JAVA Arrays and String Test Answers

1. Write a program to copy the elements of one array into another array

Ans :

```
public class Que1 {
    public static void main(String[] args) {
        int[] sourceArray = {1, 2, 3, 4, 5};
        int[] destinationArray = new int[sourceArray.length];
        for (int i = 0; i < sourceArray.length; i++) {
            destinationArray[i] = sourceArray[i];
        }
        System.out.println("Source Array: ");
        for (int i : sourceArray) {
            System.out.print(i + " ");
        }
```

2. Write a program to array elements print all Even number

```
package Javatest;
public class Que2 {
    public static void main(String[] args) {
        int[] numbers = {1, 2, 3, 4, 5, 6, 7, 8, 9, 10};
        System.out.println("Even numbers in the array:");
        for (int i = 0; i < numbers.length; i++) {
            if (numbers[i] % 2 == 0) { // Check if the number is even
                System.out.print(numbers[i] + " ");
            }
        }
```

```
    }
}
```

3. Write a program to array elements print all Odd number

```
package Javatest;
public class Question3 {
    public static void main(String[] args) {
        int[] numbers = {1, 2, 3, 4, 5, 6, 7, 8, 9, 10};
        System.out.println("Odd numbers in the array:");
            for (int i = 0; i < numbers.length; i++) {
           if (numbers[i] % 2 != 0) { // Check if the number is odd
              System.out.print(numbers[i] + " ");
           }
        }
    }
}
```

4. Write a program to search an element in an array

```
import java.util.Scanner;
public class SearchElementInArray {
    public static void main(String[] args) {
        int[] numbers = {1, 3, 5, 7, 9, 11, 13, 15};
        Scanner scanner = new Scanner(System.in)
        System.out.print("Enter the number to search: ");
        int searchElement = scanner.nextInt();
        boolean found = false;
```

```
        for (int i = 0; i < numbers.length; i++) {
            if (numbers[i] == searchElement) {
                System.out.println("Element " + searchElement + " found at index:
" + i);
                found = true;
                break
            }
        }
        if (!found) {
            System.out.println("Element " + searchElement + " not found in the
array.");
        }
        scanner.close();
    }
}
```

5. Write a program to array elements to print sum of Negative Numbers

```
package Javatest;
import java.util.Scanner;
public class Q5 {
    public static void main(String[] args) {
        int[] numbers = {1, 2, 3, 4, 5, 6, 7, 8, 9, 10};
        Scanner scanner = new Scanner(System.in);
        System.out.print("Enter the number to search: ");
        int searchElement = scanner.nextInt();
        boolean found = false;
        for (int i = 0; i < numbers.length; i++) {
            if (numbers[i] == searchElement) {
```

```
            System.out.println("Element " + searchElement + " found at index:
" + i);
            found = true;
            break; // Stop searching after finding the element
          }
       }
       if (!found) {
          System.out.println("Element " + searchElement + " not found in the
array.");
       }
       scanner.close();
    }
}
```

6. Write a program to Print Unique Elements in Array

```
package Javatest;
public class Q6 {
    public static void main(String[] args) {
       int[] numbers = {1, 2, 2, 3, 4, 5, 5, 6, 7, 8, 8, 9};
       System.out.println("Unique elements in the array:");
       for (int i = 0; i < numbers.length; i++) {
          boolean isUnique = true;
          for (int j = 0; j < numbers.length; j++) {
             if (i != j && numbers[i] == numbers[j]) {
                isUnique = false; // Element is not unique
                break;
             }
          }
```

```
            if (isUnique) {
                System.out.print(numbers[i] + " ");
            }
        }
    }
}
```

7. Write a program to array elements print all Positive number

```
package Javatest;
public class Q7 {
    public static void main(String[] args) {
        int[] numbers = {-10, -5, 0, 5, 10, 15, -20, 25};
        System.out.println("Positive numbers in the array:");
        for (int i = 0; i < numbers.length; i++) {
            if (numbers[i] > 0) { // Check if the number is positive
                System.out.print(numbers[i] + " ");
            }
        }
    }
}
```

8. Write a program to calculate the average value of array elements

```
package Javatest;
public class Q8 {
    public static void main(String[] args) {
        int[] numbers = {10, 20, 30, 40, 50};
        int sum = 0;
        double average;
```

```
        for (int i = 0; i < numbers.length; i++) {
            sum += numbers[i];
        }
        average = (double) sum / numbers.length;
        System.out.println("Sum of the array elements: " + sum);
        System.out.println("Average value of the array elements: " + average);
    }
}
```

9. Write a program in to find the sum of all elements of the array

```
package Javatest;
public class Q9 {
    public static void main(String[] args) {
        int[] numbers = {1, 2, 3, 4, 5};
        int sum = 0;
        for (int num : numbers) {
            sum += num;
        System.out.println("Sum of all elements in the array: " + sum);
    }
}
```

//10. Write a program to merge two arrays elements to store third array

```
package Javatest;

public class Q10{
    public static void main(String[] args) {
        // Initialize the first array
        int[] array1 = {1, 2, 3, 4, 5};
```

```
        int[] array2 = {6, 7, 8, 9, 10};
        int[] mergedArray = new int[array1.length + array2.length];
        for (int i = 0; i < array1.length; i++) {
            mergedArray[i] = array1[i];
        }
        for (int i = 0; i < array2.length; i++) {
            mergedArray[array1.length + i] = array2[i];
        }
        System.out.println("Merged Array: ");
        for (int num : mergedArray) {
            System.out.print(num + " ");
        }
    }
}
//11. Write a program to get the canonical representation of the string object
package Javatest;

public class Q11 {
    public static void main(String[] args) {
        String str1 = new String("Hello World");
        String canonicalStr = str1.intern();
        System.out.println("Original String: " + str1);
        System.out.println("Canonical String: " + canonicalStr);
        String str2 = "Hello World"; // This string is in the string pool
        System.out.println("Are str1 and str2 the same reference? " + (str1 == str2));
```

```
        System.out.println("Are canonicalStr and str2 the same reference? " +
(canonicalStr == str2));
    }
}
//12. Write a program to check whether a given string ends with the
contents of
////another string
package  Javatest;
public class Q12 {
    public static void main(String[] args) {
        String mainString = "Hello World!";
        String suffix = "World!";
  if (mainString.endsWith(suffix)) {
            System.out.println("The main string ends with the specified suffix.");
        } else {
            System.out.println("The main string does NOT end with the specified
suffix.");
        }
    }
}
//13. Write a program to check whether two String objects contain the
same data
package Javatest;


public class Q13 {
    public static void main(String[] args) {
        // Create two string objects
```

```
        String str1 = "Hello";
        String str2 = "Hello";
        if (str1.equals(str2)) {
            System.out.println("Both strings contain the same data.");
        } else {
            System.out.println("The strings contain different data.");
        }
    }
}
//14. Write a program to count a number of Unicode code points in the specified
//text range of a String
package Javatest;
public class Q14 {
    public static void main(String[] args) {
        String str = "Hello World! 🌍";
        int startIndex = 0;
        int endIndex = str.length(); // You can change this range as needed
        int codePointCount = str.codePointCount(startIndex, endIndex);
        System.out.println("Number of Unicode code points in the specified range: " + codePointCount);
    }
}
//15. Write a program to compare a given string to the specified character
//sequence
package Javatest;
```

```
public class Q15 {
   public static void main(String[] args) {
      String str = "Hello World";
      if (isEqual) {
         System.out.println("The string is equal to the specified character sequence.");
      } else {
         System.out.println("The string is NOT equal to the specified character sequence.");
      }
   }
}
//16. Write a program to concatenate Two strings
package Javatest;
public class Q16 {
   public static void main(String[] args) {
      String str1 = "Hello";
      String str2 = "World";
      String concatenatedString = str1 + " " + str2;  // Adds a space between the words
      System.out.println("Concatenated String: " + concatenatedString);
   }
}
```


```
//16. Write a program to concatenate Two strings
package Javatest;
public class Q16 {
   public static void main(String[] args) {
```

```
        String str1 = "Hello";
        String str2 = "World";
        String concatenatedString = str1 + " " + str2;  // Adds a space between
the words
        System.out.println("Concatenated String: " + concatenatedString);
    }
}
//17. Write a program to Count Number of Uppercase and Lowercase letters
package Javatest;

public class Q17 {
    public static void main(String[] args) {
        String inputString = "Hello World!";
        int uppercaseCount = 0;
        int lowercaseCount = 0;
        for (int i = 0; i < inputString.length(); i++) {
            char ch = inputString.charAt(i);
            if (Character.isUpperCase(ch)) {
                uppercaseCount++;
            }
            else if (Character.isLowerCase(ch)) {
                lowercaseCount++;
            }
        }
        System.out.println("Number of Uppercase Letters: " +
uppercaseCount);
        System.out.println("Number of Lowercase Letters: " + lowercaseCount);
```

```
    }
}
//18. Write a program to create a character array containing the contents of
a
//string
package Javatest;
public class Q18 {
    public static void main(String[] args) {
        String originalString = "Hello World";
        char[] charArray = originalString.toCharArray();
        System.out.println("Original String: " + originalString);
        System.out.println("Character Array: ");
        for (char c : charArray) {
            System.out.print(c + " ");
        }
    }
}
//19. Write a program to find maximum between two string
package Javatest;
public class Q19 {
    public static void main(String[] args) {
        String str1 = "apple";
        String str2 = "banana";
        int result = str1.compareTo(str2);
        if (result > 0) {
            System.out.println("Maximum String: " + str1);
        } else if (result < 0) {
```

```
            System.out.println("Maximum String: " + str2);
        } else {
            System.out.println("Both strings are equal.");
        }
    }
}
//20. Write a program to create a new string repeating every character twice of a
//given string
package Javatest;
public class Q20 {
    public static void main(String[] args) {
        String originalString = "Hello";
        StringBuilder newString = new StringBuilder();
        for (int i = 0; i < originalString.length(); i++) {
            char ch = originalString.charAt(i);
            newString.append(ch).append(ch);
        }

        // Display the new string with repeated characters
        System.out.println("Original String: " + originalString);
        System.out.println("New String: " + newString.toString());
    }
}
```