Course No: ESGD4204
Course Title: Software Testing
Date: 31/12/2011
No. of Questions: 5
Time: 2 hr
Using Calculator (No)

University of Palestine

UP

Final Exam
First term 2011/2012
Total Grade: 60

Instructor: Eng. Tasneem Darwish
Student No.: _____
Student Name: _____
College Name: Eng. College
Dep. / Specialist: Software Engineering

First Question   (10)

For each of the following statements state whether it is <u>true</u> or <u>false</u>:

1. Programming errors related to mismatching interfaces among modules will be   (   )
   detected earlier if nonincremental testing is used

2. The earlier errors are found, the higher the probability of correcting the errors   (   )
   correctly.

3. During walkthroughs some test cases are mentally executed.   (   )

4. In most cases, driver modules are easier to produce than stub modules.   (   )

5. The optimal amount of time for the inspection session is from 90 to 120 minutes   (   )

6. inspection and walkthroughs are effective in detecting errors made in the   (   )
    requirements-analysis process

7. There is more opportunity for parallel activities if nonincremental testing is used   (   )

8. Statement coverage testing is stronger than decision coverage testing.   (   )

9. In the Inspection team the moderator is the Author of the program.   (   )

10. To test a module using the top-down strategy, a driver must be designed for it.   (   )

Second Question   (22)

1) What are the motivations for doing module testing?

2) How do you test a software system using the nonincremental approach?

3) When the inspection and walkthroughs testing should be applied?

4) What are the duties of the moderator?

5) List the activities of the Inspection session?

6) Why is it recommended that the results of an inspection must be a confidential matter?

7) What are the disadvantages of desk checking testing?

8) What is the difference between black box testing and white box testing?

Course No: ESGD4204
Course Title: Software Testing
 Date: 31/12/2011
No. of Questions: 5
Time: 2 hr
Using Calculator (No)

University of Palestine

UP

Final Exam
First term 2011/2012
Total Grade: 60

Instructor: Eng. Tasneem Darwish
Student No.: _____
Student Name: _____
College Name: Eng. College
Dep. / Specialist: Software Engineering

Third Question   (8)

Choose the write answer:

1) the big-bang testing is:
   (a) incremental testing
   (b) nonincremental testing
   (c) top down testing
   (d) bottom up testing

2) which of the following is a black-box methodology:
   (a) Multiple-condition coverage
   (b) Boundary-value analysis
   (c) Statement coverage

3) One of the advantages of Bottom-up Testing is:
   (a) Observation of test results is easier.
   (b) Driver modules must be produced.
   (c) The program as an entity does not exist until the last module is added.
   (d) It gives early skeletal program.

4) when designing test cases for a module test you need :
   (a) a specification for the module
   (b) the module's source code
   (c) both (a) and (b)
   (d) None of the above.

Forth Question   (20)

consider the following command :
     Increment   variable   number

The **Increment** command adds the number to the value of the variable and output the new value of the variable on the screen. The number operand is *not optional* it must be written and it can be one of the following formats:

The number can be **0**

The number can start with the '**+**' sign then an Integer value.

The number can start with the '-' sign then an Integer value.

If the number operand is missing the *error message "Increment value is missing"*.

The variable has *an integer* value and it is *not optional*, it must be written. If the variable operand is missing the *error message "there is no variable to be incremented"*.

If the number or the variable operand is not an integer the *error message "both operand must be an integer "*

Finally, if there are no errors the new value of **the variable operand is displayed with one of the following massages:**

If the number was zero the message will be " no increment"

If the number was is positive the message is " the operation is increment"

If the number was is negative the message is " the operation is decrement"

Read the previous specification carefully then write the list of causes and effects then draw the cause-effect graph with the required constrains, draw the decision table and derive two test cases.

Course No: ESGD4204
Course Title: Software Testing
 Date: 31/12/2011
No. of Questions: 5
Time: 2 hr
Using Calculator (No)

University of Palestine

UP

Final Exam
First term 2011/2012
Total Grade: 60

Instructor: Eng. Tasneem Darwish
Student No.: _____
Student Name: _____
College Name: Eng. College
Dep. / Specialist: Software Engineering

Fifth Question   Bonus 4 marks

consider the following command which compare operand1 with operand2:

Compare   operand1   operand 2

Part of the causes list is as follows:

1) The operand1 is present
2) The operand1 is an integer
3) The operand2 is present
4) The operand2 is an integer
5) operand1 is greater than operand2
6) operand1 is equal to operand2
7) operand1 is less than operand2

Part of the effect list is as follows:

91) the output message "the first operand is greater than the second operand"
92) the output message "the first operand is less than the second operand"
93) the output message "the first operand is equal to the second operand"

Part of the decision table is given below:

	1	2	3
1	1	1	1
2	1	1	1
3	1	1	1
4	1	1	1
5	1	0	0
6	0	0	1
7	0	1	0
91	1	0	0
92	0	1	0

Using the cause and effect lists and the decision table <u>write two test cases that can be derived from the decision table.</u>

Good Luck