**Chapter : 4**

**Object-Oriented Systems Analysis and Design Using UML, 2/e**

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**What is Object-Orientation?**

**Results Reporter**

Out of 23 questions, you answered 8 correctly, for a final grade of 35%.

|  |  |
| --- | --- |
| 8 correct (35%) | http://highered.mcgraw-hill.com/olcweb/styles/v1_Europe/europe/bg.gif |
| 15 incorrect (65%) | http://highered.mcgraw-hill.com/olcweb/styles/v1_Europe/europe/bg.gif |
| 0 unanswered (0%) | http://highered.mcgraw-hill.com/olcweb/styles/v1_Europe/europe/bg.gif |

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| --- |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Your Results:** | | | | |
| The correct answer for each question is indicated by a This is the correct answer.. | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
|  | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| **1** | **INCORRECT** | http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | **Which of the following best describes an object?** | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | |  | |  |  |  | | --- | --- | --- | | http://highered.mcgraw-hill.com/olcweb/styles/v1_Europe/europe/radio_selected.gif | **A)** | Part of a software system that is entirely unique. | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | This is the correct answer. | |  |  |  | | --- | --- | --- | | **http://highered.mcgraw-hill.com/olcweb/styles/v1_Europe/europe/radio.gif** | **B)** | **A concept, abstraction or thing in an application domain.** | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | |  | |  |  |  | | --- | --- | --- | | http://highered.mcgraw-hill.com/olcweb/styles/v1_Europe/europe/radio.gif | **C)** | A program that represents something tangible in the problem domain. | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | |  | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
|  | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| **2** | **INCORRECT** | http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | **Which of the following best describes abstraction?** | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | |  | |  |  |  | | --- | --- | --- | | http://highered.mcgraw-hill.com/olcweb/styles/v1_Europe/europe/radio_selected.gif | **A)** | A representation of something tangible. | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | |  | |  |  |  | | --- | --- | --- | | http://highered.mcgraw-hill.com/olcweb/styles/v1_Europe/europe/radio.gif | **B)** | A representation that can be stored in a software system. | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | This is the correct answer. | |  |  |  | | --- | --- | --- | | **http://highered.mcgraw-hill.com/olcweb/styles/v1_Europe/europe/radio.gif** | **C)** | **A representation that contains only relevant details.** | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | |  | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
|  | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| **3** | **INCORRECT** | http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | **Which of the following is not a reason for modelling objects?** | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | |  | |  |  |  | | --- | --- | --- | | http://highered.mcgraw-hill.com/olcweb/styles/v1_Europe/europe/radio_selected.gif | **A)** | To produce a design for part of a software system. | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | |  | |  |  |  | | --- | --- | --- | | http://highered.mcgraw-hill.com/olcweb/styles/v1_Europe/europe/radio.gif | **B)** | To understand an aspect of the application domain. | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | This is the correct answer. | |  |  |  | | --- | --- | --- | | http://highered.mcgraw-hill.com/olcweb/styles/v1_Europe/europe/radio.gif | **C)** | **To separate data from process.** | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | |  | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
|  | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| **4** | **CORRECT** | http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | **What do all objects have?** | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | This is the correct answer. | |  |  |  | | --- | --- | --- | | http://highered.mcgraw-hill.com/olcweb/styles/v1_Europe/europe/radio_selected.gif | **A)** | **State, behaviour and identity.** | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | |  | |  |  |  | | --- | --- | --- | | http://highered.mcgraw-hill.com/olcweb/styles/v1_Europe/europe/radio.gif | **B)** | Behaviour, data and identity. | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | |  | |  |  |  | | --- | --- | --- | | http://highered.mcgraw-hill.com/olcweb/styles/v1_Europe/europe/radio.gif | **C)** | Instances, structure and similarity. | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | |  | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
|  | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| **5** | **CORRECT** | http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | **Which of the following best describes object state?** | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | This is the correct answer. | |  |  |  | | --- | --- | --- | | http://highered.mcgraw-hill.com/olcweb/styles/v1_Europe/europe/radio_selected.gif | **A)** | **The particular condition that an object is in at a given moment, determining its possible behaviours.** | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | |  | |  |  |  | | --- | --- | --- | | http://highered.mcgraw-hill.com/olcweb/styles/v1_Europe/europe/radio.gif | **B)** | Which class the object belongs to. | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | |  | |  |  |  | | --- | --- | --- | | http://highered.mcgraw-hill.com/olcweb/styles/v1_Europe/europe/radio.gif | **C)** | The semantics of the object. | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | |  | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
|  | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| **6** | **INCORRECT** | http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | **Which of the following best describes object behaviour?** | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | |  | |  |  |  | | --- | --- | --- | | http://highered.mcgraw-hill.com/olcweb/styles/v1_Europe/europe/radio_selected.gif | **A)** | What the object is able to do to other objects. | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | This is the correct answer. | |  |  |  | | --- | --- | --- | | http://highered.mcgraw-hill.com/olcweb/styles/v1_Europe/europe/radio.gif | **B)** | **What the object is able to do for other objects.** | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | |  | |  |  |  | | --- | --- | --- | | http://highered.mcgraw-hill.com/olcweb/styles/v1_Europe/europe/radio.gif | **C)** | What the object is able to do to itself. | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | |  | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
|  | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| **7** | **CORRECT** | http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | **Which of the following is a useful set of questions to ask when modelling an object, according to Rebecca Wirfs-Brock?** | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | This is the correct answer. | |  |  |  | | --- | --- | --- | | http://highered.mcgraw-hill.com/olcweb/styles/v1_Europe/europe/radio_selected.gif | **A)** | **Who am I, what can I do and what do I know?** | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | |  | |  |  |  | | --- | --- | --- | | http://highered.mcgraw-hill.com/olcweb/styles/v1_Europe/europe/radio.gif | **B)** | Where am I, what am I and who do I know? | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | |  | |  |  |  | | --- | --- | --- | | http://highered.mcgraw-hill.com/olcweb/styles/v1_Europe/europe/radio.gif | **C)** | What do I have, what can I get and what can I do? | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | |  | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
|  | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| **8** | **INCORRECT** | http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | **Which of the following is not a description of a class?** | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | |  | |  |  |  | | --- | --- | --- | | http://highered.mcgraw-hill.com/olcweb/styles/v1_Europe/europe/radio_selected.gif | **A)** | A set of objects that share the same behaviour, attributes, relationships and semantics. | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | |  | |  |  |  | | --- | --- | --- | | http://highered.mcgraw-hill.com/olcweb/styles/v1_Europe/europe/radio.gif | **B)** | An abstract descriptor for a set of instances with certain logical similarities to each other. | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | This is the correct answer. | |  |  |  | | --- | --- | --- | | http://highered.mcgraw-hill.com/olcweb/styles/v1_Europe/europe/radio.gif | **C)** | **A set of objects that collaborate together to achieve some common objective.** | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | |  | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
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| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| **9** | **CORRECT** | http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | **Which of the following best describes the relationship between an object and its class?** | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | This is the correct answer. | |  |  |  | | --- | --- | --- | | http://highered.mcgraw-hill.com/olcweb/styles/v1_Europe/europe/radio_selected.gif | **A)** | **The structure and permitted behaviours of an object are defined by its class.** | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | |  | |  |  |  | | --- | --- | --- | | http://highered.mcgraw-hill.com/olcweb/styles/v1_Europe/europe/radio.gif | **B)** | A class is a container that holds a collection of similar objects. | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | |  | |  |  |  | | --- | --- | --- | | http://highered.mcgraw-hill.com/olcweb/styles/v1_Europe/europe/radio.gif | **C)** | An object is an implementation of a class. | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | |  | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
|  | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| **10** | **INCORRECT** | http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | **What is generalization?** | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | |  | |  |  |  | | --- | --- | --- | | http://highered.mcgraw-hill.com/olcweb/styles/v1_Europe/europe/radio_selected.gif | **A)** | A process of broadening the scope of an object, such that it becomes more generally useful. | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | This is the correct answer. | |  |  |  | | --- | --- | --- | | http://highered.mcgraw-hill.com/olcweb/styles/v1_Europe/europe/radio.gif | **B)** | **A kind of relationship between a more general element and a more specific element.** | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | |  | |  |  |  | | --- | --- | --- | | http://highered.mcgraw-hill.com/olcweb/styles/v1_Europe/europe/radio.gif | **C)** | A process of collecting together objects into their respective classes. | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | |  | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
|  | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| **11** | **CORRECT** | http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | **Which of the following best describes a type?** | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | This is the correct answer. | |  |  |  | | --- | --- | --- | | http://highered.mcgraw-hill.com/olcweb/styles/v1_Europe/europe/radio_selected.gif | **A)** | **A description of a set of objects with similar behaviours.** | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | |  | |  |  |  | | --- | --- | --- | | http://highered.mcgraw-hill.com/olcweb/styles/v1_Europe/europe/radio.gif | **B)** | A superclass in a generalization hierarchy. | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | |  | |  |  |  | | --- | --- | --- | | http://highered.mcgraw-hill.com/olcweb/styles/v1_Europe/europe/radio.gif | **C)** | A class with a characteristic that distinguishes it from all other classes. | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | |  | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
|  | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| **12** | **INCORRECT** | http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | **Which of the following is not an advantage of using generalization?** | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | |  | |  |  |  | | --- | --- | --- | | http://highered.mcgraw-hill.com/olcweb/styles/v1_Europe/europe/radio_selected.gif | **A)** | Generalization helps to organize a model so that the degree of similarity between classes is made more explicit. | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | |  | |  |  |  | | --- | --- | --- | | http://highered.mcgraw-hill.com/olcweb/styles/v1_Europe/europe/radio.gif | **B)** | A generalization hierarchy is easy to extend to fit a changing picture. | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | This is the correct answer. | |  |  |  | | --- | --- | --- | | http://highered.mcgraw-hill.com/olcweb/styles/v1_Europe/europe/radio.gif | **C)** | **Generalization helps to encapsulate classes and subsystems so that their implementation is hidden from other parts of the system.** | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | |  | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
|  | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| **13** | **INCORRECT** | http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | **How does generalization differ from inheritance?** | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | |  | |  |  |  | | --- | --- | --- | | http://highered.mcgraw-hill.com/olcweb/styles/v1_Europe/europe/radio_selected.gif | **A)** | It doesn't - they are the same thing. | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | This is the correct answer. | |  |  |  | | --- | --- | --- | | http://highered.mcgraw-hill.com/olcweb/styles/v1_Europe/europe/radio.gif | **B)** | **Inheritance is a mechanism by which some OO languages implement generalization.** | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | |  | |  |  |  | | --- | --- | --- | | http://highered.mcgraw-hill.com/olcweb/styles/v1_Europe/europe/radio.gif | **C)** | With generalization each class has only one superclass, whereas with inheritance each class has two or more superclasses. | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | |  | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
|  | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| **14** | **CORRECT** | http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | **Which of the following is not a characteristic of a subclass?** | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | This is the correct answer. | |  |  |  | | --- | --- | --- | | http://highered.mcgraw-hill.com/olcweb/styles/v1_Europe/europe/radio_selected.gif | **A)** | **A subclass can only have superclasses, it cannot have subclasses of its own.** | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | |  | |  |  |  | | --- | --- | --- | | http://highered.mcgraw-hill.com/olcweb/styles/v1_Europe/europe/radio.gif | **B)** | A subclass inherits all the characteristics of its superclass. | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | |  | |  |  |  | | --- | --- | --- | | http://highered.mcgraw-hill.com/olcweb/styles/v1_Europe/europe/radio.gif | **C)** | A subclass includes at least one detail that is not shared by its superclass. | |  |  |  | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | |  | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
|  | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| **15** | **INCORRECT** | http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | **What is meant by 'transitive operation' in the context of generalization and inheritance?** | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | |  | |  |  |  | | --- | --- | --- | | http://highered.mcgraw-hill.com/olcweb/styles/v1_Europe/europe/radio_selected.gif | **A)** | An operation in a superclass may be overwritten by a different operation in a subclass. | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | |  | |  |  |  | | --- | --- | --- | | http://highered.mcgraw-hill.com/olcweb/styles/v1_Europe/europe/radio.gif | **B)** | An operation in a superclass may not be overwritten by a different operation in a subclass. | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | This is the correct answer. | |  |  |  | | --- | --- | --- | | http://highered.mcgraw-hill.com/olcweb/styles/v1_Europe/europe/radio.gif | **C)** | **A subclass inherits characteristics from all its superclasses at all levels.** | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | |  | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
|  | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| **16** | **INCORRECT** | http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | **What is the significance of message-passing in an OO system?** | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | |  | |  |  |  | | --- | --- | --- | | http://highered.mcgraw-hill.com/olcweb/styles/v1_Europe/europe/radio_selected.gif | **A)** | Messages represent input from users that tells the software system what to do. | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | This is the correct answer. | |  |  |  | | --- | --- | --- | | http://highered.mcgraw-hill.com/olcweb/styles/v1_Europe/europe/radio.gif | **B)** | **Objects exchange messages in order to communicate with each other.** | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | |  | |  |  |  | | --- | --- | --- | | http://highered.mcgraw-hill.com/olcweb/styles/v1_Europe/europe/radio.gif | **C)** | Messages represent output to users that show the results of processing. | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | |  | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
|  | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| **17** | **INCORRECT** | http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | **What is a message protocol or signature?** | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | |  | |  |  |  | | --- | --- | --- | | http://highered.mcgraw-hill.com/olcweb/styles/v1_Europe/europe/radio_selected.gif | **A)** | A message protocol is a valid sequence of keystrokes by a user. | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | |  | |  |  |  | | --- | --- | --- | | http://highered.mcgraw-hill.com/olcweb/styles/v1_Europe/europe/radio.gif | **B)** | A message protocol is a valid sequence of operations in a series of different objects. | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | This is the correct answer. | |  |  |  | | --- | --- | --- | | http://highered.mcgraw-hill.com/olcweb/styles/v1_Europe/europe/radio.gif | **C)** | **A message protocol is the interface to an operation.** | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | |  | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
|  | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| **18** | **CORRECT** | http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | **What is meant by multiple inheritance?** | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | This is the correct answer. | |  |  |  | | --- | --- | --- | | http://highered.mcgraw-hill.com/olcweb/styles/v1_Europe/europe/radio_selected.gif | **A)** | **Multiple inheritance signifies that a class simultaneously belongs to more than one generalization hierarchy.** | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | |  | |  |  |  | | --- | --- | --- | | http://highered.mcgraw-hill.com/olcweb/styles/v1_Europe/europe/radio.gif | **B)** | Multiple inheritance signifies that a class has more than one superclass. | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | |  | |  |  |  | | --- | --- | --- | | http://highered.mcgraw-hill.com/olcweb/styles/v1_Europe/europe/radio.gif | **C)** | Multiple inheritance signifies that a class can have different superclasses at different times. | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | |  | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
|  | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| **19** | **INCORRECT** | http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | **Which of the following best describes encapsulation?** | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | |  | |  |  |  | | --- | --- | --- | | http://highered.mcgraw-hill.com/olcweb/styles/v1_Europe/europe/radio_selected.gif | **A)** | The implementation of an object can only be changed by its original programmer. | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | This is the correct answer. | |  |  |  | | --- | --- | --- | | http://highered.mcgraw-hill.com/olcweb/styles/v1_Europe/europe/radio.gif | **B)** | **Data within an object can only be accessed by passing a valid message to one of its own operations.** | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | |  | |  |  |  | | --- | --- | --- | | http://highered.mcgraw-hill.com/olcweb/styles/v1_Europe/europe/radio.gif | **C)** | Data within an object can only be accessed by passing a valid message to its class. | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | |  | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
|  | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| **20** | **INCORRECT** | http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | **Which of the following best describes an object's interface?** | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | |  | |  |  |  | | --- | --- | --- | | http://highered.mcgraw-hill.com/olcweb/styles/v1_Europe/europe/radio_selected.gif | **A)** | The view that an object presents to users of the system. | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | |  | |  |  |  | | --- | --- | --- | | http://highered.mcgraw-hill.com/olcweb/styles/v1_Europe/europe/radio.gif | **B)** | The links that an object has with other objects. | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | This is the correct answer. | |  |  |  | | --- | --- | --- | | http://highered.mcgraw-hill.com/olcweb/styles/v1_Europe/europe/radio.gif | **C)** | **The complete set of signatures for all the object's operations.** | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | |  | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
|  | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| **21** | **INCORRECT** | http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | **Which of the following best describes polymorphism?** | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | |  | |  |  |  | | --- | --- | --- | | http://highered.mcgraw-hill.com/olcweb/styles/v1_Europe/europe/radio_selected.gif | **A)** | The capacity of an object to behave in different ways at different times according to its current state. | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | This is the correct answer. | |  |  |  | | --- | --- | --- | | http://highered.mcgraw-hill.com/olcweb/styles/v1_Europe/europe/radio.gif | **B)** | **The capacity of different objects to respond to a similar message in appropriate but different ways.** | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | |  | |  |  |  | | --- | --- | --- | | http://highered.mcgraw-hill.com/olcweb/styles/v1_Europe/europe/radio.gif | **C)** | The capacity of an object to send different messages to different objects according to their class. | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | |  | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
|  | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| **22** | **CORRECT** | http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | **Which of the following is a valid reason why it is difficult to design event-driven software in a procedural manner?** | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | This is the correct answer. | |  |  |  | | --- | --- | --- | | http://highered.mcgraw-hill.com/olcweb/styles/v1_Europe/europe/radio_selected.gif | **A)** | **It is difficult to anticipate and design for all possible sequences of use.** | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | |  | |  |  |  | | --- | --- | --- | | http://highered.mcgraw-hill.com/olcweb/styles/v1_Europe/europe/radio.gif | **B)** | Procedurally designed programs are not capable of responding quickly to events. | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | |  | |  |  |  | | --- | --- | --- | | http://highered.mcgraw-hill.com/olcweb/styles/v1_Europe/europe/radio.gif | **C)** | Procedural programs are only suitable for record-based data structures. | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | |  | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
|  | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| **23** | **INCORRECT** | http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | **Which of the following is not an advantage of modular software design?** | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | |  | |  |  |  | | --- | --- | --- | | http://highered.mcgraw-hill.com/olcweb/styles/v1_Europe/europe/radio_selected.gif | **A)** | Modular systems are typically more reliable in use. | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | |  | |  |  |  | | --- | --- | --- | | http://highered.mcgraw-hill.com/olcweb/styles/v1_Europe/europe/radio.gif | **B)** | Modular systems can be implemented in small, manageable chunks. | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | This is the correct answer. | |  |  |  | | --- | --- | --- | | http://highered.mcgraw-hill.com/olcweb/styles/v1_Europe/europe/radio.gif | **C)** | **Modular systems are independent of the operating system that they run on.** | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | |  | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |