GURU GOBIND SINGH PUBLIC SCHOOL

SECTOR – V/B, BOKARO STEEL CITY

CLASS-XII INFORMATICS PRACTICES

Chapter 1

1. What is meant by Topology? Name some popular topologies.
2. Define a network.
3 What are the similarities and differences between bus and tree topologies?
4 What are the limitations of star topology?
5 What do you understand by domain name resolution?
6 What are communication channels? Discuss various channels available for networks?
7 Advantages and disadvantages of the followings :

i. optic fiber
ii. coaxial cables
iii. twisted pair cables
iv. radio waves
v. microwaves
vi. Satellites

8 Define Hub.
9 Define switch.
10 What is IDE? Name two IDE for Programming in java.
11 Name any two type of Tokens available in Java
12 Find the output of the following code snippet written in java public static void main(String [ ]args)

```
{
long a=78345,s1=0,s2=0,r;
while(a>0)
{
r=a%10;
if (r%4==0)
s1+= r;
else
s2+=r;
a/=10;
}
System.out.println("S1 ="+ s1);
System.out.println("S2 ="+ s2);
}
```

13 Correct the errors in the following program segment written in JAVA. You are just required to write the corrected code, underlying the corrections made.

```
public Static Void Main (String [] args)
{
Integer Nos = 100;
while (Nos => 45)
{
If (Nos % 5 = 0);
Nos+=10;
otherwise
Nos + = 20;
}
}
```

14. What will be output of the following code:

```
byte b;
double d= 417.35;
b= (byte) d;
system.out.println(b)
```

15 Given the value of a variable, write a statement,without using if construct, which will produce the absolute value of a variable.
16. What is wrong with the following code fragment?

```
Switch (x)
```

```
{
case 1:
n1= 10;
n2= 20;
case 2:
n3=30;
break;
n4= 40;
}
```

17. What will be the output of the following program code?

```
int m = 100;
int n = 300;
while(++m < --n);
System.out.println(m+" "+ n);
```

18. What does the following fragment display

```
String s = "Six:" + 3+ 3;
System.out.println(s);
```

19 What is the output of the following code?

```
String s = new string();
System.out.println("s = " + s);
```

20 What will be the output of the following code snippet?

```
int x= 10;
int y = 20;
if ((x<y)||(x=5) > 10)
System.out.println(x);
else
System.out.println(y);
```

21 State the output of the following program:

```
public static void main(String args[ ])
{
int x = 10;
int y = 15;
System.ou.println((x>y)? 3.14: 3);
}
```

22 State the output of the following program:

```
public static void main(String args[ ])
{
int x = 10;
float y = 10.0;
System.ou.println((x>y)? true: false);
}
```

23. Given a pacakage named EDU.student, how would you import a class named Test contained in this package? Write one line statement.

24 Consider the following class definition:

```
Class Student
{
abstract double result( )
}
```

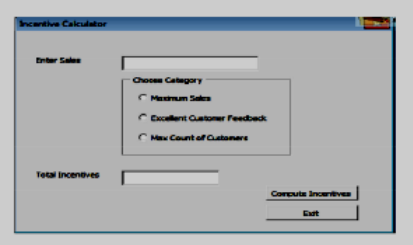
This code will not compile since a keyword is missing in the first line. What is the keyword?

25 Can an abstract method be declared final? Yes or No.

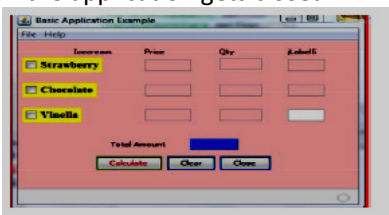
26 Create a Java Desktop Application to find the incentive (%) of Sales for a Sales Person on the basis of following feedbacks

Feedback	Feedback Incentive (%)
Maximum Sales	10
Excellent Customer Feedback	8
Maximum Count Customer	5

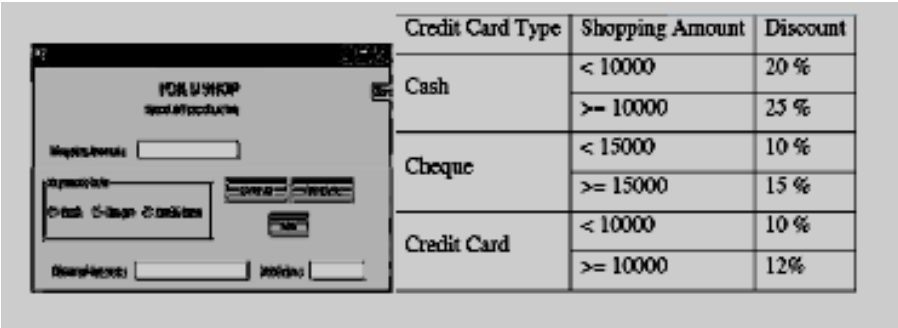
Note: that the sales entry should not be space.Calculate the total incentive as :Sales amount* Incentive. The feedback will be implemented in JCheckBoxcontrols.Using a JButton's (Compute Incentive) click event handler,display the total incentives in a JTextField control. Assume the nomenclature of the swing components of your own.
Note that the JFrame from IDE window will be shown as given:



27. Assume the following interface built using Netbeans used for bill calculation of a ice-cream parlor. The parlor offers three verities of ice-cream – vanilla, strawberry, chocolate. Vanilla icecream costs Rs. 30, Strawberry Rs. 35 and Chocolate Rs. 50. A customer can chose one or more ice-creams, with quantities more than one for each of the variety chosen. To calculate the bill parlor manager selects the appropriate check boxes according to the verities of ice-cream chosen by the customer and enter their respective quantities.
Write Java code for the following:
a. On the click event of the button 'Calculate', the application finds and displays the total bill of the customer. It first displays the rate of various ice -creams in the respective text fields. If a user doesn't select a check box, the respective ice-cream rate must become zero. The bill is calculated by multiplying the various quantities with their respective rate and later adding them all.
b. On the Click event of the clear button all the text fields and the check boxes get cleared.
c. On the click event of the close button the application gets closed



28 The FOR U SHOP has computerized its billing. A new bill is generated for each customer. The shop allows three different payment modes. The discount is given based on the payment mode.



Credit Card Type	Shopping Amount	Discount
Cash	< 10000	20 %
	>= 10000	25 %
Cheque	< 15000	10 %
	>= 15000	15 %
Credit Card	< 10000	10 %
	>= 10000	12%

a.Write the code for the CmdClear Button to clear all the Text Fields.
b) Write the code for the CmdCalc Button to display the Discount Amount and Net Price in the TxtDisc and the TxtNet Text Fields respectively
(a) active (b) static (c) dynamic (d) none of the above

29. Identify the web server software from the following options:
(a) Apache (b) MS Word (c) HTML (d) Mozilla Firefox

30 The address of a resource on the net is known as:
(a) ISP (b) HTTP (c) URL (d) WWW

31 (a)Observe the following table carefully and write the names of the most appropriate columns, which can be considered as (i) candidate keys and (ii) primary key :
(b) B) Consider the following DEPT and EMPLOYEE tables. Write SQL queries for (i) to (iv) and find outputs for SQL queries (v) to (viii).

Table : DEPT

DCODE	DEPARTMENT	LOCATION
D01	INFRASTRUCTURE	DELHI
D02	MARKETING	DELHI
D03	MEDIA	MUMBAI
D05	FINANCE	KOLKATA
D04	HUMAN RESOURCE	MUMBAI

Table : EMPLOYEE

ENO	NAME	DOJ	DOB	GENDER	DCODE
1001	George K	2013-09-02	1991-09-01	MALE	D01
1002	Ryma Sen	2012-12-11	1990-12-15	FEMALE	D03
1003	Mohitesh	2013-02-03	1987-09-04	MALE	D05
1007	Anil Jha	2014-01-17	1984-10-19	MALE	D04
1004	Manila Sahai	2012-12-09	1986-11-14	FEMALE	D01
1005	R SAHAY	2013-11-18	1987-03-31	MALE	D02
1006	Jaya Priya	2014-06-09	1985-06-23	FEMALE	D05

(c)

(d) Note : DOJ refers to date of joining and DOB refers to date of Birth of employees.

(e) (i) To display Eno, Name, Gender from the table EMPLOYEE in ascending order of Eno.

(f) (ii) To display the Name of all the MALE employees from the table EMPLOYEE.

(g) (iii) To display the Eno and Name of those employees from the table EMPLOYEE who are born between ‘1987-01-01’ and ‘1991-12-01’.

(h) (iv) To count and display FEMALE employees who have joined after ‘1986-01-01’.

(i) (v) `SELECT COUNT(*),DCODE FROM EMPLOYEE`

(j) `GROUP BY DCODE HAVING COUNT(*)>1;`

(k) (vi) `SELECT DISTINCT DEPARTMENT FROM DEPT;`

(l) (vii) `SELECT NAME,DEPARTMENT FROM EMPLOYEE E,DEPT D`

(m) `WHERE E.DCODE=D.DCODE AND ENO<1003;`

(n) (viii) `SELECT MAX(DOJ), MIN(DOB) FROM EMPLOYEE;`