**CPIT Department of Computing**

**Graduate Diploma in Information and Communication Technologies**

**Bachelor of Information and Communication Technologies**

**Diploma in Information and Communications Technology**

**Diploma in Information Technology**

**BCSE101 – Software Engineering 1A**

**JavaScript Practical Test**

**Monday 22 June 2015**

**9:00-11:10**

**Student Name:**

**CPIT ID Number:**

**NOTE: For the purposes of this test you may use textbooks, your notes and any electronic files that are in your area of the network.**

This test is worth 25% of the overall mark for BCSE101

This test has 5 pages including the cover sheet

***Note that for some questions it may be necessary to write an extra method over and above the method that is asked for.***

Copy the test’s zip file from Moodle onto your local drive. Unzip all directories (and all sub-directories) and all files.

1. Four classes have been created in this project. Draw a class diagram in the space below showing the classes (including their attributes and methods) and relationships.

(4 marks)

1. In the setup method of the Controller class write code that to create the following four PARTs using the addPART method that exists in the ROOT\_WHOLE class

**3-6 headings**

**4 lines of data**

**1 tricky data type requiring reformatting.**

***NOTE: the defect in this data is deliberate – fix it!***

(3 marks)

1. Write a getXxx method for ROOT-WHOLE class that displays only the .property1, .property2 and .property3 of all the PARTs.

***(Note that the other data for them should not be displayed).***

The required output is:

4-6 lines. 3 punctuations or spacings.

***NOTE: Punctuation and spacing and ORDER must also be as shown above.***

***Hints:***

***You will need to use \n and space in your methods.***

***You will need to call the .sort method.***

(3 marks)

1. Write an addSUBPART method for PART class that can be used to create a new SUBPART.

Note: You will need to add some code in the SUBPART class as well.

(3 marks)

1. In the setup method of the Controller class write code to create the following SUBPARTs, using the addSUBPART method that has been created previously.

***NOTE: You will have to use the findPART method in the WHOLE class***

**3-5 headings. A lookup required. 2 ticks in the data. 4-8 lines of data.**

(4 marks)

1. Write a **Boolean** get method named hasXXXX for the PART class that returns true if ??????????? and false otherwise.

***HINT: Check the value returned by the .length method of the array.***

(2 marks)

1. Write a getXXXXX method for the WHOLE class that first lists for each PART who ???BOOLEAN\_CONDITION???, the PART’s property1, property2 and property2 and then lists underneath the details of the SUBPART as shown below. This method must call the method created in the previous question.

The required output is:

Two lines of data with 2-4 dependant lines

***NOTE: The order shown above is the required order. Punctuation and spacing must also be as shown above.***

***Hint: You WILL need to use \t, \n and space in your method.***

(6 marks)

**HOW TO SUBMIT YOUR COMPLETED TEST**

When you have finished the test, zip and send. /**src** folder to the digital drop box on Moodle.

You must check with one of the tutors that this has been done properly before you leave the room.

If your work has not been loaded into digital drop box while you are in the room your test will not be marked.