**MCQ**

**Chapter 13:**

[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 a role of a systems architect? | |
|  | | http://highered.mheducation.com/olcweb/styles/shared/spacer.gif | **A)**http://highered.mheducation.com/olcweb/styles/shared/spacer.gif | Systems architects are concerned with solving problems. |
|  | | http://highered.mheducation.com/olcweb/styles/v2_glencoe/images/correct.gif | **B)**http://highered.mheducation.com/olcweb/styles/shared/spacer.gif | **Systems architects carry out requirements capture and analysis.** |
|  | | http://highered.mheducation.com/olcweb/styles/shared/spacer.gif | **C)**http://highered.mheducation.com/olcweb/styles/shared/spacer.gif | Systems architects act to represent the interests of the client. |
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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 the best definition of architecture in an IT context? | |
|  | | http://highered.mheducation.com/olcweb/styles/v2_glencoe/images/correct.gif | **A)**http://highered.mheducation.com/olcweb/styles/shared/spacer.gif | **Architecture is the organization of a system in terms of its components, their relationships and the principles guiding their design.** |
|  | | http://highered.mheducation.com/olcweb/styles/shared/spacer.gif | **B)**http://highered.mheducation.com/olcweb/styles/shared/spacer.gif | Architecture is the structure of the organization that requires the information system and the relationships between departments. |
|  | | http://highered.mheducation.com/olcweb/styles/shared/spacer.gif | **C)**http://highered.mheducation.com/olcweb/styles/shared/spacer.gif | Architecture is the design of the system in terms of the database and standards for human-computer interaction. |
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| http://highered.mheducation.com/olcweb/styles/shared/spacer.gif | | | | |
| **3** | | http://highered.mheducation.com/olcweb/styles/shared/spacer.gif | http://highered.mheducation.com/olcweb/styles/shared/spacer.gifThe Rational Unified Process defines 4+1 views. Which of the following is a list of these views? | |
|  | | http://highered.mheducation.com/olcweb/styles/v2_glencoe/images/correct.gif | **A)**http://highered.mheducation.com/olcweb/styles/shared/spacer.gif | **Use case view, logical view, implementation view, process view and deployment view.** |
|  | | http://highered.mheducation.com/olcweb/styles/shared/spacer.gif | **B)**http://highered.mheducation.com/olcweb/styles/shared/spacer.gif | Use case view, analysis view, design view, deployment view, implementation view. |
|  | | http://highered.mheducation.com/olcweb/styles/shared/spacer.gif | **C)**http://highered.mheducation.com/olcweb/styles/shared/spacer.gif | Use case view, conceptual view, module view, code view, execution view. |
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| http://highered.mheducation.com/olcweb/styles/shared/spacer.gif | | | | |
| **4** | | http://highered.mheducation.com/olcweb/styles/shared/spacer.gif | http://highered.mheducation.com/olcweb/styles/shared/spacer.gifWhich of the following is a reason for using architectural models? | |
|  | | http://highered.mheducation.com/olcweb/styles/shared/spacer.gif | **A)**http://highered.mheducation.com/olcweb/styles/shared/spacer.gif | A software architect uses architectural models to ensure that the network cabling can be installed in the organization’s offices. |
|  | | http://highered.mheducation.com/olcweb/styles/shared/spacer.gif | **B)**http://highered.mheducation.com/olcweb/styles/shared/spacer.gif | A software architect uses architectural models to record scenarios that describe how the system will be used. |
|  | | http://highered.mheducation.com/olcweb/styles/v2_glencoe/images/correct.gif | **C)**http://highered.mheducation.com/olcweb/styles/shared/spacer.gif | **A software architect uses architectural models to reason about the system and the way it will operate from different perspectives.** |
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| http://highered.mheducation.com/olcweb/styles/shared/spacer.gif | | | | |
| **5** | | http://highered.mheducation.com/olcweb/styles/shared/spacer.gif | http://highered.mheducation.com/olcweb/styles/shared/spacer.gifWhat does PIM stand for? | |
|  | | http://highered.mheducation.com/olcweb/styles/shared/spacer.gif | **A)**http://highered.mheducation.com/olcweb/styles/shared/spacer.gif | Portable integrated model. |
|  | | http://highered.mheducation.com/olcweb/styles/v2_glencoe/images/correct.gif | **B)**http://highered.mheducation.com/olcweb/styles/shared/spacer.gif | **Platform-independent model.** |
|  | | http://highered.mheducation.com/olcweb/styles/shared/spacer.gif | **C)**http://highered.mheducation.com/olcweb/styles/shared/spacer.gif | Persistent information model. |
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| http://highered.mheducation.com/olcweb/styles/shared/spacer.gif | | | | |
| **6** | | http://highered.mheducation.com/olcweb/styles/shared/spacer.gif | http://highered.mheducation.com/olcweb/styles/shared/spacer.gifWhat are the main influences on systems architecture? | |
|  | | http://highered.mheducation.com/olcweb/styles/v2_glencoe/images/correct.gif | **A)**http://highered.mheducation.com/olcweb/styles/shared/spacer.gif | **Existing systems, enterprise architectures and technical reference architectures.** |
|  | | http://highered.mheducation.com/olcweb/styles/shared/spacer.gif | **B)**http://highered.mheducation.com/olcweb/styles/shared/spacer.gif | Model-driven architectures, business organization and government legislation. |
|  | | http://highered.mheducation.com/olcweb/styles/shared/spacer.gif | **C)**http://highered.mheducation.com/olcweb/styles/shared/spacer.gif | Platform-independent models, platform-specific models and model-driven architecture. |
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| **7** | | http://highered.mheducation.com/olcweb/styles/shared/spacer.gif | http://highered.mheducation.com/olcweb/styles/shared/spacer.gifThe subdivision of an information system into subsystems brings which of the following benefits? | |
|  | | http://highered.mheducation.com/olcweb/styles/shared/spacer.gif | **A)**http://highered.mheducation.com/olcweb/styles/shared/spacer.gif | The constructed system will be smaller and hence easier to maintain. |
|  | | http://highered.mheducation.com/olcweb/styles/shared/spacer.gif | **B)**http://highered.mheducation.com/olcweb/styles/shared/spacer.gif | It improves the performance of the system. |
|  | | http://highered.mheducation.com/olcweb/styles/v2_glencoe/images/correct.gif | **C)**http://highered.mheducation.com/olcweb/styles/shared/spacer.gif | **It makes the system easier to maintain.** |
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| http://highered.mheducation.com/olcweb/styles/shared/spacer.gif | | | | |
| **8** | | http://highered.mheducation.com/olcweb/styles/shared/spacer.gif | http://highered.mheducation.com/olcweb/styles/shared/spacer.gifWhich of the following statements is true about a client–server architecture? | |
|  | | http://highered.mheducation.com/olcweb/styles/shared/spacer.gif | **A)**http://highered.mheducation.com/olcweb/styles/shared/spacer.gif | The client interface must be specified first. |
|  | | http://highered.mheducation.com/olcweb/styles/shared/spacer.gif | **B)**http://highered.mheducation.com/olcweb/styles/shared/spacer.gif | The server only provides the functionality required by the client. |
|  | | http://highered.mheducation.com/olcweb/styles/v2_glencoe/images/correct.gif | **C)**http://highered.mheducation.com/olcweb/styles/shared/spacer.gif | **The client requests services from the server.** |
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| http://highered.mheducation.com/olcweb/styles/shared/spacer.gif | | | | |
| **9** | | http://highered.mheducation.com/olcweb/styles/shared/spacer.gif | http://highered.mheducation.com/olcweb/styles/shared/spacer.gifWhich of the following is true about a closed layered architecture? | |
|  | | http://highered.mheducation.com/olcweb/styles/shared/spacer.gif | **A)**http://highered.mheducation.com/olcweb/styles/shared/spacer.gif | Performance is improved by allowing a layer to communicate with any layers beneath it. |
|  | | http://highered.mheducation.com/olcweb/styles/shared/spacer.gif | **B)**http://highered.mheducation.com/olcweb/styles/shared/spacer.gif | The architecture is less open to change. |
|  | | http://highered.mheducation.com/olcweb/styles/v2_glencoe/images/correct.gif | **C)**http://highered.mheducation.com/olcweb/styles/shared/spacer.gif | **A layer may only communicate with the layer directly beneath it.** |
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| http://highered.mheducation.com/olcweb/styles/shared/spacer.gif | | | | |
| **10** | | http://highered.mheducation.com/olcweb/styles/shared/spacer.gif | http://highered.mheducation.com/olcweb/styles/shared/spacer.gifWhich of the following is true about an open layered architecture? | |
|  | | http://highered.mheducation.com/olcweb/styles/shared/spacer.gif | **A)**http://highered.mheducation.com/olcweb/styles/shared/spacer.gif | System performance may be reduced. |
|  | | http://highered.mheducation.com/olcweb/styles/shared/spacer.gif | **B)**http://highered.mheducation.com/olcweb/styles/shared/spacer.gif | It is more open to change. |
|  | | http://highered.mheducation.com/olcweb/styles/v2_glencoe/images/correct.gif | **C)**http://highered.mheducation.com/olcweb/styles/shared/spacer.gif | **It is less easy to maintain.** |
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| http://highered.mheducation.com/olcweb/styles/shared/spacer.gif | | | | |
| **11** | | http://highered.mheducation.com/olcweb/styles/shared/spacer.gif | http://highered.mheducation.com/olcweb/styles/shared/spacer.gifWhen constructing a layered architecture which of following is not a specific consideration? | |
|  | | http://highered.mheducation.com/olcweb/styles/shared/spacer.gif | **A)**http://highered.mheducation.com/olcweb/styles/shared/spacer.gif | Maintaining the interfaces for each layer. |
|  | | http://highered.mheducation.com/olcweb/styles/v2_glencoe/images/correct.gif | **B)**http://highered.mheducation.com/olcweb/styles/shared/spacer.gif | **Maintaining a consistent level of granularity for subsystems.** |
|  | | http://highered.mheducation.com/olcweb/styles/shared/spacer.gif | **C)**http://highered.mheducation.com/olcweb/styles/shared/spacer.gif | The further subdivision of complex layers. |
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| http://highered.mheducation.com/olcweb/styles/shared/spacer.gif | | | | |
| **12** | | http://highered.mheducation.com/olcweb/styles/shared/spacer.gif | http://highered.mheducation.com/olcweb/styles/shared/spacer.gifIn the Model–View–Controller architecture which of the following best describes the role of the Model element? | |
|  | | http://highered.mheducation.com/olcweb/styles/v2_glencoe/images/correct.gif | **A)**http://highered.mheducation.com/olcweb/styles/shared/spacer.gif | **It informs each view when model data has changed.** |
|  | | http://highered.mheducation.com/olcweb/styles/shared/spacer.gif | **B)**http://highered.mheducation.com/olcweb/styles/shared/spacer.gif | It ensures that the view updates its presentation of data. |
|  | | http://highered.mheducation.com/olcweb/styles/shared/spacer.gif | **C)**http://highered.mheducation.com/olcweb/styles/shared/spacer.gif | It accepts user input in the form of events, and triggers the execution of operations. |
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| http://highered.mheducation.com/olcweb/styles/shared/spacer.gif | | | | |
| **13** | | http://highered.mheducation.com/olcweb/styles/shared/spacer.gif | http://highered.mheducation.com/olcweb/styles/shared/spacer.gifThe advantages of the Model–View–Controller architecture include which of the following? | |
|  | | http://highered.mheducation.com/olcweb/styles/shared/spacer.gif | **A)**http://highered.mheducation.com/olcweb/styles/shared/spacer.gif | It is best suited to process control applications. |
|  | | http://highered.mheducation.com/olcweb/styles/shared/spacer.gif | **B)**http://highered.mheducation.com/olcweb/styles/shared/spacer.gif | It places complex functionality in the controller components. |
|  | | http://highered.mheducation.com/olcweb/styles/v2_glencoe/images/correct.gif | **C)**http://highered.mheducation.com/olcweb/styles/shared/spacer.gif | **It supports diverse styles of view and controller.** |
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| http://highered.mheducation.com/olcweb/styles/shared/spacer.gif | | | | |
| **14** | | http://highered.mheducation.com/olcweb/styles/shared/spacer.gif | http://highered.mheducation.com/olcweb/styles/shared/spacer.gifWhich of the following is a property of a broker architecture? | |
|  | | http://highered.mheducation.com/olcweb/styles/shared/spacer.gif | **A)**http://highered.mheducation.com/olcweb/styles/shared/spacer.gif | It improves performance while providing a client component with services. |
|  | | http://highered.mheducation.com/olcweb/styles/v2_glencoe/images/correct.gif | **B)**http://highered.mheducation.com/olcweb/styles/shared/spacer.gif | **It hides the server components from the client components.** |
|  | | http://highered.mheducation.com/olcweb/styles/shared/spacer.gif | **C)**http://highered.mheducation.com/olcweb/styles/shared/spacer.gif | It acts a server component. |
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| http://highered.mheducation.com/olcweb/styles/shared/spacer.gif | | | | |
| **15** | | http://highered.mheducation.com/olcweb/styles/shared/spacer.gif | http://highered.mheducation.com/olcweb/styles/shared/spacer.gifA scheduler provides which of the following facilities? | |
|  | | http://highered.mheducation.com/olcweb/styles/shared/spacer.gif | **A)**http://highered.mheducation.com/olcweb/styles/shared/spacer.gif | It is useful for allocating computer-processing resources when time constraints are not tight. |
|  | | http://highered.mheducation.com/olcweb/styles/shared/spacer.gif | **B)**http://highered.mheducation.com/olcweb/styles/shared/spacer.gif | It determines which parts of the system execute in a pre-determined sequence. |
|  | | http://highered.mheducation.com/olcweb/styles/v2_glencoe/images/correct.gif | **C)**http://highered.mheducation.com/olcweb/styles/shared/spacer.gif | **It can be used to ensure that each thread of control operates within the constraints on its response time.** |
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| http://highered.mheducation.com/olcweb/styles/shared/spacer.gif | | | | |
| **16** | | http://highered.mheducation.com/olcweb/styles/shared/spacer.gif | http://highered.mheducation.com/olcweb/styles/shared/spacer.gifThe allocation of a system to multiple processors involves which of the following? | |
|  | | http://highered.mheducation.com/olcweb/styles/v2_glencoe/images/correct.gif | **A)**http://highered.mheducation.com/olcweb/styles/shared/spacer.gif | **Concurrency requirements for each subsystem should be identified.** |
|  | | http://highered.mheducation.com/olcweb/styles/shared/spacer.gif | **B)**http://highered.mheducation.com/olcweb/styles/shared/spacer.gif | Each processor must use local data only. |
|  | | http://highered.mheducation.com/olcweb/styles/shared/spacer.gif | **C)**http://highered.mheducation.com/olcweb/styles/shared/spacer.gif | Each processor must be able to operate independently. |
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| http://highered.mheducation.com/olcweb/styles/shared/spacer.gif | | | | |
| **17** | | http://highered.mheducation.com/olcweb/styles/shared/spacer.gif | http://highered.mheducation.com/olcweb/styles/shared/spacer.gifWhat is system design? | |
|  | | http://highered.mheducation.com/olcweb/styles/v2_glencoe/images/correct.gif | **A)**http://highered.mheducation.com/olcweb/styles/shared/spacer.gif | **Designing the architecture of the system and setting standards, for example for user interface design.** |
|  | | http://highered.mheducation.com/olcweb/styles/shared/spacer.gif | **B)**http://highered.mheducation.com/olcweb/styles/shared/spacer.gif | Designing the inputs and outputs of the system, processes and data storage. |
|  | | http://highered.mheducation.com/olcweb/styles/shared/spacer.gif | **C)**http://highered.mheducation.com/olcweb/styles/shared/spacer.gif | Designing classes that will implement the system in an object-oriented language. |
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