**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**

**JavaScript Practical Test**

**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 4 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 project contained in the BloodBankJS directory (and all sub-directories) from Moodle onto your local drive.

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 three Donor using the addDonor method that exists in the Hospital class

**ID FirstName LastName BloodType**

98343532 John Goff O+

19348855 Barack Jiabao A+

34551873 Phil Key AB-

(3 marks)

1. Write a getDonors method for Hospital class that displays only the lastName, firstName and bloodType of all the Donors.

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

The required output is:

Jiabao, Barack. [A+]

Key, Phil. [AB-]

Goff, John. [O+]

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

***Hint:***

***You WILL need to use \n in your methods.***

***You WILL need to call the .sortDonors method in Hospital.***

(3 marks)

1. Write an addDonation method for the Donor class that can be used to create a new Donation. NB. You will need to add some code in the Donation class as well.

(3 marks)

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

***NOTE You will have to use the findDonor() in the Hospital class***

**Donor ID Date Amount**

98343532 13 Nov 2009 500

98343532 17 Jan 2006 600

98343532 22 Feb 2007 400

19348855 18 Oct 2009 1000

19348855 27 Jan 2009 600

19348855 26 Feb 2008 200

34551873 19 Oct 2009 750

(3 marks)

1. Write a **Boolean** get method named isLarge() for Donation class that returns true if the amount donated is equal to or greater than 600 units and false otherwise.

(2 marks)

1. Write a getLargeDonations()method for the Hospital class that first lists the Donor’s lastName, firstName and bloodType and then lists underneath the dates and sizes of each Donation which was 600 or more units. This method must call the method created in the previous question.

The required output is:

Jiabao, Barack. [A+]

27 January 2009=600

18 October 2009=1000

Key, Phil. [AB-]

19 October 2009=750

Goff, John. [O+]

17 January 2006=600

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

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

(2 marks)

**How to Submit your Completed Test Schema**

* When you have finished the test, zip the files in the \src directory and put them into 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 the files has not been loaded into digital drip box while you are in the room your test will not be marked.