

MIT-WPU  
School of Computer Science  
Practical Assignment No: 03  
DIV-A and B  
Std: S.Y.B.Sc.(Computer Science)  
Subject: Core Java

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**Topic: Function-Constructor- Inheritance**

- Q.1. Define class Bank with data members as Cust\_name, Ac\_no and balance. Use constructors and method withdraw and deposit. Print the balance according to operation.
- Q.2. Define class student with attribute rollno , name. Inherit student class in a class called Marks, with attributes marks of Java Theory and Java Practical. Define method setMark() in Mark class marks and set the total of Java marks in setmark() method, Show the Java Marks in main class called FinalMarks.  
(Take the Marks from system.)
- Q.3. Define class Staff with data members as name, birth-date, designation and salary. Use constructors and method display () –which will display details of Staff. Create two objects of Staff and Print the name of staff having highest salary
- Q.4. Write a java program to create abstract class person derived two classes Employee and Worker from it. Use proper method to accept and display for the same. Employee(eno, ename, address), similar fields are worker.
- Q.5. Define a class employee having member variable – Emp\_No, Emp\_Name and Designation. Define another class salary which, has been inherited from class employee, having member variable Basic\_Sal. Write appropriate method which will calculate Basic\_Sal. Depending on designation and constructor to initialize member variable.
- Q.6. Write a program.  
Create two packages, pack<sub>1</sub> contains two classes as student & course. Both classes have method to read corresponding Information. Pack<sub>2</sub> contains class college with method accept( ). Write a java program to display all information.

Q.7. Write a program

Create an abstract class Employee. Derive two classes manager and worker from it. Use proper method to accept and display the details for the same. The fields of manager are mid, mname and phno. Similarly, fields for worker are name and working hours.

Q.8. Write a Java Program

Create an abstract class order having members id and description. Create two subclasses PurchaseOrder and SalesOrder with member customer name and vendor name respectively. Define methods accept and display in all classes. Create 5 objects each of PurchaseOrder and SalesOrder. Accept and display details.

Q.9. Write a Java program.

Write a java program to create a package named student. Define class studentInfo with method to display information about student such as rollno, name, class and percentage. Create another class studentPer with method to find percentage of the student. Accept student details like rollno, name, class and marks of three subject from user.

Q.10. Write a Java Program

Create an interface Manager with methods show details. Implement the interface for HRManager class. In main class create the objects for the concrete classes HRManager and call the method.

Q.11. Write a program:

Write an application to define an interface 'CalculateResult' with methods CalculateTotal(), CalculatePercentage() and CalculateGrade(). Write student class with implementation of 'CalculateResult'. Create student object and display total marks, percentage and grade of student.

Q.12. Write a program:

Define Class Employee. Define another two subclasses:

(a) Temporary Employee Class (b) Permanent Employee Class

- i) Calculate salary for temporary employee depending upon no. of hours per month and overtime hours.
- ii) Calculate salary for permanent employee depending upon no. of days per month.
- iii) Override calcsal() method
- iv) Write appropriate constructors

Q.13

Create class voter with attributes votername, voteraddress, votercontactNo., Voteraddhar, etc. Accept details of '10' voters in an array of objects and display the accepted details.

Q.14. Write a Program:

Write abstract class staff with abstract method, calculate salary() and instance method Lint - Data ( int no, string name).

Write Typist class as sub - class of staff with speed as instance variable, if speed is less than 40, then salary 4000 else 5000.

Write main class to implement above classes.

Q.15. Write a program:

Write an interface to define method to calculate compound Interest (), which takes three arguments, First– amount, second– no. of years & three–rate of interest. Implement this interface to demonstrate the functionality.

Q.16. Write a Program:

Create class passenger. Accept details '10' passengers in an array of objects and display the accepted details [assume suitable attribute fields].

Q.17. Write a short note on:

1. Method and Constructor Overloading in Java
2. Method and Constructor Overriding in Java
3. Static Keyword in Java
4. Final Class in Java
5. “this” and “final” Keyword in Java

Q.18. Differentiate between:

6. Class and Interface
7. Interface and Package
8. Abstract Class and Interface

=====Thank You=====