**Self-test Questions**

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|  |  |  |  |  |
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| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| **1** | http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | 1. http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif Which of the following is true? | | |
|  | | http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | **A)**http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | Identifying what messages are passed between objects is a straightforward process. |
|  | | http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | **B)**http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | Message passing is a metaphor used to describe object interaction. |
|  | | http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | **C)**http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | Message passing is only concerned with query operations. |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| **2** | http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | 1. http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif Which of the following is true about boundary objects? | | |
|  | | http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | **A)**http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | The identification and specification of boundary objects is purely a design activity. |
|  | | http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | **B)**http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | The identification and specification of boundary objects is part of requirements specification. |
|  | | http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | **C)**http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | The identification and specification of boundary objects is considered in both analysis and design but in different ways. |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| **3** | http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | 1. http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif Which is the correct UML definition of a collaboration? | | |
|  | | http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | **A)**http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | A collaboration describes the messages between objects. |
|  | | http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | **B)**http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | A collaboration describes objects that share functionality. |
|  | | http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | **C)**http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | A collaboration describes the structure of instances playing roles in a behavior and their relationships. |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| **4** | http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | 1. http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif An interaction sequence diagram drawn during analysis differs from one drawn during design which of the following ways? | | |
|  | | http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | **A)**http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | It normally does not include design objects or detailed specifications of message signatures. |
|  | | http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | **B)**http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | It does not include boundary objects. |
|  | | http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | **C)**http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | It does not include control objects. |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| **5** | http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | 1. http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif On the following figure which symbol represents a process activation on a sequence diagram?   http://highered.mcgraw-hill.com/sites/dl/free/0077098641/41598/ch9_p5.gif **Fig. 9.5** | | |
|  | | http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | **A)**http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | 1 |
|  | | http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | **B)**http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | 2 |
|  | | http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | **C)**http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | 3 |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| **6** | http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | 1. http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif Which of the labelled symbols in the following diagram represents a synchronous message?   http://highered.mcgraw-hill.com/sites/dl/free/0077098641/41598/ch9_p6.gif **Fig. 9.6** | | |
|  | | http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | **A)**http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | 1 |
|  | | http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | **B)**http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | 2 |
|  | | http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | **C)**http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | 3 |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| **7** | http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | 1. http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif What is meant by the term ‘thread of control’ in the context of concurrent behavior? | | |
|  | | http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | **A)**http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | A thread of control is a weak part of the control system. |
|  | | http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | **B)**http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | A thread of control is the mechanism that controls concurrent behavior. |
|  | | http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | **C)**http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | A thread of control is an execution pathway that may occur simultaneously with other execution pathways. |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| **8** | http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | 1. http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif Which of the following is an appropriate way of managing complex behavior on an interaction sequence diagram? | | |
|  | | http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | **A)**http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | A group of objects can be represented by a single lifeline. |
|  | | http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | **B)**http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | Some messages are omitted to reduce the complexity. |
|  | | http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | **C)**http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | Some objects are omitted from the diagram to reduce the complexity. |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| **9** | http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | 1. http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif Collaboration diagrams differ from interaction sequence diagrams in the following way? | | |
|  | | http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | **A)**http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | Collaboration diagrams cannot show the design detail that can be shown on a sequence diagram. |
|  | | http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | **B)**http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | Collaboration diagrams only show the collaboration and not the sequence in which the messages are sent. |
|  | | http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | **C)**http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | Collaboration diagrams show the links between the objects. |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| **10** | http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | 1. http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif In a collaboration diagram one message has the sequence number 5.1.1. Which of the following sequence numbers indicates the message that must be the immediate successor? | | |
|  | | http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | **A)**http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | A message with the sequence number 5.1.2. |
|  | | http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | **B)**http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | A message with the sequence number 5.1.1.1. |
|  | | http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | **C)**http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | A message with the sequence number 5.2.1. |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| **11** | http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | 1. http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif Which of the following is a disadvantage of collaboration diagrams? | | |
|  | | http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | **A)**http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | A collaboration diagram can only be used during analysis. |
|  | | http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | **B)**http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | A collaboration diagram cannot include guard conditions. |
|  | | http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | **C)**http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | A collaboration diagram is difficult to read if there are many messages between two objects. |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |
| **12** | http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | 1. http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif An interaction diagram should be consistent with the associated class diagram in various ways. Which of the following statements is true? | | |
|  | | http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | **A)**http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | It is always correct to show a message between two objects if there is an association between their classes. |
|  | | http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | **B)**http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | The sending object must have the object reference of the receiving object before sending an object-scope message. |
|  | | http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | **C)**http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | A message should not be shown between two objects if there is no association between their classes. |
| http://highered.mcgraw-hill.com/olcweb/styles/shared/spacer.gif | | | | |