**MCQ**

**Chapter 20:**

[The correct answer for each question is indicated by a http://highered.mheducation.com/olcweb/styles/v2_glencoe/images/correct.gif]

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| **1** | | http://highered.mheducation.com/olcweb/styles/shared/spacer.gif | http://highered.mheducation.com/olcweb/styles/shared/spacer.gifWhich of the following is not an argument for reuse? | |
|  | |  | **A)** | If some of the requirements of a project can be met by existing components then the time spent developing those components can be saved. |
|  | |  | **B)** | If components that have been used and tested in another application can be reused then the time spent testing and quality assuring the components can be saved. |
|  | | http://highered.mheducation.com/olcweb/styles/v2_glencoe/images/correct.gif | **C)** | **Reusing components allows developers to maintain their high salaries by claiming to have developed software that has in fact been developed by someone else.** |
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| **2** | | http://highered.mheducation.com/olcweb/styles/shared/spacer.gif | http://highered.mheducation.com/olcweb/styles/shared/spacer.gifWhich of the following is cited as a reason for the failure of object-oriented systems to have achieved the expected levels of reuse? | |
|  | | http://highered.mheducation.com/olcweb/styles/v2_glencoe/images/correct.gif | **A)** | **Organizations plan for reuse too late. The architecture of a system needs to be designed to support reuse and the organization needs to be structured to support reuse.** |
|  | |  | **B)** | Reuse does not actually work. There are no systems that are enough like others to benefit from the reuse of components. |
|  | |  | **C)** | Reuse only works for languages like C and Fortran in which libraries of reusable functions and procedures can be developed. |
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| **3** | | http://highered.mheducation.com/olcweb/styles/shared/spacer.gif | http://highered.mheducation.com/olcweb/styles/shared/spacer.gifWhich of the following is not a standard that helps to support reusable components? | |
|  | |  | **A)** | SOAP (Simple Object Access Protocol). |
|  | |  | **B)** | CORBA (Common Object Request Broker Architecture). |
|  | | http://highered.mheducation.com/olcweb/styles/v2_glencoe/images/correct.gif | **C)** | **ORCA (Object Reusable Component Architecture).** |
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| **4** | | http://highered.mheducation.com/olcweb/styles/shared/spacer.gif | http://highered.mheducation.com/olcweb/styles/shared/spacer.gifWhich of the following kinds of organization is most likely to benefit from developing a reuse-driven software development process, according to Jacobson et al.? | |
|  | | http://highered.mheducation.com/olcweb/styles/v2_glencoe/images/correct.gif | **A)** | **Organizations producing hardware products with embedded software.** |
|  | |  | **B)** | Small software companies producing one-off products. |
|  | |  | **C)** | Government departments developing software in-house. |
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| **5** | | http://highered.mheducation.com/olcweb/styles/shared/spacer.gif | http://highered.mheducation.com/olcweb/styles/shared/spacer.gifJacobson et al. suggest there are six stages that organizations go through in developing a culture of reuse. | |
|  | |  | **A)** | Which of the following is their list of stages? Business; user; data; solution; component; repository. |
|  | | http://highered.mheducation.com/olcweb/styles/v2_glencoe/images/correct.gif | **B)** | **None; informal code reuse; black-box code reuse; managed workproduct reuse; architected reuse; domain-specific reuse-driven organization.** |
|  | |  | **C)** | Heroic individual reuse; informal code reuse; organized group code reuse; architecture-driven reuse; component-driven reuse; repository-based reuse. |
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| **6** | | http://highered.mheducation.com/olcweb/styles/shared/spacer.gif | http://highered.mheducation.com/olcweb/styles/shared/spacer.gifWhat do Allen and Frost regard as central to their model for the development of reusable code components? | |
|  | |  | **A)** | Java. |
|  | |  | **B)** | The Façade pattern. |
|  | | http://highered.mheducation.com/olcweb/styles/v2_glencoe/images/correct.gif | **C)** | **A repository.** |
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| **7** | | http://highered.mheducation.com/olcweb/styles/shared/spacer.gif | http://highered.mheducation.com/olcweb/styles/shared/spacer.gifWhat are Apperly et al.’s three workflows to support reuse? | |
|  | | http://highered.mheducation.com/olcweb/styles/v2_glencoe/images/correct.gif | **A)** | **Supply, consume and manage**. |
|  | |  | **B)** | Build, store and reuse. |
|  | |  | **C)** | Develop, repose, reuse. |
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| **8** | | http://highered.mheducation.com/olcweb/styles/shared/spacer.gif | http://highered.mheducation.com/olcweb/styles/shared/spacer.gifWhich of the following is a good definition of a reusable component? | |
|  | | http://highered.mheducation.com/olcweb/styles/v2_glencoe/images/correct.gif | **A)** | **A type class or other workproduct that has been specifically engineered to be reusable.** |
|  | |  | **B)** | Anything that appears in a component diagram. |
|  | |  | **C)** | A class or abstract superclass designed to be reused through inheritance. |
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| **9** | | http://highered.mheducation.com/olcweb/styles/shared/spacer.gif | http://highered.mheducation.com/olcweb/styles/shared/spacer.gifWhy are classes an inappropriate level at which to try to achieve reuse? | |
|  | | http://highered.mheducation.com/olcweb/styles/v2_glencoe/images/correct.gif | **A)** | **Attributes and associations of classes often couple them to other classes.** |
|  | |  | **B)** | Objects not classes are suitable for reuse, as they are the things that are used in real systems. |
|  | |  | **C)** | Interfaces rather than classes should be reused, and then classes developed to implement them. |
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| **10** | | http://highered.mheducation.com/olcweb/styles/shared/spacer.gif | http://highered.mheducation.com/olcweb/styles/shared/spacer.gifWhich of the following analogies is used by Allen and Frost? | |
|  | |  | **A)** | Hiding reusable components behind a façade.. |
|  | | http://highered.mheducation.com/olcweb/styles/v2_glencoe/images/correct.gif | **B)** | **Sowing and harvesting reusable components.** |
|  | |  | **C)** | Cloning reusable components from existing systems. |
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| **11** | | http://highered.mheducation.com/olcweb/styles/shared/spacer.gif | http://highered.mheducation.com/olcweb/styles/shared/spacer.gifWhat do Jacobson et al. recommend in their description of a Reuse-driven Software Engineering Business? | |
|  | | http://highered.mheducation.com/olcweb/styles/v2_glencoe/images/correct.gif | **A)** | **Designing an architecture to support reuse from the start.** |
|  | |  | **B)** | Setting up a department to check newly developed software for reusable components. |
|  | |  | **C)** | 50% of all elements of a system should be reused. |
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| **12** | | http://highered.mheducation.com/olcweb/styles/shared/spacer.gif | http://highered.mheducation.com/olcweb/styles/shared/spacer.gifWhich of the following statements best describes commercially available componentware? | |
|  | |  | **A)** | A pipedream. |
|  | |  | **B)** | Any software developed in Java. |
|  | | http://highered.mheducation.com/olcweb/styles/v2_glencoe/images/correct.gif | **C)** | **Off the shelf components using standard protocols and clearly defined interfaces.** |
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| **13** | | http://highered.mheducation.com/olcweb/styles/shared/spacer.gif | http://highered.mheducation.com/olcweb/styles/shared/spacer.gifWhich of the following best describes the Façade Pattern? | |
|  | |  | **A)** | A design pattern to hide poorly implemented software behind a solid façade. |
|  | | http://highered.mheducation.com/olcweb/styles/v2_glencoe/images/correct.gif | **B)** | **A design pattern to provide a simple unified interface to a complex sub-system.** |
|  | |  | **C)** | A design pattern to wrap legacy software in a Java interface using java.lang.Facade. |
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| **14** | | http://highered.mheducation.com/olcweb/styles/shared/spacer.gif | http://highered.mheducation.com/olcweb/styles/shared/spacer.gifIn the diagram below, which rectangle represents the Façade?  http://highered.mheducation.com/sites/dl/free/0077125363/315085/Fig20_14.JPG**Figure 20.14** | |
|  | |  | **A)** | Rectangle 1 |
|  | |  | **B)** | Rectangle 1 |
|  | | http://highered.mheducation.com/olcweb/styles/v2_glencoe/images/correct.gif | **C)** | **Rectangle 1** |
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