Practical File on

Java Programming

Subject Title: Practical VIII - Java Lab

Subject code: BCA 272

Submitted to

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1.	Write a program to compute Simple Interest.			
2.	Write a program to compute the area of a circle.			
3.	Write a program to calculate average of all multiples of 7 in a given range.			
4.	Write a program to print following patterns i.) 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 Ii.) @ @ @ @ @ @ @ @ @ @ @ @ @ @ @			
5.	Write a program to print prime numbers in a given range.			
6.	WAP that accepts number as Command line arguments.			
7.	Write program that randomly generates a number and checks whether it is prime or not.			
8.	Write program that randomly generates a number from a range 10-99 and checks whether it is Armstrong or not.			
9.	Write a program to insert an array and print those elements using command line arguments.			
10.	Write a program to initialize and print the elements of an array.			
11.	Write a program to sort an array in ascending and descending order.			
12.	WAP to perform linear search on an Array of 5 integers.			
13.	WAP to perform binary search on an Array of 5 integers.			
14.	WAP to display smallest element of an Array of 5 integers.			
15.	WAP to display difference between smallest and largest elements of an Array of 5 integers.			
16.	Write a program to perform following Matrix operations using arrays. i.) Addition ii.) Multiplication			
17.	Write a program to demonstrate the working of any Ten String class functions.			

18.	WAP to extract surname from complete name			
19.	Write a program to create a class called StringDemo and declare three strings and use functions like length, charAt and equals on them.			
20.	Write a program to create a class student add enrollment number name and percentage as data fields. Add constructors and other necessary functions to the class.			
21.	Write a program to create a class student add enrollment number name and percentage as data fields. Add constructors and other necessary functions to the class. Add function to perform name based linear search on an array of 5 objects of student class.			
22.	Write a program to create a class called Use Static and declare some static variables, a static method that will print those variables and static block which will perform some operation on that variable.			
23.	Write a program to create a class Add that will add to numbers by using a default constructor.			
24.	Write a program to create a class called triangle with base and height as the attributes and calculate its area using parameterized constructor.			
25.	Write a program to create a class called Rectangle and calculate its area using this keyword.			
26.	Write a program to create a class called Box with instance variables width, height and depth. Create another class BoxWeight which inherits class Box with an additional instance variable weight. Compute the volume of the box using inheritance.			
27.	Implement the above program using super keyword.			
28.	Create a class Figure and its 2 subclasses Rectangle and Triangle and calculate its area using dynamic method dispatch.			
29.	Implement the above program using abstract classes by making Figure class abstract.			
30.	Write relevant programs to show the usage of final keyword with class, variables and methods in java.			
31.	Write relevant programs showing the usage of package and access protection in java also show the concept of importing a package			
32.	Write a program to implement stacks using interfaces.			
33.	Write a program to implementing nesting of interface.			
34.	WAP that throws user defined exception if age of voter is less than 18.			
35.	WAP that throws user defined exceptions if stack is full or is empty.			

36.	Write a program declaring a Java class called SavingsAccount with members ``accountNumber`` and ``Balance``. Provide member functions as ``depositAmount ()`` and ``withdrawAmount ()``. If user tries to withdraw an amount greater than their balance then throw a user-defined exception if bank balance drops below 1000 due to any transaction.			
37.	Write relevant programs to show the concept of creating Thread through thread class and Runnable interfaceWAP to print multiples of 2,3,4 simultaneously.			
38.	WAP to show that high priority thread gets more CPU attention than a low priority thread.			
39.	Write relevant programs to show the concept of thread synchronization and inter-thread communication.			
40.	Program in java to show the connectivity of java with the database using different SQL statement.			
41.	WAP to insert a record in database.			
42.	WAP to create a table in database via java.			
43.	WAP that updates some records.			
44.	Program that displays the life cycle of the Applet and other relevant programs that shows the implementation of Applets in java.			
45.	Write Programs to draw different figures using AWT.			
46.	Write programs to add label, Buttons, Textfield, list etc using AWT.			
47.	Create a swing application by building a login window to check user name and password using text fields and command buttons			
48.	Create 3 control boxes for font name, size and style, change font of the text according to user selection.			
49.	Write a program using layout Manager to add different controls on a frame.			
50.	Program to demonstrate different event handler.			
51.	Working with Graphics, colours and fonts in AWT.			
52.	Write a program to implement Swing 3 function calculator.			
53.	Create a Swing login window to check user name and password using text fields and command buttons			
54.	Create a swing application with 3 control boxes for font name, size and style, change font of the text according to user selection.			
55.	Write program that uses swings to display combination of RGB using 3 scrollbars.			

56.	Write a swing application that uses atleast 5 swing controls			