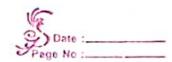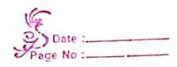LAB-3

Create a class Book which contains four members : name , author , price , num-pages Include a constructor to set the values for the members. Include methods to set and get the details of the objects. Include a toString() method that could display the complete details of the book. Develop a Java program to create n book objects.

```java
import java.util.Scanner;
class Books
{
    String title;
    String author;
    int price;
    int numpages;

    Books(String title, String author, int price,
              int numpages)
    {
        this.title = title;
        this.author = author;
        this.price = price;
        this.numpages = numpages;
    }
```
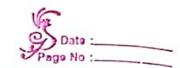
```java
public String toString()
{
    String title, author, price, numpages;
    title = "\nBook name: " + this.title +
                    "\n";
    author = "Author name: " + this.author +
                    "\n";
    price = "Price: " + this.price + "\n";
    numpages = "Number of pages: " +
                    this.numpages;
}
}

class Main
{
    public static void main(String args[])
    {
        Scanner s = new Scanner(System.in);
        int n, i;
        String title, author;
        int price, numpages;

        System.out.println("Enter the no. of
                        books:");
        n = s.nextInt();

        Books b[];
        b = new Books[n];
```

```java
for(i=0; i<n; i++)
{
    System.out.println("Enter the title,
        author name, price and
        number of pages of book: ");
    title = s.next();
    author = s.next();
    price = s.nextInt();
    numpages = s.nextInt();
    b[i] = new Books(title, author,
        price, numpages);
}

for(i=0; i<n; i++)
{
    System.out.println(b[i]);
}
}
}
```

OUTPUT :

Enter the no. of books:
3
Enter the title, author name , price and
number of pages of book :
Hamlet WilliamShakespeare 500 480
Enter the title, author name , price and
number of pages of book:
HarryPotter JKRowling 550 580
Enter the title, author name , price and
number of pages of book :
1984 George Orwell 600 520

Book name : Hamlet
Author name : WilliamShakespeare
Price : 500
Number of pages : 480

Book name : HarryPotter
Author name: JKRowling
Price : 550
Number of pages : 580

Book name : 1984
Author name: George Orwell
Price : 600
Number of pages : 520

2. Method Overloading

```java
class OverloadDemo {
    void test () {
        System.out.println ("No parameters");
    }
    void test (int a) {
        System.out.println ("a: " + a);
    }
    void test (int a, int b) {
        System.out.println (" a and b: " + a + " " + b);
    }

    double test (double a) {
        System.out.println ("double. a: " + a);
        return a*a;
    }
}

class Overload
{
    public static void main (String args [])
    {
        OverloadDemo ob = new OverloadDemo ();
        double result;
        ob.test ();
        ob.test (10);
        ob.test (10, 20);
        result = ob.test (123.2);
        System.out.println ("ob.test (123.2): " +
                                result);
    }
}
```

OUTPUT:

No parameters
a: 10
a and b: 10 20
double a: 123.25
Result of ob. test (123.25): 15190.5625

26.12.27