MCQ

Chapter 08: Refining Requirements Model

Q1. Which of the following can be called Component-based development?
A. Assembling software from pre-existing components
B. Assembling software by building separate units and integrating these units together
C. Building components for others
D. Building components for own use only
Answer: A, C

Q2. Why are components hard?

A. Components are built using low-level languages
B. Difficulties of model generations for components are built using structured languages rather than object-oriented languages
C. Programmers often are comfortable with others works - known as NIH syndrome
D. Components are hard to maintain
Answer: B, C [See page 211 and slides]

Q3. Which are the reasons that make component-based development hard?
A. NIH syndrome, which mainly afflicts programmers
B. Components generally are written in hard programming language
C. Modern object oriented languages do not support component building
D. Component are redeveloped using functionality-based decomposition which affects object orientation
Answer: A, D

Q4. Which one is not a contribution of object-orientation to component-based development?
A. Encapsulation of internal details makes it easier to use components in systems for which they were not designed
B. Generalization hierarchies make it easier to create new specialized classes when they are needed
C. Composition and aggregation structures can be used to encapsulate components
D. Hardly typed nature of object-orientation makes data secure
Answer: D

Q5. Which one is considered strong association?
A. Composition
B. Aggregation
Answer: A

Q6. Students attend several classes and if any class is cancelled, students are not destroyed. What type of association exists between a students and class?

A. Composition
B. Aggregation
Answer: B

Q7. A meal is made of ingredients. Ingredient is in only one meal at a time and if you throw a meal its ingredients are also lost. What type of association exists between a meal and ingredients?

A. Composition
B. Aggregation
Answer: A

Q8. How two classes may differ?

A. In behaviour (**operations or methods**)
B. In data (**attributes**)
C. In associations with other classes
D. In how many objects originate from the classes
Answer: A, B, C [**Number of instances does not matter**]

Q9. Which of the following are the elements of a pattern?

A. A context
B. Forces
C. A platform
D. A software configuration
Answer: A, B, D

Q10. _____patterns are groups of concepts useful in modelling requirements.
Which one best fits the blank space?

A. Analysis
B. Architectural
C. Design
D. Structural

Answer: A

Q11. _____patterns describe the structure of major components of a software system.
Which one best fits the blank space?

A. Analysis
B. Architectural
C. Design
D. Structural

Answer: B

Q12. _____patterns describe the structure and interaction of smaller software components.
Which one best fits the blank space?

A. Analysis
B. Architectural
C. Design
D. Structural

Answer: C