


CLASS LIST NUMBER	<b>FACULTY:</b> INFORMATION & COMMUNICATION TECHNOLOGY <b>DEPARTMENT:</b> COMPUTER SCIENCE <b>SUBJECT:</b> Principles of Programming and Introduction to Programming (Java) PPA115D & TRO115D				<h1>CT1</h1>	
	<div style="text-align: center;">  <p><b>Tshwane University of Technology</b></p> <p><i>We empower people</i></p> </div>				<b>Instructions</b> <ul style="list-style-type: none"> <li>When you are done, follow the instructions on how to upload. <b><i>If you do not submit your files on EC, you will NOT be supplied with the opportunity to write a sick test or any supplementary test.</i></b></li> <li>Save your work frequently.</li> <li>This is a closed book test. <b>NO</b> additional resources, like the Internet or EC may be used for help. <b>You may NOT use any flash sticks during the test.</b></li> <li>Add your name as a comment to the top and the bottom of your files.</li> <li>Please note that <b>marks will be subtracted</b> if proper coding conventions are not utilised. (e.g. Indentation, vertical spacing between methods, placement of braces, variable names, etc...) A maximum of five marks can be deducted if coding conventions is not followed.</li> </ul>	
Class Test 1 Duration: 0 hour 50 minutes Date: 3 March 2023 Total: 28 Pages: 5		Examiner Miss V.M. BOOI				
Student number						
Initials		Surname				
				%		
Campus	Group	Lecturer	Venue/PC#			
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Signature

## INSTRUCTIONS ON HOW TO WRITE THE TEST ON ELECTRONIC CAMPUS (EC):

1. Create a folder on **D:\ Drive** and rename the folder your **student number**.
2. Save all your work in the folder you have created
3. Open a text editor (notepad++ is recommended) or MS Word and save your document in your student number folder.
4. Open the **browser**.
5. Type <http://ec.tut.ac.za> in the address field of the browser and press enter.
6. Click **Login**.
7. Type in student number for user name and if you are using EC for the first time you must use your student number as your password. (Not applicable any more. Please change to the current situation).
8. Alternatively, you must enter your password. (Same here).
9. Click **Login button**.
10. Click [**Continue**]
11. Select [**Student**]
12. Select [**Tests**]
13. Select [**Webtest 4**]
14. Type or Select **PPA115D/TRO115D** into the first text field.
15. Type or Select **20231** into the second text field.
16. Type or Select **C** into the third text field (The "C" must be a capital letter).
17. Click "**Next**"
18. Click on the "**Write**" button.
19. Click on "**[Start]**" and you will be in the test to submit your answers.
20. Click on [**Section**] on the test to submit each Questions, and click [Go] to submit your answer- Copy your answer and paste it in the space provided.
21. Click [**Test**] to move to the next or previous Questions.
22. Under each question click edit to update your answer.

## Question 1

[10 Marks]

### Multiple Choice

In each of the following cases, provide the most correct answer from the options by pressing **Go** next to the answer you deem to be the most correct on EC.

- 1.1 A(n) \_\_\_\_\_ provide tools that will help programmers to develop their code efficiently.
- a. Editor
  - b. IDE
  - c. java compiler
  - d. Java Runtime Environment
- 1.2 Which of the following statements is an invalid statement with regards to Java Applications?
- a. Every Java statement must be terminated with a semicolon.
  - b. Java application must have maximum of only one method
  - c. Import packages into java source files to access built-in and user-defined
  - d. All of the above
- 1.3 Which of the following is a **valid** class name?
- a. CalculateTax%
  - b. My\_HOUSE
  - c. Class
  - d. RoomDimension
- 1.4 Bytecode is the compiled format for Java programs and the bytecode files generally have a \_\_\_\_\_extension.
- a. java
  - b. class
  - c. javac
  - d. exe
- 1.5 Which of the following is the correct order of precedence for data types in Java.
- a. double, float, char, int, short
  - b. float, double, short, int, char
  - c. double, float, int, short, char
  - d. double, int, float, char

1.6 Which of the following is not an example of a primitive data type?

- a. boolean
- b. char
- c. String
- d. short int

1.7 Which of the following operator will be executed first in the following expression?

**answer = 125 % 8 + 2 / 10 \* 5;**

- a. +
- b. %
- c. \*
- d. /

1.8 Which of the following is a correct statement to use an assignment operator in Java.

- a. 45 = num1 + num2
- b. results = length \* width
- c. roomArea= 15;
- d. percentage = 15%;

1.9 All classes in the \_\_\_\_\_ package need not be imported in the application as they are imported automatically.

- a. .text
- b. .util
- c. .java
- d. .lang

1.10 There are three steps in problem solving approach. The \_\_\_\_\_ stage helps us to design a solution to a problem.

- a. Problem analysis
- b. Solution design
- c. Editing
- d. Compilation

**Short Questions (Fill-in)****Instructions:**

- Open Microsoft word or notepad and type in your answers therein.
- Question 2.1 to Question 2.5 answers must be typed onto this notepad/word document.
- Submit each question under the slot/section provided on EC.
- Make sure you submit your answers every time when you done with question.

2.1 Complete the following Java class header for the class called ClassTest1.

(2)

**Blank A** `class ClassTest1`

**2.2 Predefined classes**

2.2.1 Which predefined class is needed for a Java application to format your output.

(2)

2.2.2 Complete the following Java statement to import a predefined class that is used for user input.

(2)

`import Blank B`

**2.3 Declaration and data types**

2.3.1 Write a full Java statement to declare and initialize a variable called **angle** to 180 degrees.

(2)

2.3.2 Write a statement to assign a value to a variable you have declared called **area**, the variable will consists of the yard measurements of the house. The area of the room is 520 m<sup>2</sup>.

(2)

**2.4 Input and Output**

2.4.1 Write a complete Java statement to display the text "**Class Test 1**" in the command prompt.

(2)

2.4.2 Complete the following Java statement to accept the registration amount from the user using the scanner object called input.

(2)

`double registrationFee = Blank C ;`

**2.5 Compile and execute**

2.5.1 In the command prompt, what would be the complete command to compile the class called **Registration**?

(2)

2.5.2 In the command prompt, what would be the complete command to execute the class called **Distance**?

(2)

\*\*\*\*\*The End of Class Test 1\*\*\*\*\*