Tshwane University of Technology

We empower people

Class Test 2
Duration: 0 hour 50 minutes
Date: 10 March 2023
Total: 30
Pages: 3

Examiner
Miss V.M. BOOI

Student number

Initials	Surname	
		%
Campus	Group	Lecturer	Venue/PC#
			_____ /____

Instructions

- When you are done, follow the instructions on how to upload. ***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.***

- Save your work frequently.

- This is a closed book test. **NO** additional resources, like the Internet or EC may be used for help. **You may NOT use any flash sticks during the test.**

- Add your name as a comment to the top and the bottom of your files.

- Please note that **marks will be subtracted** 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.

- Signature.

    _____

    _____
    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 **D into** the third text field (The "**D**" 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.

PPA115D/TRO115D CT2 20231

Question 1   [30 Marks]

Preparation:
- Create an application folder in the D drive called "D:\My Documents\StudentNumber\Question1\", where **StudentNumber** is your actual student number.
- Create a new file in Notepad++ called Open the **"Registration.java"** file in NotePad++ and complete the question as instructed below.
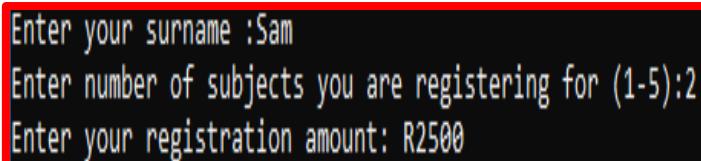
Registration Application

At ABC College of Education, students pay **R5500** for a module. The college allows students to register for a minimum of one and a maximum five subjects per semester. In order for students to register they must pay at least a minimum registration fee of **R2000**. The remaining amount must then be paid in six equal payments at the end of **March**, **April, May, June, July,** and at the end of **August**.

Develop a Java application that will help the college manage their registration details.
The program must do the following:
1.1 Declare all constants and necessary variables.
1.2 Prompt the user to enter the : (See Figure 1.1 below)
- o surname,
- o number of subjects,
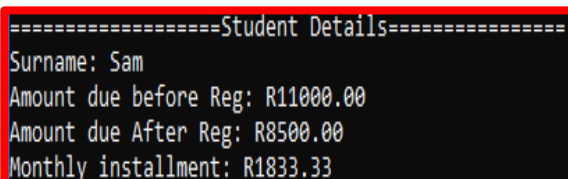- o and the registration fee.

```
Enter your surname :Sam
Enter number of subjects you are registering for (1-5):2
Enter your registration amount: R2500
```
    Figure 1.1

1.3 Validate the registration fee and the number of subjects. The registration fee must be R2000 and the number of subjects must be from 1 to 5.
    1.3.1 If the registration fee and the number of subjects are valid, do the following:
        1.3.1.1 calculate the amount due based on the number of subjects registered,
        1.3.1.2 calculate the amount due after paying registration fee, and
        1.3.1.3 calculate the amount payable (installment) at the end of March, April, May, June, July and at the end of August.
        1.3.1.4 Display the student surname, amount due, amount due after registration and monthly installment for the next 6 months as shown below.
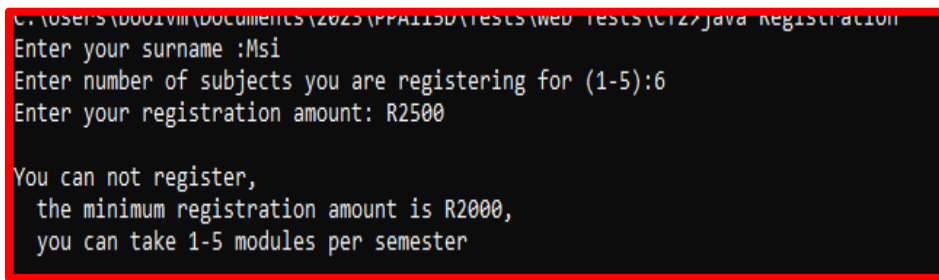
    NB: The displayed values must be formatted into two values after the decimal position.

```
==================Student Details=================
Surname: Sam
Amount due before Reg: R11000.00
Amount due After Reg: R8500.00
Monthly installment: R1833.33
```
    Figure 1.2

1.3.2 If the registration fee is not valid, display appropriate error message as shown in **Figure 1 .3.**

```
C:\Users\BooiVM\Documents\2023\PPA115D\Tests\Web Tests\CT2>java Registration
Enter your surname :Msi
Enter number of subjects you are registering for (1-5):6
Enter your registration amount: R2500

You can not register,
  the minimum registration amount is R2000,
  you can take 1-5 modules per semester
```

Figure 1 .3

***************************The End of Class Test 2******************