

### USM's Shriram Mantri Vidyanidhi Info Tech Academy

### Java Logic Stage 3

#### **Array**

- Q1. Accept 5 number in an array, accept a number from user and check if given number is there in an array or not
- Q2. Accept 5 number in an array and sort it (bubble sort)
- Q3. Accept 5 number in an array and sort it (selection sort)
- Q4. Accept 5 number in an array and sort it (insertion sort)
- Q5. Accept two set of array each having 5 element sort it and put it in new array
- Q6. Accept 5 number in an array, accept a number from user and check if given number is there in an array or not use binary search
- Q7. Accept 5 number in an array (repeat numbers) print unique array
- Q8. Accept data in 3\*3 matrix two times and do the sum of it
- Q9. Accept data in 4\*4 matrix and transpose it
- Q.10 Accept data in 4\*4 matrix and check if it is magic square or not
- Q.11 Accept data in 3\*3 matrix and print row wise and column wise total
- Q.12 Accept 10 number in an array and print highest 3 number
- Q.13 Accept 5 number in an array and display message entered data is in ascending/descending or not sorted
- Q.14 Accept 10digit number print longest ascending number
- a. Eg 2156897456 o/p 156897
- Q.15 calculate sum of element at a particular index with each of its adjacent element and find out the max and minimum sum for example

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4 7 6 1 3 3 5 4 8 9 if 2<sup>nd</sup> row and 3<sup>rd</sup> column number i8 sum(8+9,8+3,8+8,8+6) here max is 17 and min is 8+3=11

Q.16 take two array from the user separated by space atleast one of them should be of 20 inlength. and none of them is more than 40 in length. and it should gives the new o/p array followed by new line with sum of above array sample input:

99911111111111111111111

o/p 1111111111111111110

Q.17 Accept a data in 9\*9 matrix, element allowed is between 1 to 9 no duplicate value allowed row and column wise this 9\*9 matrix has 9 set of 3\*3 matrix and this 3\*3 matrix should not have repeated entry.

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This is program of Sudoku

Q.18 Accept data in 3\*3 matrix if any row has all 0 replace it with '#' and print the matrix

#### **Input:**

0	0	0
0	1	3
0	4	5

#### Out put:

#	#	#
#	1	3
#	4	5

#### Input:

F · ·		
0	5	0
0	0	0
7	0	5

#### **Output:**

0	5	0
#	#	#
7	0	5

#### Input:

F		
0	0	0
1	0	3
7	0	5

# Shriram Output:

#	#	#
1	#	3
7	#	5

Q.19 Write a program to sort a random list of nos. provided in an array like below {99, 3, 77, 90, 4}

Print the same on the page, in ascending as well as descending order.

(Do not use any ready-made library function for the same.)

Q.20 Segregate positive and negative integers in linear time Given an array of positive and negative integers, The output should print all negative numbers, followed by all positive numbers.

For example,

Input: [9, -3, 5, -2, -8, -6, 1, 3] Output: [-3, -2, -8, -6, 5, 9, 1, 3]