**ASSIGNMENT -1**

**Set – 1**

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| 1. | Write a Program: Initialize two character variables in a program and display the characters in alphabetical order.  Eg1) if first character is s and second is e  O/P: e,s  Eg2) if first character is a and second is e  O/P:a,e | 2.5 marks |
| 2. | Write a program to reverse a given number and print  Eg1)  I/P:  1234  O/P: 4321  Eg2)  I/P: 1004  O/P: 4001 | 2.5 marks |
| 3. | Write a program to print the sum of the elements of the array with the given below condition. If the array has 6 and 7 in succeeding orders, ignore 6 and 7 and the numbers between them for the calculation of sum.  Eg1) Array Elements - 10,3,6,1,2,7,9  O/P: 22  [i.e 10+3+9]  Eg2) Array Elements - 7,1,2,3,6  O/P:19  Eg3) Array Elements - 1,6,4,7,9  O/P:10 | 5 marks |

**Set – 2**

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| 1. | Write a program to initialize an integer array with values and check if a given number is present in the array or not. If the number is not found, it will print -1 else it will print the index value of the given number in the array  Ex1) Array elements are {1,4,34,56,7} and the search element is 90  O/P: -1  Ex2)Array elements are {1,4,34,56,7} and the search element is 56  O/P: 4 | 2.5 marks |
| 2. | Write a program that accepts 2 integers a and b as input and finds the quotient of a/b.  This program may generate an Arithmetic Exception. Use exception handling mechanisms to handle this exception. In the catch block, print the message as shown in the sample output.  Also illustrate the use of finally block. Print the message “Inside finally block”.  Sample Input and Output 1:  Enter the 2 numbers  5  2  The quotient of 5/2 = 2  Inside finally block  Sample Input and Output 2:  Enter the 2 numbers  5  0  DivideByZeroException caught  Inside finally block | 2.5 marks |
| 3. | Write a program to find greatest number in a 3\*3 array. The program is supposed to receive 9 integer numbers as command line arguments.  Example1:      C:\>java Sample 1 2 3      O/P Expected : Please enter 9 integer numbers  Example2:      C:\>java Sample 1 23 45 55 121 222 56 77 89      O/P Expected :  The given array is :  1 23 45  55 121 222  56 77 89  The biggest number in the given array is 222 | 5 marks |

**Set – 3**

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| 1. | Write a program  Create a new class called “Calculator” which contains the following:  1. A static method called powerInt(int num1,int num2) that accepts two integers and returns num1 to the power of num2 (num1 power num2).  2. A static method called powerDouble(double num1,int num2) that accepts one double and one integer and returns num1 to the power of num2 (num1 power num2).  3. Call your method from another class without instantiating the class (i.e. call it like Calculator.powerInt(12,10) since your methods are defined to be static)  Hint: Use Math.pow(double,double) to calculate the power. | 2.5 marks |
| 2. | Write a program to create a class named shape. It should contain 2 methods- draw() and erase() which should print “Drawing Shape” and “Erasing Shape” respectively.  For this class we have three sub classes- Circle, Triangle and Square and each class override the parent class functions- draw () and erase ().  The draw() method should print “Drawing Circle”, “Drawing Triangle”, “Drawing Square” respectively.  The erase() method should print “Erasing Circle”, “Erasing Triangle”, “Erasing Square” respectively.  Create objects of Circle, Triangle and Square in the following way and observe the polymorphic nature of the class by calling draw() and erase() method using each object.  Shape c=new Circle();  Shape t=new Triangle();  Shape s=new Square(); | 2.5 marks |
| 3. | Given two strings, word and a separator, return a big string made of count occurrences of the word, separated by the separator string.  if the inputs are "Wipro","X" and 3 then the output is "WiproXWiproXWipro". | 5 marks |