**Ara 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**

**Student Name:**

**Ara ID Number:**

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**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 Questions using the addQuestion method that exists in the Test class

**1. Which of the following is NOT a common term for software construction?**

**2. Which of the following is NOT a software construction activity?**

**3. Which of the following is the main focus of software construction?**

(3 marks)

1. Write a getQuestions method for Test class that displays only a number and the stub text of all the Questions.

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

The required output is:

1. Which of the following is NOT a common term for software construction?

2. Which of the following is NOT a software construction activity?

3. Which of the following is the main focus of software construction?

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

***Hints:***

* + - ***use '\n' in your methods.***
    - ***call the .sort method.***

(3 marks)

1. Write an addOption method for Question class that can be used to create a new Option.

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

(3 marks)

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

***NOTES:***

* ***use the findQuestion method in the Test class***
* ***The star “\*” shows the correct option***

**1. Which of the following is NOT a common term for software construction?**

**(a) coding**

**(b) programming**

**(c) debugging**

**(d) maintenance\***

**2. Which of the following is NOT a software construction activity?**

**(a) integration**

**(b) problem definition\***

**(c) requirements development**

**(d) detailed design**

**3. Which of the following is the main focus of software construction?**

**(a) detailed design**

**(b) integration**

**(c) coding and debuging\***

**(d) unit testing**

(4 marks)

1. Write a **Boolean** get method named isCorrect for the Option class that returns true if the .correct property is true and false otherwise.

(2 marks)

1. Write a toString method for the Test class that first lists for each Question and then lists each then lists underneath the details of the Option as shown below. A star “\*” should be added to the end of the option which is the correct answer. This method must call the method created in the previous question.

The required output is:

**1. Which of the following is NOT a common term for software construction?**

**(a) coding**

**(b) programming**

**(c) debugging**

**(d) maintenance\***

**2. Which of the following is NOT a software construction activity?**

**(a) integration**

**(b) problem definition\***

**(c) requirements development**

**(d) detailed design**

**3. Which of the following is the main focus of software construction?**

**(a) detailed design**

**(b) integration**

**(c) coding and debuging\***

**(d) unit testing**

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

(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.