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State Finished

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Time taken 1 hour

Marks 32.00/35.00

Grade 9.14 out of 10.00 (91%)

Question 1

Correct

Mark 1.00 out of 1.00

Below are the basic elements of structural models, except:

Select one:

- ☐ 1. Attributes
- ☐ 2. Classes
- ☐ 3. Operations
- ☒ 4. Workflows ✓
- ☐ 5. Relationships

The correct answer is: Workflows

Question 2

Correct

Mark 1.00 out of 1.00

Which objects identification approach that performed by the reviewing the UC diagram and examining the text in the UC descriptions to identify potential objects, attributes, operations, and relationships?

Select one:

- ☐ 1. Brainstorming
- ☒ 2. Textual analysis ✓
- ☐ 3. Behavior analysis
- ☐ 4. Common object lists
- ☐ 5. Screening

The correct answer is: Textual analysis

Question 3

Correct

Mark 1.00 out of 1.00

A generalization is relationship and an aggregation is relationship. Besides, association is another relationship that form of the aggregation relationship.

Select one:

- ☐ 1. A-part-of, a-kind-of, weaker
- ☐ 2. A-part-of, a-kind-of, stronger
- ☐ 3. A-kind-of, a-part-of, stronger
- ☐ 4. A-kind-of, a-kind-of, weaker
- ☒ 5. A-kind-of, a-part-of, weaker ✓

The correct answer is: A-kind-of, a-part-of, weaker

Question 4

Correct

Mark 1.00 out of 1.00

One of the primary purposes of the structural model is to create a vocabulary that can be used by the analyst and the users.

Select one:

- ☒ True ✓
- ☐ False

The correct answer is 'True'.

Question 5

Correct

Mark 1.00 out of 1.00

Given the below statements: 1) Is a representative of all things which the system will need to capture and store 2) Has a name typed in italic and centered in its top component 3) Has a list of attributes in its middle compartment 4) Has a list of operations in its middle compartment Which statements are true about a class in class diagram?

Select one:

- ☐ 1. 1), 2), 3)
- ☒ 2. 1), 3) ✓
- ☐ 3. 2), 4)
- ☐ 4. 4)
- ☐ 5. All statements are true

The correct answer is: 1), 3)

Question 6

Correct

Mark 1.00 out of 1.00

Below are the use-case-driven process that can be used to create the structural model of a problem domain: 1) Create class diagram 2) Review class diagram 3) Create CRC cards 4) Role play the CRC cards 5) Review the CRC cards 6) Review the models 7) Incorporate patterns The best practice of steps order to create a structural model are ...

Select one:

- ☐ 1. 1 - 2 - 3 - 4 - 5 - 6 - 7
- ☐ 2. 1 - 2 - 7 - 6 - 3 - 4 - 5
- ☐ 3. 3 - 4 - 5 - 1 - 2 - 6 - 7
- ☒ 4. 3 - 5 - 4 - 1 - 2 - 7 - 6 ✓
- ☐ 5. 7 - 3 - 4 - 5 - 1 - 2 - 6

The correct answer is: 3 - 5 - 4 - 1 - 2 - 7 - 6

Question 7

Correct

Mark 1.00 out of 1.00

Structural model consists of following matters, except:

Select one:

- ☐ 1. Analysis classes, attributes, and operations
- ☐ 2. Relationships among the analysis classes
- ☒ 3. Analysis classes, attributes, and user-interface ✓
- ☐ 4. Attributes, operations, and relationships among the analysis classes
- ☐ 5. Analysis classes, attributes, and relationship among classes

The correct answer is: Analysis classes, attributes, and user-interface

Question 8

Correct

Mark 1.00 out of 1.00

Given the following statements: 1) Identify the relevant roles that are to be played 2) Role-play scenarios of the use case by having the team members perform each one 3) Review the use case descriptions The best flow to conduct a role-playing exercise using CRC cards is ...

Select one:

- ☐ 1. 1) -> 2) -> 3)
- ☒ 2. 3) -> 1) -> 2) ✓
- ☐ 3. 2) -> 1) -> 3)
- ☐ 4. 1) -> 3) -> 2)
- ☐ 5. 2) -> 3) -> 1)

The correct answer is: 3) -> 1) -> 2)

Question 9

Correct

Mark 1.00 out of 1.00

Below are attributes in Building class which have Room as a subclass: (+) Name (+) Number (#) Person in Charge (-) Area Which statement(s) is(are) false?

Select one:

- ☒ 1. Name and Number could not be seen by any other classes ✓
- ☐ 2. Name and Number could be seen by Room
- ☐ 3. Person in Charge could be seen by Room
- ☐ 4. Area could not be seen by Room
- ☐ 5. A, B, C, D are false

The correct answer is: Name and Number could not be seen by any other classes

Question 10

Incorrect

Mark 0.00 out of 1.00

Given the below statements: 1) Represents the action or functions that related class can perform 2) Represents a-kind-of relationship between multiple classes 3) Can be derived from attributes in a class 4) Includes parentheses that may contain parameters or information needed to perform the operation Which statements are false about an operation in class diagram?

Select one:

- ☐ 1. 1), 2), 3)
- ☐ 2. 1), 3)
- ☐ 3. 2), 4)
- ☒ 4. 4) ✖
- ☐ 5. All statements are wrong

The correct answer is: 1), 2), 3)

Question 11

Correct

Mark 1.00 out of 1.00

Association relationships are bidirectional. The flip side of association is decomposition. The analyst can use decomposition to uncover parts of a class that should be modeled separately.

Select one:

- ☐ True
- ☒ False ✔

The correct answer is 'False'.

Question 12

Correct

Mark 1.00 out of 1.00

The back of a CRC card contains the attributes and relationships of the class. The attributes of the class represent the doing responsibilities that each instance of the class has to meet. The relationship present relationship with other classes.

Select one:

- ☐ True
- ☒ False ✓

The correct answer is 'False'.

Question 13

Correct

Mark 1.00 out of 1.00

Name, NPM, Faculty, Birthdate, and GPA can be considered attributes of a Student of Universitas Indonesia.

Select one:

- ☒ True ✓
- ☐ False

The correct answer is 'True'.

Question 14

Correct

Mark 1.00 out of 1.00

Which one is the wrong application of generalization?

Select one:

- ☐ 1. Teaching Assistant is superclass of Student
- ☐ 2. Executive Management inherits all attributes from CEO and CTO
- ☐ 3. Employee is superclass of HR Manager and HR manager is subclass of HR staff
- ☐ 4. Full-time Employee and Part-time Employee is generalization of Employee
- ☒ 5. A, B, C, D are wrong ✓

The correct answer is: A, B, C, D are wrong

Question 15

Incorrect

Mark 0.00 out of 1.00

Given the following statements: 1) Passenger book a flight in online booking system 2) Student borrow a book in library system 3) Student enroll to a course in e-learning 4) Instructor instruct students in an academy Which of the statements are true about association?

Select one:

- ☐ 1. 1), 2), 4)
- ☐ 2. 1), 2), 3)
- ☐ 3. 1), 3)
- ☒ 4. 2), 4) ✖
- ☐ 5. All statements are true

The correct answer is: All statements are true

Question 16

Correct

Mark 1.00 out of 1.00

The two general kinds of classes are concrete and abstract.

Select one:

- ☒ True ✔
- ☐ False

The correct answer is 'True'.

Question 17

Correct

Mark 1.00 out of 1.00

It is possible to show the visibility of the attribute on the diagram. Visibility relates to the level of information hiding to be enforced for the attribute. The visibility of an attribute can be public (-), protected (+), or private (#).

Select one:

- ☐ True
- ☒ False ✓

The correct answer is 'False'.

Question 18

Correct

Mark 1.00 out of 1.00

An attribute of an analysis class represents a piece of information that is relevant to the class description in the application domain of the problem being explored.

Select one:

- ☒ True ✓
- ☐ False

The correct answer is 'True'.

Question 19

Correct

Mark 1.00 out of 1.00

A is simply a useful group of collaborating classes that provide a solution to a commonly occurring problem.

Select one:

- ☐ 1. Textual analysis
- ☐ 2. Brainstorming
- ☐ 3. Common object list
- ☐ 4. Behavioral analysis
- ☒ 5. Pattern ✓

The correct answer is: Pattern

Question 20

Correct

Mark 1.00 out of 1.00

Aggregation is used to portray logical a-part-of relationships and is depicted on a UML class diagram by a hollow or white diamond.

Select one:

- ☒ True ✓
- ☐ False

The correct answer is 'True'.

Question 21

Correct

Mark 1.00 out of 1.00

Several categories of objects have been found in creating the list, such as physical or tangible things, incidents, roles, and interactions. These categorization aim to help the analyst in identifying the objects using common object lists approach.

Select one:

- ☒ True ✓
- ☐ False

The correct answer is 'True'.

Question 22

Correct

Mark 1.00 out of 1.00

An object diagram is essentially an instantiation of all or part of a class diagram. Instantiation means to create an instance of the class with a set of appropriate attribute values.

Select one:

- ☒ True ✓
- ☐ False

The correct answer is 'True'.

Question 23

Correct

Mark 1.00 out of 1.00

There are basic categories of relationships based on data abstraction mechanisms, which are:

Select one:

- ☐ 1. Inheritance, composition, and aggregation
- ☐ 2. Generalization, specialization, and inheritance
- ☒ 3. Generalization, aggregation, and association ✓
- ☐ 4. Abstraction, aggregation, and operations
- ☐ 5. Abstraction, specialization, and association

The correct answer is: Generalization, aggregation, and association

Question 24

Incorrect

Mark 0.00 out of 1.00

What is not true about brainstorming technique?

Select one:

- ☐ 1. It is process that a set of individuals sitting around a table suggest potential classes that could be useful for the problem under consideration
- ☐ 2. It has been used successfully in identifying candidate classes
- ☐ 3. It examines the text in the use case descriptions to identify potential objects, attributes, operations, and relationships
- ☐ 4. It is kicked off by a facilitator who asks the set of individuals to address a specific question or statement that frames the session
- ☒ 5. It does not use the functional models developed earlier ✗

The correct answer is: It examines the text in the use case descriptions to identify potential objects, attributes, operations, and relationships

Question 25

Correct

Mark 1.00 out of 1.00

We know that there are different responsibilities between a captain and co-pilot, thus we could apply association to it as the following class diagram.

Select one:

- ☐ True
- ☒ False ✓

The correct answer is 'False'.

Question 26

Correct

Mark 1.00 out of 1.00

A conceptual model shows the logical organization of the objects by indicating how the objects are stored, created, or manipulated.

Select one:

- ☐ True
- ☒ False ✓

The correct answer is 'False'.

Question 27

Correct

Mark 1.00 out of 1.00

From the image below, we know that there could be some cars without a driver.

Select one:

- ☒ True ✓
- ☐ False

The correct answer is 'True'.

Question 28

Correct

Mark 1.00 out of 1.00

A structural model is a formal way of representing the objects that are used and created by a business system. It illustrated people, places, or things about which process is captured and how they are related to one another.

Select one:

- ☐ True
- ☒ False ✓

The correct answer is 'False'.

Question 29

Correct

Mark 1.00 out of 1.00

Structural models are typically depicted using ...

Select one:

- ☒ 1. CRC cards, class diagram, object diagram ✓
- ☐ 2. CRC cards, class diagram, database diagram
- ☐ 3. Use case diagram, database diagram, object diagram
- ☐ 4. Use case diagram, class diagram, database diagram
- ☐ 5. Use case diagram, class diagram, object diagram

The correct answer is: CRC cards, class diagram, object diagram

Question 30

Correct

Mark 1.00 out of 1.00

Which statements is true about a class?

Select one:

- ☐ 1. A class is a structure that contain equal data in their attributes
- ☐ 2. A class is a structure that contain equal data in their attributes
- ☐ 3. A class is an object that represents non-functional requirements
- ☒ 4. A class is a general template to create specific instances, or objects, in the problem domain ✓
- ☐ 5. Option A, B, C, and D are true

The correct answer is: A class is a general template to create specific instances, or objects, in the problem domain

Question 31

Correct

Mark 1.00 out of 1.00

..... are events that occur in the business domain, such as meetings, flights, performances, or accidents. Typically, are transactions that take place in the business domain, such as sales transactions.

Select one:

- ☐ 1. Interactions, Incidents
- ☐ 2. Roles, Tangible Things
- ☐ 3. Incident, Roles
- ☒ 4. Incident, Interactions ✓
- ☐ 5. Tangible things, Incidents

The correct answer is: Incident, Interactions

Question 32

Correct

Mark 1.00 out of 1.00

The set of CRC cards contains all the information necessary to build a logical structural model of the problem being investigated.

Select one:

- ☒ True ✓
- ☐ False

The correct answer is 'True'.

Question 33

Correct

Mark 1.00 out of 1.00

The four most common approaches to identify a set of candidate objects for the structural model are ...

Select one:

- ☒ 1. Textual analysis, brainstorming, patterns, and common object lists ✓
- ☐ 2. Textual analysis, screening, behavior analysis, and patterns
- ☐ 3. Brainstorming, screening, common object lists, and patterns
- ☐ 4. Brainstorming, textual analysis, behavior analysis, and patterns
- ☐ 5. Textual analysis, brainstorming, screening, and common object lists

The correct answer is: Textual analysis, brainstorming, patterns, and common object lists

Question 34

Correct

Mark 1.00 out of 1.00

Doing responsibilities are those things that an instance of a class must be capable of knowing,. Meanwhile, knowing responsibilities are those things that an instance of a class must be capable of doing.

Select one:

- ☐ True
- ☒ False ✓

The correct answer is 'False'.

Question 35

Correct

Mark 1.00 out of 1.00

A class diagram is a dynamic model that shows the classes and the relationships among classes that remain constant in the system over time.

Select one:

- ☐ True
- ☒ False ✓

The correct answer is 'False'.