Last & Firstname: _____ Group: _____ Date: _____ ID: A

OOP Short Test 3

Multiple Choice

Identify the choice that best completes the statement or answers the question.

____ 1. CRC in CRC card stands for

a. classes, relationships, refactoring
b. classes, redundancy, composition
c. classes, relationships, collaborators
d. composition, refactoring, collaboration

____ 2. *Interface implementation* is depicted in a UML diagram using the symbol:

a.
b. 
c. 
d. 

____ 3. *Aggregation* is depicted in a UML diagram using the symbol:

a.
b. 
c. 
d. 

____ 4. Each *method specification* consists of:

a. an invariant, a precondition (optional), and a postcondition.
b. a precondition (optional), a modifies clause (optional), and a postcondition.
c. all of the above
d. none of the above

Multiple Response

Identify one or more choices that best complete the statement or answer the question.

____ 5. Assertions can be placed in:

a. Class invariant, modifies clause, method pre and/or postcondition
b. Method precondition, class invariant
c. Method postcondition, loop invariant,
d. Loop invariant, modifies clause

____ 6. Design by contract asks that

a. Designers of classes have preconditions
b. Method is required to ensure: postcondition & class invariant (at time of method return)
c. Classes have postconditions and preconditions
d. Method caller guarantees: precondition & class invariant (at time of method call)

____ 7. A *try* block

a. contains the code for the basic algorithm
b. contains only code for dealing with the exception
c. can also contain code that throws an exception if something unusual happens
d. tells what to do when an execption occurs

____ 8. The catch block parameter does:

a. Specify the type of thrown exception object that the catch block can catch
b. Contain a *finally* clause
c. None of these
d. Provide a name on which it can operate in the catch block

____ 9. The most important things about an exception object are:
   a. The *catch* block
   b. Its type
   c. The *finally* clause
   d. The message it carries

____ 10. An event listener
   a. Always has static methods
   b. Belongs to a class that is provided by the application programmer
   c. It is notified when event happens
   d. Belongs to a class that is provided by the system programmer

Completion
Complete each statement.

11. Assertions are based on _____ and certain program _____

12. Inner classes may be:
   _____ classes
   _____ classes
   _____ classes
   _____ classes

Short Answer

13. Define the *composition* relationship

14. Define *dependency* relationship

15. Describe the *ActionListener* interface (i.e. write the methods it contains)

OOP Short Test 3
Answer Section

MATCHING

5. ANS: B, C PTS: 1
12. ANS:
Static member classes
Member classes
Local classes
Anonymous classes

PTS: 1
6. ANS: B, D PTS: 1
7. ANS: A, C PTS: 1
8. ANS: A, D PTS: 1
10. ANS: B, C PTS: 1
9. ANS: B, D PTS: 1
11. ANS:
logic
notations

PTS: 1
1. ANS: C PTS: 1
2. ANS: D PTS: 1
3. ANS: B PTS: 1
4. ANS: B PTS: 1

SHORT ANSWER

13. ANS:

A form of aggregation with strong ownership and coincident lifetimes. The parts cannot survive the whole/aggregate.

PTS: 1
14. ANS:
A relationship between two model elements where a change in one may cause a change in the other. Non-structural, “using” relationship

PTS: 1
15. ANS:

```
public interface ActionListener {
        void actionPerformed(ActionEvent event);
}
```

PTS: 1

Last & Firstname: _____ Group: _____ Date: _____ ID: B

OOP Short Test 3

Multiple Response
Identify one or more choices that best complete the statement or answer the question.

____ 1. The most important things about an exception object are:
a. Its type
b. The *finally* clause
c. The message it carries
d. The *catch* block

____ 2. Assertions can be placed in:
a. Loop invariant, modifies clause
b. Method postcondition, loop invariant,
c. Method precondition, class invariant
d. Class invariant, modifies clause, method pre and/or postcondition

____ 3. Design by contract asks that
a. Classes have postconditions and preconditions
b. Designers of classes have preconditions
c. Method caller guarantees: precondition & class invariant (at time of method call)
d. Method is required to ensure: postcondition & class invariant (at time of method return)

____ 4. An event listener
a. Always has static methods
b. Belongs to a class that is provided by the system programmer
c. It is notified when event happens
d. Belongs to a class that is provided by the application programmer

____ 5. A *try* block
a. can also contain code that throws an exception if something unusual happens
b. contains only code for dealing with the exception
c. tells what to do when an execption occurs
d. contains the code for the basic algorithm

____ 6. The catch block parameter does:
a. Provide a name on which it can operate in the catch block
b. Contain a *finally* clause
c. None of these
d. Specify the type of thrown exception object that the catch block can catch

Completion
Complete each statement.

7. Inner classes may be:

_____ classes
_____ classes
_____ classes
_____ classes

8. Assertions are based on _____ and certain program _____

Last & Firstname: _____ **ID: B**

Short Answer

9. Define the *composition* relationship

10. Describe the *ActionListener* interface (i.e. write the methods it contains)

11. Define *dependency* relationship

Multiple Choice
Identify the choice that best completes the statement or answers the question.

____ 12. Each *method specification* consists of:
a. all of the above
b. an invariant, a precondition (optional), and a postcondition.
c. none of the above
d. a precondition (optional), a modifies clause (optional), and a postcondition.

____ 13. *Aggregation* is depicted in a UML diagram using the symbol:
a.
b.
c.
d.

____ 14. CRC in CRC card stands for
a. composition, refactoring, collaboration
b. classes, redundancy, composition
c. classes, relationships, refactoring
d. classes, relationships, collaborators

____ 15. *Interface implementation* is depicted in a UML diagram using the symbol:
a.
b.
c.
d.

OOP Short Test 3
Answer Section

MULTIPLE RESPONSE

1. ANS: A, C PTS: 1
2. ANS: B, C PTS: 1
3. ANS: C, D PTS: 1
4. ANS: C, D PTS: 1
5. ANS: A, D PTS: 1
6. ANS: A, D PTS: 1

COMPLETION

7. ANS:
   Static member classes
   Member classes
   Local classes
   Anonymous classes

   PTS: 1
8. ANS:
   logic
   notations

   PTS: 1

SHORT ANSWER

9. ANS:

   A form of aggregation with strong ownership and coincident lifetimes. The parts cannot survive the whole/aggregate.

   PTS: 1
10. ANS:
    ```
    public interface ActionListener {
        void actionPerformed(ActionEvent event);
    }
    ```

    PTS: 1
11. ANS:
    A relationship between two model elements where a change in one may cause a change in the other.
    Non-structural, “using” relationship

    PTS: 1

MULTIPLE CHOICE

12. ANS: D PTS: 1
13. ANS: A PTS: 1
14. ANS: D PTS: 1
15. ANS: A PTS: 1