Programming in Java

Mid Sem Practical   Mid Sem Practical Marks   Mid Sem Theory
Marks   Marks

Date	Index	Practical
5/08/2018	1	Set path and Classpath environment Variable temporary and Permanently.
	2	Write a JAVA program to calculate distance from the following equation. $d = ut + \frac{1}{2} at^2$
	3	Calculate total and average marks of a student having seven subjects. Also calculate grade based on the following criteria: Avg < 40% – Fail < 50% – C < 60% – B < 85% – A >= 85% – A+
6/08/2019	4	Write a JAVA program to check whether a given character is vowel or not.
	5	Write a JAVA program to calculate the following series. $x + x^2 + x^3 + x^4 + x^5 + … + x^n$
	6	Write a JAVA program to calculate the following series. $SinX = X – \frac{X^3}{3!} + \frac{X^5}{5!} - … \frac{X^n}{n!}$
13/08/2019	7	Write a java program to replace an element of given position in an array with new element. (Take both position and new element from user)
	8	Write a java program to find maximum and minimum values from a set of numbers.
	9	Create a Class named employee having member variables such as empNo, empName, empSalary, deptName and empdesg. Cre hardcoded values. Create methods to calculate net salary of an employee. And also write a method to display all the informatio (NS= HRA+DA+BS , HRA is 15% of BS , DA is 10% of BS.)
	10	WAP to calculate number of objects of a class.
20/8/2019	11	Write a program to calculate sum of 2 Integer numbers, 3 Integer numbers, 2 float numbers and 2 double numbers.
	12	**Inheritance :** Write a java program to implement inheritance as per the given scenario. Create a parent class named person having member variables such as name, age, birth date, email_id, address, city. information. Use constructor to initialize all the values of member variables. Create child class named employee which inherits the class person having member variables such as emp_id , join display all this information. Use constructor to initialize all the values of member variables. Create another class named dept having member variables such as dept id and dept name. Also here write same met Create main method to display all the information of particular employee
09/09/2019	13	Create a class account that stores customer name, account number and balance. From this derive the classes curre specific to their requirements. Current account maintains minimum balance of Rs. 1000, whereas savings account rates for current and savings accounts are 5% and 12% respectively. Include necessary member function in these these classes.
	14	Create a class box having width, height and depth variables. Create a child class of box class, BoxWeigth which co calculate volume of box and also display weight of the box. Use constructors in both the classes to initialize objects.
17/09/2019	15	**Dynamic Method Dispatch :** Create a class Account that returns rate of interest.Create three subclass SBI,ICICI and AXIS which override interes override methods.
	16	**Abstarct Class :** Create an abstract class named "shape" which contains an abstract method to calculate the area of any shape. Crea and "rectangle" which inherits shape class and implements the calculate_area method of shape class. Display the res
23/09/2019	17	**Interface :** Create interfaces car with a method distance. Create another interface bus with method speed. Create a class vehicle
	18	Write an interface called Exam with a method Pass(int mark) that returns a boolean. Write another interface called returns a string. Write a class called Result which implements both Exam and Classify. The Pass method should retur false. The Division method must return "FIRST" when the parameter average is 60 or more, "SECOND" when averag average is less than 50.
	19	**Normal Inner Class :** Write a java program to find prime numbers using Regular inner class concept.
	20	**Method Inner Class :** Write a java program to find odd numbers using Method inner class concept.
	21	**Package :** Create a package library mylib.maths and add class with functions to calculate factorial of a give number, to check w to check weather a given number is palindrome or not. Add this library to another project and test all functions.
	22	Create a package org.pizza and add classes to create a pizza menu with necessary members.(Apply all access modifi form the menu created.
24/09/2019	23	**Anonymous Inner Class :** Create a Popcorn class which contains method taste.Now Create a anonymous subclass Test which override method ta
	24	**Static Nested Class :** Create a class animal which contains static(no_of_legs) and non static(animal_name) members .Now cretae a Stat which print the details..

30/09/2019	25	Create an abstract class Product that stores product id, manufacturer name and base price. Include related metho classes MP3Player and TV from Product. Mp3 player is commissioned by 20% and TV by 15%. Also include necessary constructo
	26	WAP to demonstrate use of "This" Keyword.
01/10/2019	27	**Multithreading :** Find the table of **three alternate numbers** using thread.
	28	Write a java program to set priority to threads. Print the name and priority of the each thread.

	29	Write a Java program to compute first 10 even numbers. Also compute the first 20 odd numbers. Create two threads to comput
		    i) Even thread must execute after odd thread.(Use join())
		    ii) Even thread give chance to odd thread to execute and then its finish its execution.(Use yield())

10/07/2019	30	Write a program to sort the array of n integers in descending order. Include a try block to locate various exceptions related to ar

	31	**Userdefined Exception :**
		Write a class called MarkProcess to process the marks. Obtain the register number and marks as input. If marks are
		thrown and handled with the message "Illegal Mark". For all valid marks, the candidate will be declared as "PASS", i:
		Fail.
		    In MarkProcess class write a validation(int mark) method which is used to call the exception.
		    Write another method result() which will declare the result.
		    Write a class containing main method that will create an object of type MarkProcess and call the methods in it to d