S12BLH31 PROGRAMMING IN JAVA

Unit – II OBJECT ORIENTED PROGRAMMING

2a. Implementation of Parameterized Constructor

Define a class Employee_SaI : Class name : Employee_Sal
Data members/lnstance variables:
String name : to store name of the employee
String empno : to store employee number
int basic :: to store basic salary of the employee
Member Methods:
i. A parameterised constructor to initialize the data members
ii. To accept the details of an employee
iii. To compute the gross and net salary as:
da = 30% of basic
hra = 15% of basic
pf =12%of basic
gross =basic + da + hra
net = gross - pf
iv. To display the name, empno, gross salary, net salary.
Write a main method to create an object of a class and call the above member methods

// To calculate the gross and net salary of an employee

```
import java.util.*;
{
public class Employee_Sal
{
String name, empno;
int basic;
double da,hra,pf,gs,net;
Employee_Sal (String n, String en, int bs)
{
    name=n;
    empno=en;
    basic=bs;
 }
void compute()
{
    da= basic*30.0/100.0;
    hra=basic*15.0/100.0;
    pf=basic*12.0/100.0;
    gs=basic+da+hra;
    net=gs-pf;
 }
void display()
{
     System.out.println("Name:"+ name);
```

```
        System.out.println(“Employee Number :"+ empno);
        System.out.println(“Gross salary : Rs. "+gs);
        System.out.println(“Net Salary : Rs. "+net);
    }

    public static void main(String args[])
    {
    Scanner in = new Scanner(System.in);
    String nm,enm;
    int bsal;
    System.out.println(“Enter Employee's Name, Employee No, Basic salary :”);
    nm=in.nextLine();
    enm=in.next();
    bsal=in.nextlnt();
    Employee_Sal ob=new Employee_Sal(nm,enm,bsal);
    ob.compute();
    ob.display();
    }
}
```

Output:

```
Enter Employee's Name, Employee No, Basic salary :
Madhavan
TS/101
32000
Name: Madhavan
Employee Number : TS/101
Gross salary : Rs. 46400.0
Net Salary : Rs. 42560.0
```

2b. Initializing Constructor

The 'Cabservice' is an organisation that provides 'Online Booking' for the passengers to avail pick-up and drop facility. Define a class Cabservice having the following specifications:
Class name : Cabservice
Instance variables/Data members:
String taxino : to store taxi number
String name : to store name of the passenger
int d : to store the distance travelled (in km)
Member Methods
Cabservice() : constructor to initialize-→ taxino =0, name = " ",d=0
void input() : to accept taxino, name, d
void calculate() : to calculate bill for hiring taxi as per the tariff given below:

Distance Travelled (km)	**Rate/Km**
Up to 1 km	25
More than I km and up to 5 km	30
More than 5 km and up to 10 km	35
More than 10 km and up to 20 km	40
More than 20 km	45

void display() : to display the details in the following format:

Taxino	Name	Distance (km)	Bill amount
******	******	**********	**********

Write the main method to create an object of a class and call all the above member methods.

```
//To calculate the bill
import java.util.*;
class Cabservice
{
String taxino,name;
int d,amt;
Cabservice()
{
taxino = " ";
name = " ";
d= 0; amt = 0 ;
}
void input()
{
Scanner in = new Scanner(System.in);
System.out.println("Enter taxi number: ");
taxino = in.nextLine();
System.out.println("Enter name of the passenger: ");
name = in.nextLine();
System.out.println("Enter distance travelled: ");
d = in.nextInt();
}
void calculate()
```

```
{
if (d<=1)
amt=25;
if (d>1&& d<=5)
amt=d*30;
if (d>5&&d<=10)
amt=d*35;
if (d>10&&d<=20)
amt=d*40;
if (d>20)
amt=d*45;
}
void display()
{
System.out.println("Taxi No"+"\t"+"Name"+"\t\t"+"Distance(km)"+"\t"+"Bill Amount(Rs.)");
System.out.println(taxino + "\t"+name+"\t"+ d +"\t\t"+amt);
}
public static void main(String args[])
{
Cabservice ob= new Cabservice();
ob.input();
ob.calculate();
ob.display();
 }
```

Output:

```
Enter taxi number
TN 2346
Enter name of the passenger:
Anant
Enter distance travelled:
22

Taxi No         Name          Distance(km)    Bill Amount(Rs.)
TN 2346         Anant         22              990
```