

CSE 1115E (CT 1)

Time: 40 minutes + 5 minutes for uploading scripts and downloading questions

Marks: 20

Write in a khata and upload the pdf (must) by scanning your script into the given link.
Check whether your script is readable and also provide proper indentation in your code.

1. Fix the errors in the following code snippet and write the output after correction. 3

```
public class Q1 {  
    int sum(String a, String b) {  
        return a + b;  
    }  
    public static void main(String[] args) {  
        String c = sum("Messi >", "Cristiano");  
        System.out.println(c);  
    }  
}
```

- a. Add static keyword
 - b. Change return type to String
 - c. Output: Messi >Cristiano
2. Complete the following Java program that will go through the items of the given multidimensional array using **foreach loop (must)** and print the **product** of all the items.

5

```
public class Compute {  
    public static void main() {  
        int[][] a = {{10, -5, 6}, {5, 9, 2, 1}, {3, -5}};  
        // Write your code here  
    }  
}
```

- a. p = 1;
- b. for (int[] x: a){
 i. for (int y: x){
 1. p *= y;
 ii. }
c. }

3. Find out the mistakes with the following code snippet and explain the reason behind the error. You don't need to correct them. 4

```
public class Q3 {
    public static void main(String[] args) {
        int 4a = 4; // 4a variable is not possible
        String s = 'A'; // double quotes

        int d = 145;
        byte b = d; // int can't be automatically cast to byte

        int[][] a1 = new int[][]; // no first dimension value

        double[] d1;
        d1 = new double[]{3.0,5.0,6.0};
        System.out.println(d1[3]); // d1.length is 3

        char c = "a"; // single quotes
        long l = 1210921212312; // no L suffix

        byte[] b2 = {129, 123, 5, -192}; // 129, -192 are not
within byte range

        String[] s1 = {"Messi", "Ronaldo"};
        System.out.println(s1[0][0]); // it's a 1D array

        float f = 5.6; // no f suffix

        int a = 5, b = 6;
        String str = a + b; // int can't be auto cast to String

    }
}
```

4. Compute the output of the following code snippet. 4

```
char[] grades = {'C', 'A', 'F', 'B', 'F', 'A'};
for (int i=0; i<grades.length; i++) {
    if (grades[i] == 'F') continue;
    System.out.println("Email sent to student " + i);
}
```

Email sent to student 0
Email sent to student 1
Email sent to student 3
Email sent to student 5

5. Write down the output of the following code. 4

```
public class Q5 {  
    static int square(int a) {  
        return a*a;  
    }  
    public static void main(String[] args) {  
        int p = 12, q = 12;  
  
        System.out.println(p==q); // true  
        System.out.println("p==q"); // p==q  
        System.out.println("p==q? " + (p==q)); // p==q? true  
  
        System.out.println("square(5)"); // square(5)  
        System.out.println(square(5)); // 25  
  
        float[] f1 = {3.0f, 4.0f, 5.0f};  
        for (float x: f1) {  
            f1[0] += 2.0f;  
            x += 2.0f;  
        }  
        System.out.println(f1[0] + " " + f1[2]); // 9.0 5.0  
  
        int[][] k = new int[3][];  
        k[0] = new int[4];  
        System.out.println(k[0][0]); // 0  
  
        int[][] a2 = new int[2][];  
        a2[0] = new int[4];  
        System.out.println(a2.length + a2[0].length); // 6  
    }  
}
```

```
true  
p==q  
p==q? true  
square(5)  
25.0  
9.0 5.0  
0  
6
```