ADS CCEE Practice Quiz

Total points **14/20** ❓

Time : 30 min. Questions : 20

The respondent's email (**chitransh1709@gmail.com**) was recorded on submission of this form.

0 of 0 points

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Questions   **14 of 20 points**

✓ What will be the result of the function when fun(6) is called? *   1/1

```
int fun(int n) {
    if (n == 0) return 0;
    if (n % 2 == 0) return fun(n - 1) + n;
    return fun(n - 1);
}
```

○ a) 9

◉ b) 12   ✓

○ c) 6

○ d) 18

✓ What will be the output of the following?   *   1/1

```
boolean countNumbers(int[] arr, int target, int n) {
    if (n == 0)
        return false;
    if (arr[n - 1] == target)
        return true;
    return countNumbers(arr, target, n - 1);
}
System.out.println(countNumbers(new int[]{5, 10, 15, 20}, 10, 4));
```

◉ a) true   ✓

○ b) false

○ c) 0

○ d) -1

✗ What will be the output of the following?   *   0/1

```
int sumArray(int[] arr, int target) {
    int count = 0;
    for (int num : arr) {
        if (num == target) {
            count++;
        }
    }
    return count;
}
System.out.println(sumArray(new int[]{1, 2, 2, 3, 1, 1, 4}, 1));
```

○ a) 1

○ b) 2 ✕

○ c) 3

○ d) 4

Correct answer

◉ c) 3

✓ What does this recursive function compute? *   1/1

```
int reverseNumber(int n) {
  if (n == 0) return 0;
  return n % 10 + reverseNumber(n / 10);
}
System.out.println(reverseNumber(1234));
```

◉ a) 10   ✓

○ b) 9

○ c) 11

○ d) 8

✕ What will be the output of the following?   *   0/1

```
int countLength(String str) {
  if (str.isEmpty()) return 0;
  return (str.charAt(0) == 'a' ? 1 : 0) + countLength(str.substring(1));
}
System.out.println(countLength("banana"));
```

○ a) 2

○ b) 3

◉ c) 1   ✕

○ d) 0

Correct answer

◉ b) 3

✓ What is the output of the following recursive function? *   1/1

```
int power(int n) {
  if (n == 1) return 1;
  return n * power(n - 1);
}
System.out.println(power(4));
```

◉ a) 24   ✓

○ b) 16

○ c) 12

○ d) 10

✓ What will be the output of the following?   *   1/1

```
int sumOdd(int n) {
  if (n <= 0) return 0;
  if (n % 2 == 0) return n + sumOdd(n - 1);
  return sumOdd(n - 1);
}
System.out.println(sumOdd(10));
```

○ a) 25

◉ b) 30   ✓

○ c) 55

○ d) 20

```
boolean isReverse(String str) {
    if (str.length() <= 1) return true;
    if (str.charAt(0) != str.charAt(str.length() - 1)) return false;
    return isReverse(str.substring(1, str.length() - 1));
}
System.out.println(isReverse("madam"));
```

○ a) true

◉ b) false   ✕

○ c) null

○ d) 0

Correct answer

◉ a) true

✓ What will be the output of the following?   *1/1

```
int sumOfMultiplesOfThree(int[] arr) {
    int sum = 0;
    for (int num : arr) {
        if (num % 3 == 0) {
            sum += num;
        }
    }
    return sum;
}

System.out.println(sumOfMultiplesOfThree(new int[]{1, 2, 3, 4, 5, 6, 7, 8, 9, 12, 15}));
```

◉ a) 45   ✓

○ b) 30

○ c) 20

○ d) 15

✓ What will be the output of the following?   *   1/1

```
int countArray(int[] arr, int n) {
    if (n == 0)
        return 0;
    int sum = arr[n - 1];
    return sum + countArray(arr, n - 1);
}
System.out.println(countArray(new int[]{1, 2, 3, 4}, 4));
```

○ a) 9

◉ b) 10   ✓

○ c) 11

○ d) 12

✕ What will this snippet print?   *   0/1

```
int[] arr = {2, 4, 6, 8};
for (int i = 0; i < arr.length; i++) {
    if (i % 2 == 1) arr[i] = arr[i] / 2;
}
System.out.println(Arrays.toString(arr));
```

◉ a) [2, 4, 6, 8]   ✕

○ b) [2, 2, 6, 4]

○ c) [2, 4, 3, 8]

○ d) [2, 2, 6, 4]

Correct answer

◉ b) [2, 2, 6, 4]

✓ What will be the output of the following?　　　　　* 　1/1

```
int removeDuplicates(int[] arr) {
    if (arr.length == 0) return 0;
    int uniqueIndex = 1;

    for (int i = 1; i < arr.length; i++) {
        if (arr[i] != arr[i - 1]) {
            arr[uniqueIndex++] = arr[i];
        }
    }

    return uniqueIndex;
}

System.out.println(removeDuplicates(new int[]{0, 0, 1, 1, 1, 2, 3, 3, 4}));
```

◉ a) 5　　　　　　　　　　　　　　　　　　　　　　　✓

○ b) 6

○ c) 4

○ d) 7

✗ What will be the output of the following?　　　*　　0/1

```
int findLargest(int[] arr) {
    int min = Integer.MIN_VALUE;
    int max = Integer.MIN_VALUE;

    for (int num : arr) {
        if (num > min) {
            max = min;
            min = num;
        } else if (num > max && num < min) {
            max = num;
        }
    }
    return max;
}

int largest = findLargest(new int[]{5, 3, 9, 1, 4});
System.out.println(largest);
```

○ a) 4

○ b) 5

◉ c) 3　　　　　　　　　　　　　　　　　　　　　　　✗

○ d) 9

Correct answer

◉ b) 5

✓ What will be the output of the following?　　　　　*　　1/1

```
double countOccurences(int[] arr) {
    double sum = 0;

    for (int num : arr) {
        sum += num;
    }
    return sum / arr.length;
}

double occurence = countOccurences(new int[]{5, 10, 15, 20, 25});
System.out.println(occurence);
```

○ a) 10.0

◉ b) 15.0　　　　　　　　　　　　　　　　　　　　　　✓

○ c) 20.0

○ d) 25.0

✓ What will be the output of the following?   *   1/1

```
boolean checkLengthPositive(int[] arr) {
    for (int i = 0; i < arr.length - 1; i++) {
        if (arr[i] > arr[i + 1]) {
            return false;
        }
    }
    return true;
}

System.out.println(checkLengthPositive(new int[]{1, 2, 3, 4, 5}));
```

◉ a) true   ✓

○ b) false

○ c) null

○ d) 0

✓ What will be the output of the following? *   1/1

```
int sumOdd(int n) {
    if (n <= 0) return 0;
    if (n % 2 != 0) return n + sumOdd(n - 1);
    return sumOdd(n - 1);
}
System.out.println(sumOdd(9));
```

◉ a) 25   ✓

○ b) 20

○ c) 45

○ d) 35

✓ What is the purpose of the following Java code snippet that uses *1/1
recursion?

```
public int countOdd(int[] arr, int n) {
    if (n <= 0) {
        return 0;
    } else {
        return arr[n - 1] +  countOdd(arr, n - 1);
    }
}
```

○ a) The average of the array elements

○ b) The sum of odd elements in the array

◉ c) The sum of all array elements   ✓

○ d) The factorial of the array elements

✓ What will be the output of the following? *   1/1

```
int sumOfDigits(int n) {
    if (n == 0) {
        return 0;
    }
    return 1 + sumOfDigits(n / 10);
}

System.out.println(sumOfDigits(12345));
```

○ a) 15

◉ b) 5   ✓

○ c) 12

○ d) 2

✓ What will be the output of the following? *   1/1

```
void traverseArray(int[] arr, int n) {
    if (n <= 0)
        return;
    System.out.print(arr[n - 1] + " ");
    traverseArray(arr, n - 1);
}
traverseArray(new int[]{1, 2, 3, 4, 5}, 5);
```

○ a) 1 2 3 4 5

⦿ b) 5 4 3 2 1   ✓

○ c) 1 5 2 4 3

○ d) 3 2 1 5 4

✗ What will be printed by the following function?   *   0/1

```
String traverseString(String str) {
    if (str.isEmpty()) return str;
    return traverseString(str.substring(1)) + str.charAt(0);
}
System.out.println(traverseString("abcde"));
```

○ a) edcba

○ b) abcde

○ c) abcd

⦿ d) aedcb   ✗

Correct answer

⦿ a) edcba

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