

1. Write a java program which initialization earning of an employee. The program should calculate the income tax to be paid by the employee as per the criteria given below:

| Slab rate | IT rate |
|-----------|---------|
|-----------|---------|

|                 |     |
|-----------------|-----|
| Upto Rs. 50,000 | Nil |
|-----------------|-----|

|                 |                          |
|-----------------|--------------------------|
| Upto Rs. 60,000 | 10% on additional amount |
|-----------------|--------------------------|

|                   |                          |
|-------------------|--------------------------|
| Upto Rs. 1,50,000 | 20% on additional amount |
|-------------------|--------------------------|

|                    |                          |
|--------------------|--------------------------|
| Above Rs. 1,50,000 | 30% on additional amount |
|--------------------|--------------------------|

Result: - income tax is .....

2. Design a class for a bank database the database should support the following operations.

1. Deposit a certain amount into an account,
2. Withdrawing a certain amount from an account,
3. Return a value specifying the amount (i.e. balance) in an amount.

3. Define a "Clock" class that does the following: -

- a. Accept hours, minutes and seconds.
- b. Check the validity numbers.
- c. Set the time to AM/PM mode.

Use necessary constructors and methods to do the above task.

4. Create a abstract class employee, having its properties & abstract function for calculating net salary and displaying the information. Drive manager & clerk class from this abstract class & implement the abstract method net salary and override the display method.

5. Write a program that should print squares of natural numbers (1,2....10) the square should not go beyond 100, & array size should not store more than 10 elements. Generate exception if range overflow.

6. Create an applet to find maximum of 3 numbers taking input from html file by parameter.

7. Write a program to create an Applet having three buttons red,green,blue. On clicking on red button the background color should be changed to red, on clicking in blue button the color should be changed to blue and so on.

8. Write a program to make connection to a database of Microsoft access, named employee. The table has field's empno, empname, salary, destination, and department. Display all the records where department is computer & destination is System Analyst.

9. Write a program in java with class Employee and do the following operations on it

- 1) Create two constructor default and with Object as parameter to initialize class variables.
- 2) Create a function calculate which calculates the pf and allowances on the salary of employee and return the all values as an object
- 3) Print all the employee a object associated values returned from calculate functions

10. Create a class Student with following operations

- 1) create parameterized constructor to initialize the objects
- 2) create a function isEqual() to check whether the two objects are equal or not which returns

the boolean value and gets two objects

3) print the result in main method if objects are equals or not (take variables as your assumption)

11. Develop a swing application for login validation of a system as shown in the figure. The application shows two options: one **Sign up** and another **Sign in**. When **Sign up** is selected, a new screen will appear for asking name, username, password. If the entered username and password do not exist in the database, it will show a successful message **[Name] has successfully registered** and store corresponding username, password in the database, otherwise the message **[Name] already exists in the system** will be displayed. On the other hand, when **Sign In** option is selected, the user will be prompted to enter username, password as shown in the figure. Eventually, the application checks whether username and password both match with some entry in the database. If such entry found in the database, then a welcome message **Welcome [Name]** will appear, otherwise an unsuccessful login message **Wrong username/password** will be displayed. For message display, the swing dialogs can be used. You should have some login information in your database so that all four situations can be validated.



