Answers to Questions from Pass Task 2.1

Name:

Student ID:

1: Assume that age has the value 0. List the actions the computer executes when it runs the following code.

printf("Message 0"); while (age < 5){

printf("Message 1"); age = age + 1;

}

printf("Message 2");

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| Sequence | Action | Note |
| **1** | Calls the printf procedure with the text ‘Message 0’ |  |
| **2** | Evaluates the expression (condition of while) age < 5 | Condition is true. |
| **3** | Jumps into the while loop |  |
| **4** |  |  |
| **5** |  | Age now 1 |
| **6** | Returns to the top of the while loop |  |
| **7** | Evaluates the expression (condition of while) age < 5 |  |
| **8** | Jumps into the while loop |  |
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| **25** | Evaluates the expression (condition of while) age < 5 |  |
| **26** | Jumps to the end of the while loop |  |
| **27** | Calls the printf procedure with the text “Message 2” |  |

2. Assume that age has the value 8. List the actions the computer executes when it runs the following code.

printf("Message 0"); while (age > 5){

printf("Message 1"); age = age - 2;

}

printf("Message 2");

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| Sequence | Action | Note |
| **1** | Calls the printf procedure with the text ‘Message 0’ |  |
| **2** | Evaluates the expression (condition of while) age > 5 | Condition is true. |
| **3** | Jumps into the while loop |  |
| **4** |  |  |
| **5** |  | Age now 6 |
| **6** | Returns to the top of the while loop |  |
| **7** | Evaluates the expression (condition of while) age > 5 | Condition is true. |
| **8** | Jumps into the while loop |  |
| **9** |  |  |
| **10** |  |  |
| **11** |  |  |
| **12** | Evaluates the expression (condition of while) age > 5 |  |
| **13** | Jumps to the end of the while loop |  |
| **14** | Calls the printf procedure with the text “Message 2” |  |

End of Task