



**Pimpri Chinchwad Education Trust's  
Pimpri Chinchwad College of Engineering**

**Practical Assignment**

Department : MCA Year: I	Academic Year: 2020-2021	Semester : I
Subject: Java Programming Lab	Assignment No: 2	
Assignment Date: 24-2-21	Date of Submission: 3-3-21	

(Object Oriented Concepts and Constructors)

Explanation:

Object Oriented Concepts using Java.

Demonstration:

Java Program based on Java Class Objects, Constructor, and OOP Concepts.

Programs for student:

1. Create a class Employee with following data members:  
Data Members: Emp\_no, Emp\_name, Basic\_Salary, and Designation.  
Create a Java program to do the following operations on it.  
Add constructor with Object as parameter to initialize class variables.  
Add a function calculate() which calculates the DA, HRA, PF and IT on the salary of employee  
Print all the employee information to user.
2. Create a class Date with following data members and member functions:  
Data Members: Year, Month and Day.  
Member Functions: acceptDate(): It accepts date from the user in yyyy-mm-dd.  
displayDate(): It display date to the user.  
dateDifference(Date, Date): It finds the difference between two date.  
Create a Java program to accept current date and birth date of user, find the current age and display it back to user in the form of yy-mm-dd.
3. An organization maintains the records of all its employees as per the designation and the hierarchy of the designation. Each employee has his basic information and allowances are decided as per the hierarchy of the designation. e. g. Normal

Employee gets basic salary Rs. 5000 per month. If that employee is Manager, he gets 20% of basic as HRA additional. If that employee is Head of any department, he gets HRA + 10% of basic as Child Education Allowance. Use inheritance to solve this problem.

4. Imagine a publishing company that markets both Books and Video-Cassettes versions of its works. Create a class Publication that stores the title (a string) and price (a float) of publication. From this class derive two classes: Book, which adds a page\_count (integer) and a class Tape, which add a playing\_time in minutes (float). Each of these three classes should have a getdata( ) and putdata() functions. Write a Java program to test these classes.