Început pe	miercuri, 4 februarie 2026, 15:09
Status	Finalizate
Completat în	miercuri, 4 februarie 2026, 15:17
Timp de parcurgere test	8 min 5 secunde
Notă obținută	**6,80** din 8,00 (**85**%)

1 întrebare

Complet

Marcat 0,20 din 0,20

Which statement best describes the relationship between sequence diagrams and communication diagrams in UML?
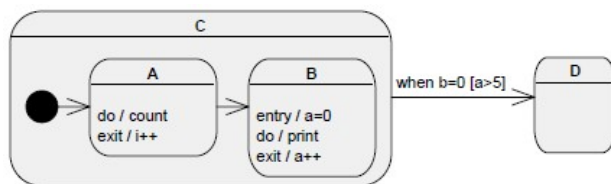
Selectați răspunsul corect:

- ○ a. Sequence diagrams focus on object relationships, while collaboration diagrams focus on time

- ○ b. Collaboration diagrams replace sequence diagrams in the design phase

- ◉ c. Both diagrams model object interactions, but emphasize different aspects

- ○ d. Collaboration diagrams are used only for database design

2 întrebare

Complet

Marcat 0,20 din 0,20

You are given the following state machine diagram. When does a transition to state D occur?

Selectați răspunsul corect:

- ○ a. As soon as the event a>5 occurs and the guard is evaluated to true

- ○ b. As soon as all effects within state B are finished

- ○ c. As soon as all effects within states A and B are finished

- ◉ d. As soon as b=0 and a exceeds the value 5.

3 întrebare

Complet

Marcat 0,20 din 0,20

A shared aggregation between two classes (whole and parts) will be implemented:

Selectați răspunsul corect:

- ○ a.   By reference, adding a reference attribute to the Part class
- ◉ b.   By reference, adding a reference attribute to the Whole class
- ○ c.   By value, adding an attribute to the Whole class
- ○ d.   By value, adding an attribute to the Part class

4 întrebare

Complet

Marcat 0,20 din 0,20

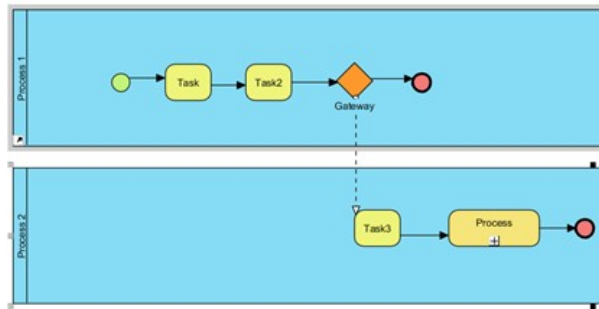Components can be accessed:

Selectați răspunsul corect:

- ○ a.   through executables, linkable libraries, Web services, and mobile services.
- ○ b.   by reusing classes
- ◉ c.   through their interfaces
- ○ d.   directly

5 întrebare

Complet

Marcat 0,20 din 0,20

Which element is missing from the following collaboration diagram;

Selectați răspunsul corect:

- ⦿ a. A start event;
- ○ b. A message flow;
- ○ c. A data flow;
- ○ d. An intermediate event;

6 întrebare

Complet

Marcat 0,00 din 0,20

Which architectural style is most directly supported by using UML package diagrams?

Selectați răspunsul corect:

- ○ a. Layered Architecture
- ○ b. Pipes and Filters
- ⦿ c. Client–Server Architecture
- ○ d. Event-Driven Architecture

7 întrebare

Complet

Marcat 0,20 din 0,20

What is the primary purpose of the MVC (Model-View-Controller) architecture?
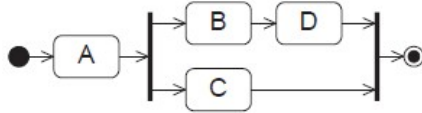
Selectați răspunsul corect:

- ○ a. To tightly couple the user interface and business logic for faster execution
- ⦿ b. To separate concerns by dividing an application into three interconnected components: Model, View, and Controll
- ○ c. To eliminate the need for frontend development
- ○ d. To ensure that all application logic is written in a single module

8 întrebare

Complet

Marcat 0,20 din 0,20

You are given the following activity diagram. Which of the following action sequences are possible during one execution of the activity diagram?

i. A → B → C → D

ii. A → B → D → C

iii. A → C → B → D

iv. A → B → D

v. A → C

Selectați răspunsul corect:

- ⦿ a. i+ii+iii
- ○ b. i+ii+iv
- ○ c. i+iv+v
- ○ d. i+ii

9 întrebare

Complet

Marcat 0,20 din 0,20

What is the primary advantage of using a layered architecture in system design?

Selectați răspunsul corect:

- ○ a. It allows for direct communication between all components
- ○ b. It eliminates the need for a database
- ⦿ c. It simplifies debugging by isolating issues within specific layers
- ○ d. It ensures that all components are tightly coupled

10 întrebare

Complet

Marcat 0,00 din 0,20

Deployment diagrams are

Selectați răspunsul corect:

- ○ a.   node-level diagrams
- ○ b.   class level diagrams
- ○ c.   instance level diagrams
- ◉ d.   component level diagrams

11 întrebare

Complet

Marcat 0,20 din 0,20

What is the primary goal of a CI/CD pipeline?

Selectați răspunsul corect:

- ○ a.   Eliminate manual testing entirely
- ◉ b.   Automate build, testing, and software delivery
- ○ c.   Reduce functional requirements
- ○ d.   Increase team size

12 întrebare

Complet

Marcat 0,20 din 0,20

Designing interfaces with other systems involves:

Selectați răspunsul corect:

- ○ a.   Designing the model of collaboration between processes from different systems;
- ◉ b.   Designing how to connect and interact with other systems, whether internal or external;
- ○ c.   Designing dialogue with system users;
- ○ d.   Designing graphic interface layouts;

13 întrebare

Complet

Marcat 0,20 din 0,20

Which architectural style enables loose coupling between components by using event-based communication, without the sender knowing the receiver?

Selectați răspunsul corect:

- ○ a. Client–Server
- ○ b. Model–View–Controller
- ⦿ c. Event-Driven Architecture
- ○ d. Layered Architecture

14 întrebare

Complet

Marcat 0,00 din 0,20

In Scrum, the role responsible for maximizing product value is:

Selectați răspunsul corect:

- ⦿ a. Project Manager
- ○ b. Product Owner
- ○ c. Development Team
- ○ d. Scrum Master

15 întrebare

Complet

Marcat 0,20 din 0,20

Which testing technique involves verifying software behavior without accessing the source code?

Selectați răspunsul corect:

- ○ a. Profiling testing
- ○ b. Static testing
- ○ c. White box testing
- ⦿ d. Black box testing

16 întrebare

Complet

Marcat 0,20 din 0,20

What is the major advantage of Continuous monitoring in DevOps?

Selectați răspunsul corect:

- ○ a. It removes the necessity for technical support teams
- ○ b. It slows down the deployment of new features
- ◉ c. It allows teams to detect and resolve performance issues quickly
- ○ d. It completely eliminates the need for application testing

17 întrebare

Complet

Marcat 0,20 din 0,20

A NoSQL database is primarily used for:

Selectați răspunsul corect:

- ○ a. UML diagrams
- ◉ b. Large-scale unstructured or semi-structured data
- ○ c. Strictly structured data
- ○ d. Classical banking transactions only

18 întrebare

Complet

Marcat 0,20 din 0,20

Which statements are the correct about the life cycle of a computer system...:

1. it is a template for ordering the activities of the computer system;

2. it is included in the development cycle of the computer system;

3. it can be organized in 5 stages (identification of requirements, analysis, design, implementation, maintenance);

4. it ends with the decision to abandon the system and replace it with a new system.

Select the correct combination:

Selectați răspunsul corect:

- ○ a. 3+4;
- ◉ b. 1+3+4
- ○ c. 1+2
- ○ d. 2+3+4

19 întrebare

Complet

Marcat 0,20 din 0,20

The <<boundary>> classes have the role of:

Selectați răspunsul corect:

- ◉ a.   Ensuring communication with actors or other computer systems.

- ○ b.   Identifying classes of the problem domain;

- ○ c.   Mediating between boundary classes and entity classes;

- ○ d.   Creating objects that must also exist after the system is turned off;

20 întrebare

Complet

Marcat 0,20 din 0,20

In a decision node of an activity diagram:

Selectați răspunsul corect:

- ○ a.   several flows enter and one come out;

- ○ b.   you can simulate the "DO-UNTIL" control structure from programming;

- ○ c.   more flow enter and more than one come out;

- ◉ d.   output flows have mutually exclusive conditions;

21 întrebare

Complet

Marcat 0,20 din 0,20

Requirements that describe what the system should do are called:

Selectați răspunsul corect:

- ○ a.   Architecture requirements

- ○ b.   Non-functional requirements

- ◉ c.   Functional requirements

- ○ d.   Implementation requirements

22 întrebare

Complet

Marcat 0,20 din 0,20

What type of BPMN event is appropriate for modeling "Approved expense budget"? Choose one of the following:

Selectați răspunsul corect:

- ○ a. conditional
- ◉ b. signal
- ○ c. receive message
- ○ d. timer

23 întrebare

Complet

Marcat 0,20 din 0,20

In order to accelerate the analysis, design and implementation phases, in methodologies based on rapid development, it is recommended to use:

A. CASE tools;

B. hierarchical databases;

C. code generators;

D. visual programming languages.

Selectați răspunsul corect:

- ○ a. (A+C);
- ◉ b. (A+C+D)
- ○ c. (A+B+C)
- ○ d. (B+C+D)

24 întrebare

Complet

Marcat 0,00 din 0,20

The symbol that represents the initial state (start) in a UML state machine diagram is:

Selectați răspunsul corect:

- ○ a. A rounded rectangle
- ◉ b. A double circle
- ○ c. A diamond
- ○ d. A filled black circle

25 întrebare

Complet

Marcat 0,20 din 0,20

Which type of software maintenance involves modifying the system to adapt it to a new technological environment (e.g., new operating system or hardware platform)?

Selectați răspunsul corect:

- ◉ a. Adaptive maintenance
- ◯ b. Corrective maintenance
- ◯ c. Preventive maintenance
- ◯ d. Perfective maintenance

26 întrebare

Complet

Marcat 1,00 din 1,00

If you want to get 1 point by default, choose YES!

Selectați răspunsul corect:

- ◯ a. NO
- ◉ b. YES

27 întrebare

Complet

Marcat 0,20 din 0,20

What defines the DevOps process loop?

Selectați răspunsul corect:

- ◯ a. Code, test, deploy, operate, monitor, plan;
- ◯ b. Build, test, release, monitor;
- ◉ c. Plan, code, build, test, deploy, operate, monitor, plan;
- ◯ d. Plan, build, release, deploy, monitor;

28 întrebare

Complet

Marcat 0,20 din 0,20

What does involve preventive maintenance?

Selectați răspunsul corect:

- ○ a.   making changes to the information system to enhance its functionality or to adapt it to a new environment

- ○ b.   making changes within the system in order to repair and remove defects or errors in design, programming, or implementation

- ◉ c.   changes made to the system to reduce or eliminate the risk of system failure

- ○ d.   implementing new functional or non-functional system requirements

29 întrebare

Complet

Marcat 0,20 din 0,20

Within sequence diagrams …

Selectați răspunsul corect:

- ◉ a.   …you can refer to other sequence diagrams
- ○ b.   …time is no separate dimension
- ○ c.   …the behavior of one object is modeled
- ○ d.   …the chronological process of one object is modeled

30 întrebare

Complet

Marcat 0,20 din 0,20

What type of UML diagram can be used for user interfaces design?

Selectați răspunsul corect:

- ○ a.   use case diagrams
- ◉ b.   navigation charts
- ○ c.   state-machine diagrams
- ○ d.   activity diagrams

31 întrebare

Complet

Marcat 0,00 din 0,20

Which of the following is a key characteristic of Service-Oriented Architecture (SOA)?

Selectați răspunsul corect:

- ○ a.   Monolithic deployment of applications
- ○ b.   Loose coupling and service reuse
- ◉ c.   Tight coupling between services
- ○ d.   Direct database access between services

32 întrebare

Complet

Marcat 0,20 din 0,20

The design of the system environment consists of:
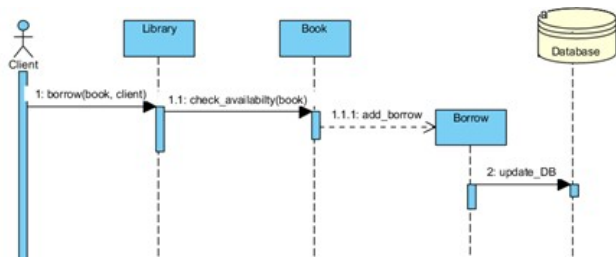
Selectați răspunsul corect:

- ◉ a.   Identification of all the technologies necessary to support the implementation of the IT system;

- ○ b.   Establishing the technical level of the equipment with the necessary computer technology;

- ○ c.   Designing the configuration of the processing elements during execution.

- ○ d.   Establishing the architecture of the information system;

33 întrebare

Complet

Marcat 0,00 din 0,20

Which of the following are inappropriately used in this sequence diagram?

Selectați răspunsul corect:

- ○ a. the data storage symbol;
- ○ b. the *add_borrow* message;
- ◉ c. the *Borrow* object;
- ○ d. the Client actor;

34 întrebare

Complet

Marcat 0,20 din 0,20

The deployment diagram shows:

Selectați răspunsul corect:

- ○ a. Interactions that take place between various objects of a system, chronologically ordered;
- ◉ b. Configuration of physical processing nodes during execution;
- ○ c. How a system is divided into logical groups and the links between them;
- ○ d. Existing dependencies between various software components that compose an information system;

35 întrebare

Complet

Marcat 0,20 din 0,20

In BPMN, a message flow can be used to:

Selectați răspunsul corect:

- ○ a. connect two tasks in the same pool

- ○ b. transfer data between tasks

- ◉ c. show message exchange between two participants

- ○ d. represent branching and merging

36 întrebare

Complet

Marcat 0,20 din 0,20

The design of computer system security and controls can be carried out at the level of:

Selectați răspunsul corect:

- ◉ a. Application, database, user interface;

- ○ b. Application; database; network;

- ○ c.   Database, user interface; cloud;

- ○ d. Company, application and database;