LABPROGRAM – 1

OBSERVATION

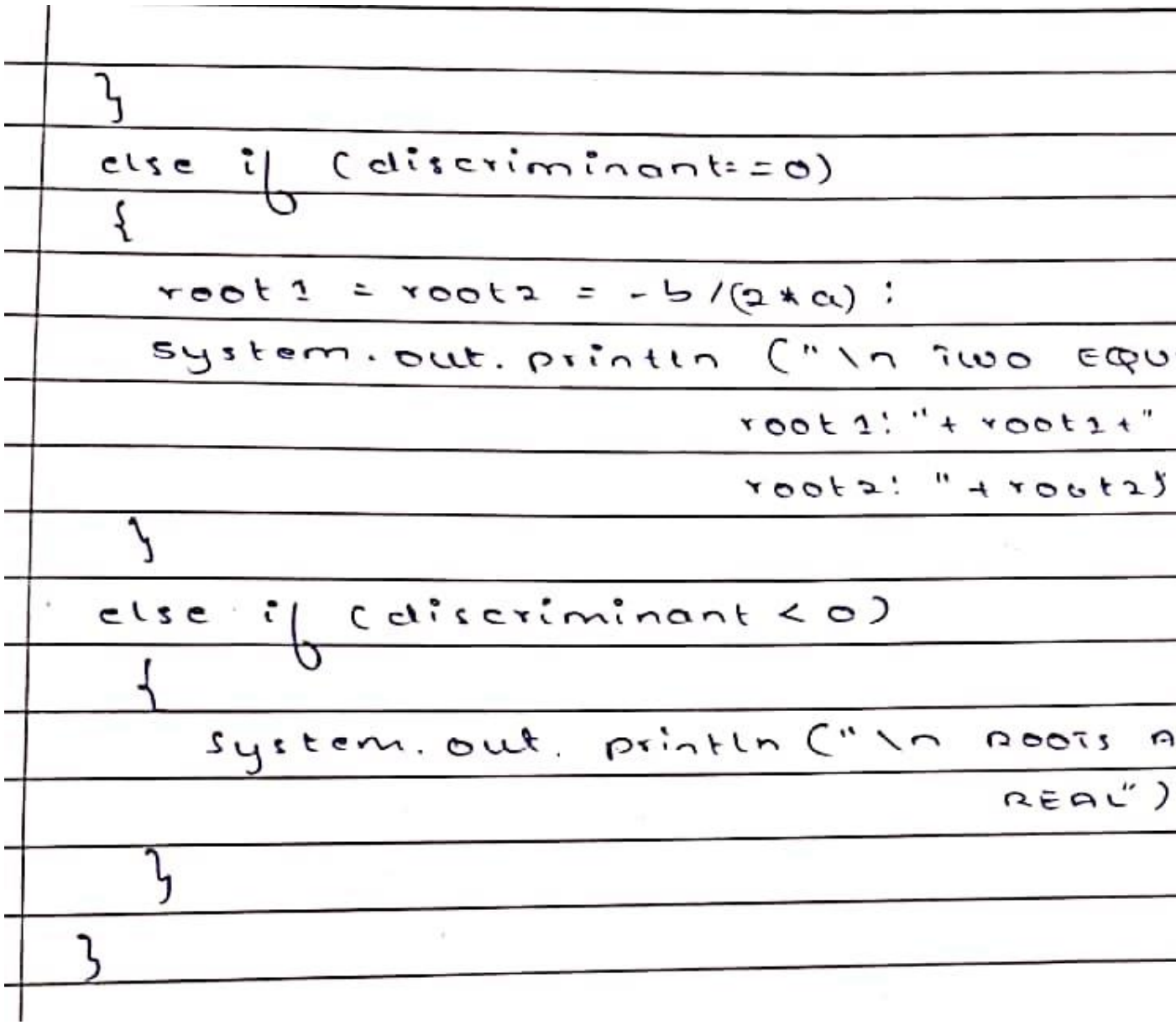
29/09/2020.

WEEK - 3 (LAB)

OOJ. LAB.

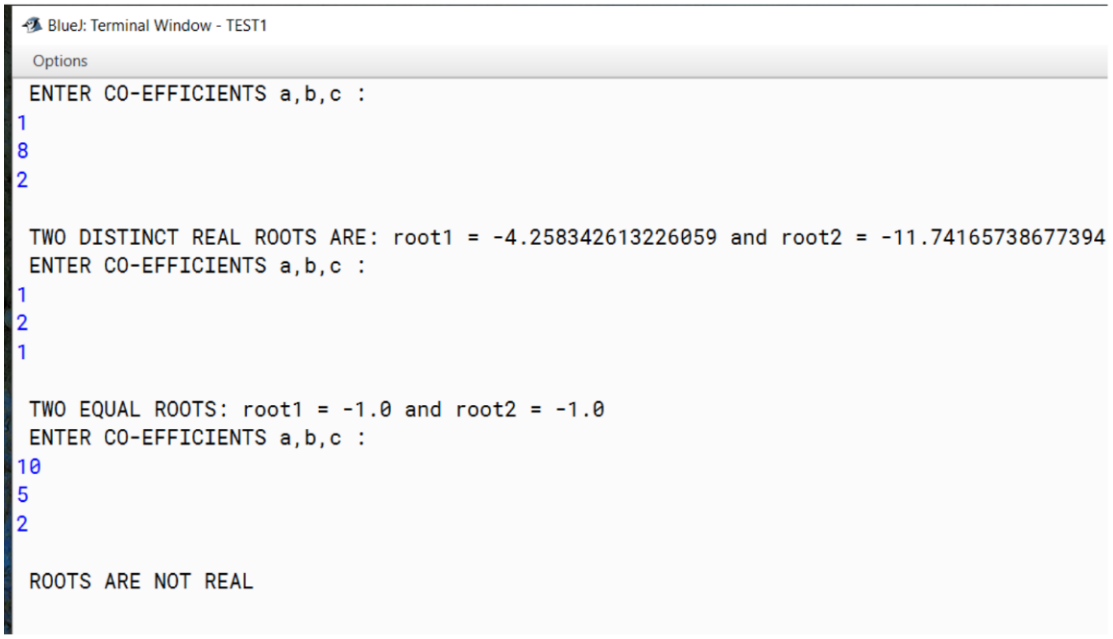
(1) Quadratic Eqn. { d>0 d<0 d=0 }

```
import java.util.Scanner;
public class QuadraticEquation {
    private static Scanner sc;
    public static void main (
    {
        double a,b,c;
        double root1, root2, imaginary
        sc = new Scanner (System.in
        System.out.print (" Put co-eff of Q.E "
        a = sc.nextDouble ();
        b = sc.nextDouble ();
        c = sc.nextDouble ();
        discriminant = (b*b) - (4*a*c
        if (discriminant > 0)
        {
            root1 = (-b + Math.sqrt (discrim
            root2 = (-b + Math.sqrt (discriminan
```



```
}
else if (discriminant==0)
{
  root1 = root2 = -b/(2*a);
  System.out.println ("\n two EQU
                      root1: "+root1+"
                      root2: "+root2);
}
else if (discriminant < 0)
{
   System.out.println ("\n ROOTS A
                       REAL");
}
}
```

OUTPUT



LABPROGRAM – 2

OBSERVATION

LAB 2

06/10/2020.

```
import java.util.Scanner;
class student {
    private string usn;
    private string name;
    private int[] credits;
    private double[] marks;
    private int n;

    void getDetails() {
        Scanner sc = new Scanner(s
        System.out.println("Enter no
                                subjects
```

```
n = sc.nextInt();
credits = new int[n];
marks = new double[n];
System.out.println("Enter student
usn = sc.next();
System.out.println("Enter student
name = sc.next();

for(int i=0; i<n; i++){
    System.out.println("Enter credits
    marks of subject" + (i+1) + ":");
    credits[i] = sc.nextInt();
    marks[i] = sc.nextDouble();
    }
}

void printDetails(){
  System.out.println("student details
                        follows");
  System.out.println("Name: " + name
                        + usn);
  for(int i=0; i<n; i++){
    System.out.println("Sub" + (i+1) + "M
    + marks[i] + "\t Credits is: " + cred
  }
}
```

```
void sgpaclac () {
    double sgpa;
    int[] gper = new int[n];
    int credsum = 0, gp, spger = 0;
for (int i=0 ; i<n ; i++){
    credsum += credits[i];
    if (marks[i] >= 90 ) {
        gp = 10;
    }
    else if (marks[i] >= 80) {
        gp = 9;
    }
    else if (marks[i] >= 70) {
        gp = 8;
    }
    else if (marks[i] >= 60) {
        gp = 7;
    }
    else if (marks[i] >= 50) {
        gp = 5;
    }
    else if (marks[i] >= 40 ) {
        gp = 4;
    }
```

```
        sgpa = spger / (creedsum + 0.0);
    System.out.println(" student's sgp
    }
}

class Main {
    public static void main(String[]
        Student s1 = new Student()

        s1.getDetails();
        s1.printDetails();
        s1.sgpaclac();
    }
}
```

OUTPUT

```
Student details are as follows:
Name: KRISHNA_MOHAN_DULLOLLI    usn: 1BM19CS075
Sub1 Marks is: 100.0    Credit is: 4
Sub2 Marks is: 100.0    Credit is: 4
Sub3 Marks is: 100.0    Credit is: 4
Sub4 Marks is: 100.0    Credit is: 4
Sub5 Marks is: 100.0    Credit is: 3
Sub6 Marks is: 100.0    Credit is: 3
Sub7 Marks is: 100.0    Credit is: 1
Sub8 Marks is: 100.0    Credit is: 1
Student's sgpa is: 10.0
```

LABPROGRAM – 3

OBSERVATION

13/10/2020

LAB-3

```
import java.util.scanner;
class book{
        string author;
        string name;
        string no of pgs;
        string price;

        scanner sc = new scanner

        void getDetails(){
            system.out.println(" aut
            author = sc.next();
            system.out.println(" boo
            name = sc.next();
```

```
System.out.println("Num of pages E
noofpgs = sc.next();
price = sc.next();
}

Public string toString(){
    return("AUTHOR:" + author + " \n
        + name + "\n Pages :" + noo
        Price' + price);
    }

book() {
    author = "xyz";
    name   = "hirani";
    noofpgs = "56 pgs";
    price  = "100rs";
    }

void display() {
    system.out.println("AUTHOR :" +
    system.out.println("Book name :
    system.out.println("Num pages
    system.out.println("PRICE :" +
    }
```

```
book s1 = new book();
System.out.println("To show H
            included default const
s1.display();

System.out.println("\n\n Enter
n=sc.nextInt();
book b[] = new book[n];
for(int i=0; i<n ; i++){
  System.out.println("Enter boo
  b[i]: new book();
  b[i].getDetails();
}

System.out.println("All Book de
                    you entered
for(int i=0; i<n; i++){
  System.out.println(" Book"+
  System.out.println(b[i].to
}
}
```

OUTPUT

```
ALL BOOK DETAILS THAT YOU ENTERED
---------------------------------


************************
BOOOK :1
AUTHOR :RAM
BOOK NAME :RAMULU_SAIT
PAGES :100
PRICE :100
```

LABPROGRAM – 4

OBSERVATION

03/11/2020;

LABS

(1). /* abstract class shape */

```
import java.util.scanner;
abstract class shape {
        double dim1, dim2;
    shape (double a, double b)
        dim1 = a;
        dim2 = b;
    }
    abstract double printarea(){

class rectangle extends shape {
rectangle (double a, double b) {
    super (a,b) }

double printarea() {
    System.out.println("AREA OF
    return dim1 * dim2;
} }
```

```
class triangle extends shape{
 triangle (double a, double b ) {
        super (a,b) }

 double printarea ( ) {
      system.out.println ("AREA OF TRIAN
      return  dim1* dim2 / 2 ;
    }
}

class circle extends shape {
  circle (double a, double b ) {
       super (a,b);
        }
   double printarea ( ) {
    system. out. println ("AREA OF CIR
      return  ( 3.14 * (dim1 * dim2)
       }
   }

class shapeMain {
  public static void main (String ss[
  rectangle r = new rectangle (a: 10
  triangle  t = new triangle (a: 10
  circle    c = new circle (a: 1

system. out. println ("  " + r. printarea
system. out. println ("_ " + t. printarea
System. out. println ("  " + c. printare
```

OUTPUT

```
AREA OF RECTANGLE : 100.0
AREA OF CIRCLE : 314.0
AREA OF TRIANGLE : 50.0

Process finished with exit code 0
```

LABPROGRAM – 5

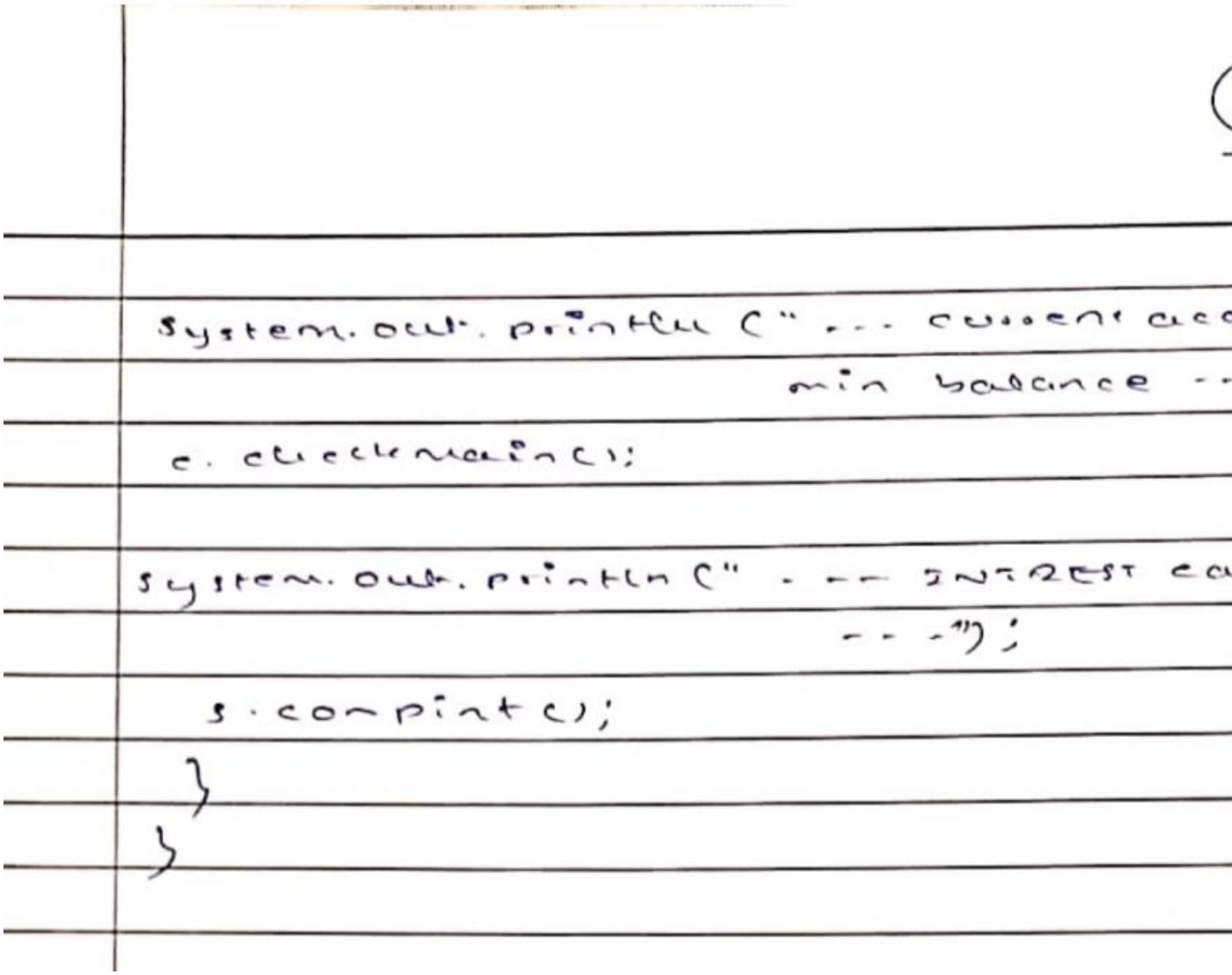
OBSERVATION

(5) /* Bank account */

```
import java.util.Scanner;

class Bank {
    String Bankname;
    }

class account3 extends bank{
    Scanner sc = new Scanner(System.
    String name, acctype;
    double accnum;
    double saccnum, caccunum;
    double ci;
    double rate, principal, year;

void setd(){
    System.out.println("customer nam
    name : sc.next();
    System.out.print("Account type :
    acctype : sc.next();
    System.out.print("savings acc nu
    saccnum = sc.nextDouble();
    System.out.print("current acc n
    caccnum = sc.nextDouble();
    }
    }

class savings extends account3{
```

```
else if (cid > cid) {
    ci = cid - cib;
    pbalance2 = pbalance2 - cib;
    System.out.println("\n... Acc Ba
                        + pbalance2
    }
else
    System.out.println(" COMP ING 2
        AND ACCOUNT BALANCE IS " + p
    }
}

class current extends account2 {
    Scanner sc = new Scanner(Syste
double deposit, withdraw, pbalance

void setd2() {
    System.out.print("\n-- current-
    System.out.print(" present balan
    pbalance2 = sc.nextDouble();
    System.out.print(" Deposited :")
     deposit = sc.nextDouble();
    System.out.print("withdraw");
    withdrawn = sc.nextDouble();
    pbalance2 = (pbalance2 + deposit)
}
```

```
if (pbalance2 >= min){
System.out.print("min bal is maintained
}
else if (pbalance2 < min){
 System.out.print("min bal not maintd"
 System.out.print(" penalty " + penalty);
 System.out.print("original value :"+pb
pbalance2 = pbalance2 - penalty;
System.out.println("After ded bal" + pb
}
else
 System.out.println("Invalid amount in
}
}

class BankMain{
 public static void main(String ss[]){
  Scanner sc = new Scanner(System.in)
  account1 a = new account1();
  savings s = new savings();
  current c = new current();
  a.setd();

System.out.println("\n TRANSACTION DETA
  s.setd1();
  c.setd2();
System.out.println("\n...Bank updated Ba
System.out.println("savings acc num ("a.
  "+" -> " + s.pbalance1 "+R1);
```


System.out.println(" ... current acc
min balance ...
c.checkMain();
System.out.println(" .-- INTEREST ca
---");
s.compInt();
}
}

Output

```
CUSTOMER NAME :ABC
ACCOUNT TYPE :SAVINGS
SAVINGS ACC NUM : 123456789
CURRENT ACC NUM :987654321

TRANSACTION DETAILS

----SAVINGS ACCOUNT----
PRESENT BALANCE :10000
DEPOSITED :1000
WITHDRAWN :1200

----CURRENT ACCOUNT----
PRESENT BALANCE :10000
DEPOSITED :1200
WITHDRAWN :5000
```

```
----BANK BALANCE AFTER TRANSACTIONS----
SAVINGS ACCOUNT NUM(1.23456789E8)  -> 9800.0Rs
CURRENT ACCOUNT NUM(9.87654321E8)  -> 6200.0Rs

----CURRENT ACCOUNT MINIMUM BALANCE CHECK----
MINIMUM BALANCE IS MAINTAINED AND ACC BALANCE IS :6200.0

----INTEREST CALCULATION OF SAVINGS ACCOUNT----

****DETAILS OF LEND AMOUNT****
ENTER AMOUNT DEPOSITED :1000
RATE OF DEPOSITION :5
NO OF YEARS DEPOSITED :1

****DETAILS OF BORROWED AMOUNT****
ENTER AMOUNT BORROWED :1000
RATE OF BORROWED :4
NO OF YEARS BORROWED :1

----ACC BALANCE---- 10850.0
```