* **Question 1**

10 out of 10 points

|  |  |  |  |  |
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|  |  | | | |
| Correct | Which of the following is likely to not be an object found during OO Analysis? |  |  |  |
| |  |  | | --- | --- | | Selected Answer: | a.  The trigonometric cosine function in a video game application. | | Answers: | a.  The trigonometric cosine function in a video game application. | |  | b.  A molecule in a chemistry application. | |  | c.  A book in a library application. | |  | d.  A landing of an airplane in an air traffic control application. | |  |  |  |

* **Question 2**

10 out of 10 points

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | | | |
| Correct | Of the following, which is not part of the signature of an operation? |  |  |  |
| |  |  | | --- | --- | | Selected Answer: | b.  Parameter names | | Answers: | a.  Name | |  | b.  Parameter names | |  | c.  Parameter types | |  | d.  Return type | |  |  |  |

* **Question 3**

10 out of 10 points

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | | | |
| Correct | The set of all operations on a class is called its \_\_\_\_\_\_\_\_\_\_\_ |  |  |  |
| |  |  | | --- | --- | | Selected Answer: | a.  Protocol | | Answers: | a.  Protocol | |  | b.  Service | |  | c.  Composition | |  | d.  Encapsulation | |  |  |  |

* **Question 4**

10 out of 10 points

|  |  |  |  |  |
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|  |  | | | |
| Correct | All of the following are true about classes and object instances except: |  |  |  |
| |  |  | | --- | --- | | Selected Answer: | c.  They may both construct new object instances | | Answers: | a.  They may both perform operations | |  | b.  They may both encapsulate data | |  | c.  They may both construct new object instances | |  | d.  They may both be loaded into memory at run time | |  |  |  |

* **Question 5**

10 out of 10 points

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | | | |
| Correct | Generalization-specialization is indicated in UML by what kind of line? |  |  |  |
| |  |  | | --- | --- | | Selected Answer: | c.  A solid line with a triangle on the generalization end. | | Answers: | a.  A solid line with a diamond on the generalization end. | |  | b.  A dashed line with a triangle on the generalization end. | |  | c.  A solid line with a triangle on the generalization end. | |  | d.  A solid line with a triangle on the specialization end. | |  |  |  |

* **Question 6**

10 out of 10 points

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | | | |
| Correct | If an operation is defined for a super class, which one of the following statements is true? |  |  |  |
| |  |  | | --- | --- | | Selected Answer: | d.  Some subclasses may override the operation and some may not. | | Answers: | a.  If the method is not overridden by a subclass, you may not invoke it on any object instances of that subclass. | |  | b.  All subclasses must override the operation. | |  | c.  The operation may not be redefined (overridden) in a subclass. All subclasses inherit the behavior from their super class. | |  | d.  Some subclasses may override the operation and some may not. | |  |  |  |

* **Question 7**

10 out of 10 points

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | | | |
| Correct | The ability to send the same message to a number of object instances of different classes and have different behaviors executed, is referred to as what? |  |  |  |
| |  |  | | --- | --- | | Selected Answer: | a.  Polymorphism | | Answers: | a.  Polymorphism | |  | b.  Homomorphism | |  | c.  Anthropomorphism | |  | d.  Isomorphism | |  |  |  |

* **Question 8**

10 out of 10 points

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | | | |
| Correct | The first thing you do in OO Analysis (as opposed to Requirements or Design) is: |  |  |  |
| |  |  | | --- | --- | | Selected Answer: | c.  Find the classes of objects | | Answers: | a.  Write the use cases | |  | b.  Determine the multiplicities | |  | c.  Find the classes of objects | |  | d.  Find the actors | |  |  |  |

* **Question 9**

10 out of 10 points

|  |  |  |  |  |
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|  |  | | | |
| Correct | Which of the following is not shown in a UML class diagram? |  |  |  |
| |  |  | | --- | --- | | Selected Answer: | d.  Messages | | Answers: | a.  Associations | |  | b.  Attributes | |  | c.  Operations | |  | d.  Messages | |  |  |  |

* **Question 10**

10 out of 10 points

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | | | |
| Correct | When we treat an inanimate object like a person, this is called \_\_\_\_\_\_\_ |  |  |  |
| |  |  | | --- | --- | | Selected Answer: | c.  Anthropomorphism | | Answers: | a.  Polymorphism | |  | b.  Homomorphism | |  | c.  Anthropomorphism | |  | d.  Isomorphism | |  |  |  |

* **Question 11**

10 out of 10 points

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | | | |
| Correct | Object-oriented analysis is a(n) \_\_\_\_\_\_\_ process. |  |  |  |
| |  |  | | --- | --- | | Selected Answer: | b.  Discovery | | Answers: | a.  Invention | |  | b.  Discovery | |  | c.  Structuring | |  | d.  Abstract | |  |  |  |

* **Question 12**

10 out of 10 points

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|  |  | | | |
| Correct | The R in CRC stands for |  |  |  |
| |  |  | | --- | --- | | Selected Answer: | d.  Responsibility | | Answers: | a.  Recording | |  | b.  Review | |  | c.  Requirement | |  | d.  Responsibility | |  |  |  |

* **Question 13**

10 out of 10 points

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | | | |
| Correct | CRC was invented by Kent Beck and Ward Cunningham in 1989.  Cunningham is also notable because he did what? |  |  |  |
| |  |  | | --- | --- | | Selected Answer: | c.  Invented the wiki | | Answers: | a.  Co-wrote the famous book on object-oriented design patterns. | |  | b.  Was later one of the developers of the Unified Modeling Language | |  | c.  Invented the wiki | |  | d.  Was one of the inventors of the Java programming language | |  |  |  |

* **Question 14**

10 out of 10 points

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | | | |
| Correct | The second C in CRC (the OO analysis technique) stands for |  |  |  |
| |  |  | | --- | --- | | Selected Answer: | a.  Collaborator | | Answers: | a.  Collaborator | |  | b.  Check | |  | c.  Cycle | |  | d.  Computing | |  |  |  |

* **Question 15**

10 out of 10 points

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | | | |
| Correct | In UML, a class is represented by a three part box.  What goes in the middle part? |  |  |  |
| |  |  | | --- | --- | | Selected Answer: | Attributes | | Answers: | Attributes | |  | Operations | |  | Class name | |  | Interfaces | |  |  |  |

* **Question 16**

10 out of 10 points

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | | | |
| Correct | The syntax for what goes into the attributes and operations sections of a UML class specification is based on what? |  |  |  |
| |  |  | | --- | --- | | Selected Answer: | b.  Ada or Pascal syntax | | Answers: | a.  Java or C syntax | |  | b.  Ada or Pascal syntax | |  | c.  Object constraint language (OCL) | |  | d.  Predicate calculus notation | |  |  |  |

* **Question 17**

10 out of 10 points

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | | | |
| Correct | If there is a class named Powell, an anonymous object instance of that class would be |  |  |  |
| |  |  | | --- | --- | | Selected Answer: | a.  :Powell | | Answers: | a.  :Powell | |  | b.  Condoleezza | |  | c.  Hillary | |  | d.  Elihu | |  |  |  |

* **Question 18**

10 out of 10 points

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | | | |
| Correct | If Colin Powell had a half-brother, what would his name be? |  |  |  |
| |  |  | | --- | --- | | Selected Answer: | a.  Semicolon Powell | | Answers: | a.  Semicolon Powell | |  | b.  Burt | |  | c.  Frank | |  | d.  Bill | |  |  |  |

* **Question 19**

10 out of 10 points

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | | | |
| Correct | In the analysis class diagram, which of the following do you typically not see? |  |  |  |
| |  |  | | --- | --- | | Selected Answer: | d.  Directional arrows on associations | | Answers: | a.  Multiplicities on associations | |  | b.  Role names on associations | |  | c.  Semantic names on associations | |  | d.  Directional arrows on associations | |  |  |  |

* **Question 20**

10 out of 10 points

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | | | |
| Correct | Which of the following are used to indicate a comment in UML? |  |  |  |
| |  |  | | --- | --- | | Selected Answer: | c.  {   } | | Answers: | a.  // | |  | b.  - - | |  | c.  {   } | |  | d.  [   ] | |  |  |  |

* **Question 21**

10 out of 10 points

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | | | |
| Correct | Which of the following is not true of constraints? |  |  |  |
| |  |  | | --- | --- | | Selected Answer: | d.  They must be written in the Object Constraint Language (OCL). | | Answers: | a.  They must be true when an object instance is constructed. | |  | b.  They must be preserved by any operation that modifies attributes or links. | |  | c.  They are represented as comments in the UML model. | |  | d.  They must be written in the Object Constraint Language (OCL). | |  |  |  |

* **Question 22**

10 out of 10 points

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | | | |
| Correct | The form of part-whole relationship between classes that completely encapsulates the parts within the whole is called \_\_\_\_\_\_\_\_ |  |  |  |
| |  |  | | --- | --- | | Selected Answer: | c.  Composition | | Answers: | a.  Abstraction | |  | b.  Aggregation | |  | c.  Composition | |  | d.  Cohesion | |  |  |  |

* **Question 23**

10 out of 10 points

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | | | |
| Correct | A line that connects two classes in a UML class diagram with an open diamond on one end represents what kind of relationship? |  |  |  |
| |  |  | | --- | --- | | Selected Answer: | b.  Aggregation | | Answers: | a.  Abstraction | |  | b.  Aggregation | |  | c.  Composition | |  | d.  Cohesion | |  |  |  |

* **Question 24**

10 out of 10 points

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | | | |
| Correct | Abstract class names or operations are indicated in what manner? |  |  |  |
| |  |  | | --- | --- | | Selected Answer: | c.  Italic font | | Answers: | a.  Underline font | |  | b.  Bold font | |  | c.  Italic font | |  | d.  Stereotype  brackets | |  |  |  |

* **Question 25**

10 out of 10 points

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | | | |
| Correct | Classifier scoped attributes or operations are indicated in what manner? |  |  |  |
| |  |  | | --- | --- | | Selected Answer: | a.  Underline font | | Answers: | a.  Underline font | |  | b.  Bold font | |  | c.  Italic font | |  | d.  Stereotype  brackets | |  |  |  |