** is a leading institute in Delhi to provide best coaching classes for BCA and MCA (IGNOU) students only. We have been teaching BCA & MCA (IGNOU) students for 13 Years with enthusiasm. We have developed a special methodology to teach students that will give smart knowledge as well as success in examination.

Every year a million of students are enrolled for BCA & MCA especially in India. 50 % of students leave their courses due to lack of study materials and resources.

According to university the courses are ideal for students who want to make career in technical field.

IGNOU provides a lot of study materials that provides deep knowledge of subjects.

**[www.pixelesindia.com](http://www.pixelesindia.com)**  
**Uttam Nagar & Nangloi**  
**Contact No:- 9213327975, 8750321695, 9716339580**

**BCSL-032**

1. Write a C++ program to create Shape class. Derive Circle and Rectangle classes from this (Shape) class. Define proper constructors for these classes. Declare Area method in Circle and Rectangle classes to find the area of that shape, and implement it with proper comments.

**Ans:**

```
#include<iostream.h>
#include<conio.h>
class shape
{
public:
void shape1()
{
cout<<"\nThis is Circle\n";
}
void shape2()
{
cout<<"\nThis is Rectangle\n";
}

};
class circle:public shape
{
float r,ar;
public:
circle(float a)
{
r=a;
}
void area()
{
shape1();
ar=3.14*r*r;
}
```

```

cout<<"Area of Circle="<<ar<<endl;
}
};
class rectangle:public shape
{
int w,l,ar;
public:
rectangle(int a, int b)
{
w=a;
l=b;
}
void area()
{
shape2();
cout<<"Area of recatangle="<<w*l;
}
};

void main()
{
clrscr();
circle cr(7.5);
cr.area();
rectangle rt(3.2,6.4);
rt.area();
getch();
}

```

2. Write a C++ program to create Student class. Define constructor for this class. Also define a method to display the student detail and name of five subjects taken by him/her in the current semester. Make necessary assumptions. 40

Ans:  
#include<iostream.h>  
#include<conio.h>

```

#include<string.h>
#include<stdio.h>
class student
{
char *n;
int enrol,i;
char *course;
char sub[5][20];
public:
student(char *name,int enr,char *c)
{
strcpy(n,name);
enrol=enr;
strcpy(course,c);
}
void input_sub()
{
cout<<"Enter the name of Subjects";
for(i=0;i<=4;i++)
gets(sub[i]);
}

void disp()
{
cout<<"Enrol="<<enrol<<endl;
cout<<"Name="<<n<<endl;
cout<<"Course="<<course<<endl;
cout<<"Subject Name:"<<endl;
for(i=0;i<=4;i++)
{
cout<<sub[i]<<endl;
}
}
};

```

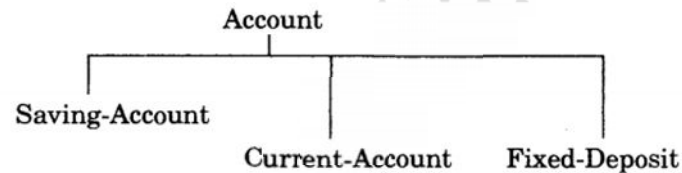
```

void main()
{
int ar[]={65,76,87,67,89};
clrscr();

student st("Sumona",1,"MCA");
st.input_sub();
st.disp();
getch();
}

```

3. Write a C++ program to implement the following class hierarchy:  
40



Ans:

```

#include<iostream.h>
#include<conio.h>
class account
{
int acno;
char *cname;
char *cadd;
public:
void input()
{
cout<<"Enter the Acno";
cin>>acno;
cout<<"Enter the Cname";
cin>>cname;
cout<<"Enter customer Address";
cin>>cadd;
}
}

```

```

void disp()
{
cout<<"Account No="<<acno<<endl;
cout<<"CName="<<cname<<endl;
cout<<"CAddress="<<cadd<<endl;
}
};
class saving_ac:public account
{
int rate,obal;
public:
void input()
{
account::input();
cout<<"Enter rate of interest";
cin>>rate;
cout<<"Enter the obal";
cin>>obal;
}
void disp()
{
account::disp();
cout<<"Rate of interest="<<rate<<endl;
cout<<"Opening balance="<<obal<<endl;
}
};
class current_ac:public account
{
int olimit;
public:
void input()
{
account::input();
cout<<"enter the overdraft limit";
cin>>olimit;
}
}

```

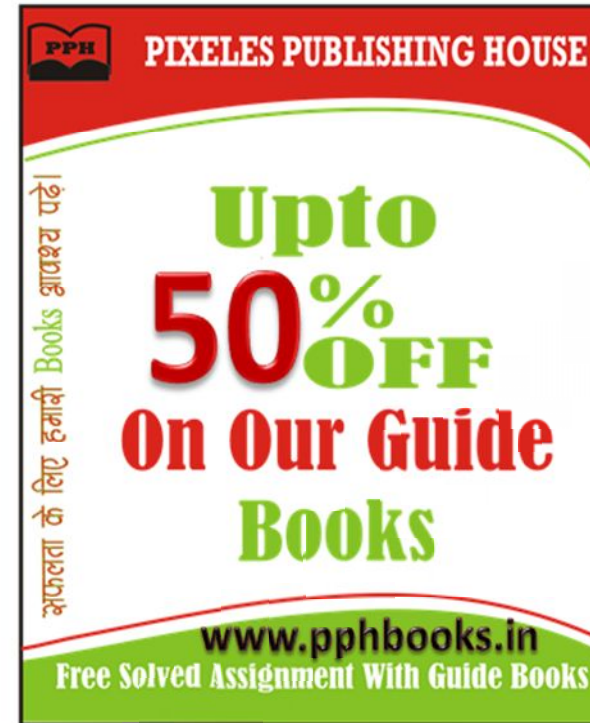
```
void disp()
{
account::disp();
cout<<"Over draft Limit"<<olimit;
}
};
class fixed_ac:public account
{
int term;
public:
void input()
{
account::input();
cout<<"Enter term of diposit";
cin>>term;
}
void disp()
{
account::input();
cout<<"Terms of Deposit-"<<term;
}
};
void main()
{
int ch;
clrscr();
cout<<" enter your choice(1-Saving Ac, 2-Current Ac,3-Fixed Ac)"<<endl;
cin>>ch;
switch(ch)
{
case 1:
saving_ac sa;
sa.input();
sa.disp();
break;
case 2:
```

```
current_ac ca;
ca.input();
ca.disp();
break;
case 3:
fixed_ac fa;
fa.input();
fa.disp();
break;
default:
cout<<"wrong choice";
}
getch();
}
```

4. Write a C++ program to create Account class. Define constructor for this class. Define a method to find the simple interest. Make necessary assumptions.

```
Ans:
#include<iostream.h>
#include<conio.h>
class account
{
int acno,rate,bal;
char *cname;
public:
account(int r,int b)
{
rate=r;
baf=b;
}
void input()
{
cout<<"Enter the Acno";
cin>>acno;
cout<<"Enter the Cname";
cin>>cname;
```

```
}  
void calc_int()  
{  
bal=bal+ (bal*rate)/100;  
}  
  
void disp()  
{  
cout<<"Account No="<<acno<<endl;  
cout<<"CName="<<cname<<endl;  
cout<<"Total="<<bal;  
}  
};  
main()  
{  
clrscr();  
account ac(5,5000);  
ac.input();  
ac.calc_int();  
ac.disp();  
getch();  
}
```



PPH is a unit of **PIXELES Classes**. When we started **PIXELES Classes**, we realised that students face various problems those are enrolled in **IGNOU**, because there are lack of study materials in market. Some study materials available in market do not cover student's requirements and pattern of examination.

We have published special books for **BCA (IGNOU)** students only. It covers pattern of examination and needs of students. It is an **Exam Master for BCA (IGNOU)** students that helps to improve knowledge and secure good marks in examination. **Guide books are published by PIXELES PUBLISHING HOUSE, New Delhi.** This Guide Book is prepared by our experienced faculties.

## Features of Guide Books

- SOLVED ASSIGNMENTS OF 2017-18
- Written in plain English.
- Written by experience faculties
- Easy to learn.
- Throughout Study.
- EXAM ORIENTED.
- Questions & Answers format.
- Previous Year Solved Question Papers.
- LOW COST
- Guess Question Sets for Examination

\*\*\*