

1. A feasibility study

A Feasibility Study.

Select one or more:

- a. Does not involve all the stake holders.
- b. Looks at alternative solutions.
- c. Is generally carried out after the software requirements specification.
- d. Covers cost to benefit analysis.

2. Design models have the following characteristics

Design Models have the following characteristics

Select one or more:

- a. Design models cannot show the behavior of a system
- b. Design models show the structure of a system
- c. Design Models use UML to achieve the objectives
- d. Design models are based on the system implementation

3. Which one of the following is not a step of requirement engineering ?

Which one of the following is not a step of requirement engineering?

Select one:

- a. Gathering
- b. Feasibility Study
- c. Documentation
- d. Analysis

4. With reference to figure below which of the following statement are true ?

With reference to Figure below, which of the following statements are true?

The diagram shows a system boundary containing five use cases: UC1, UC2, UC3, UC4, and UC5. UC1 and UC2 have dashed arrows pointing to UC4 labeled "includes". UC4 has dashed arrows pointing to UC3 and UC5 labeled "includes". Outside the system boundary, three actors are shown: X1, X2, and X3. Solid lines connect X1 to UC3 and UC4. Solid lines connect X2 to UC4 and UC5. Solid lines connect X3 to UC4.

Select one or more:

- a. X2 and X3 are specializations of X1
- b. X3 cannot interact with the system using UC4
- c. X2 cannot interact with the system using UC3
- d. All of the mentioned
- e. X3 can interact with the system using UC4

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5. Which of the following the development team should not do during first sprint ?

Which of the following the Development Team should **not do** during the first Sprint?

Select one or more:

- a. Develop a plan for the rest of the project N
- b. Deliver an increment of potentially shippable functionality. Y
- c. Develop and deliver at least one piece of functionality. X
- d. Design the complete architecture and infrastructure for the whole project. N

6. Which statements are true for use case diagram ?

Which statements are **true** for Use Case Diagram?

Select one or more:

- a. Use case modelling supports requirements elicitation and specification.
- b. Use cases act as a means of communicating with stakeholders about what the system does.
- c. Use Case Model captures the functional and non-functional requirements of a system.
- d. Use Case Model demonstrates the behaviour of the proposed system to the client.

7. An inconsistent requirement

An **Inconsistent** requirement

Select one or more:

- a. always relates to functional requirements.
- b. should be made a consistent requirement.
- c. is a non-functional requirement.
- d. occurs when the customer cannot decide what problem they really want solved.

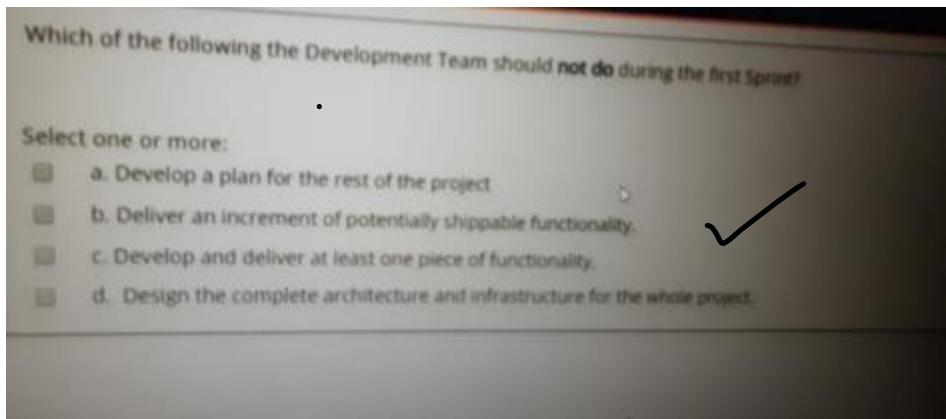
8. which of the following process models goal is to identify and focus ...

Which of the following process models' goal is to **Identify risks** and focus on it early?

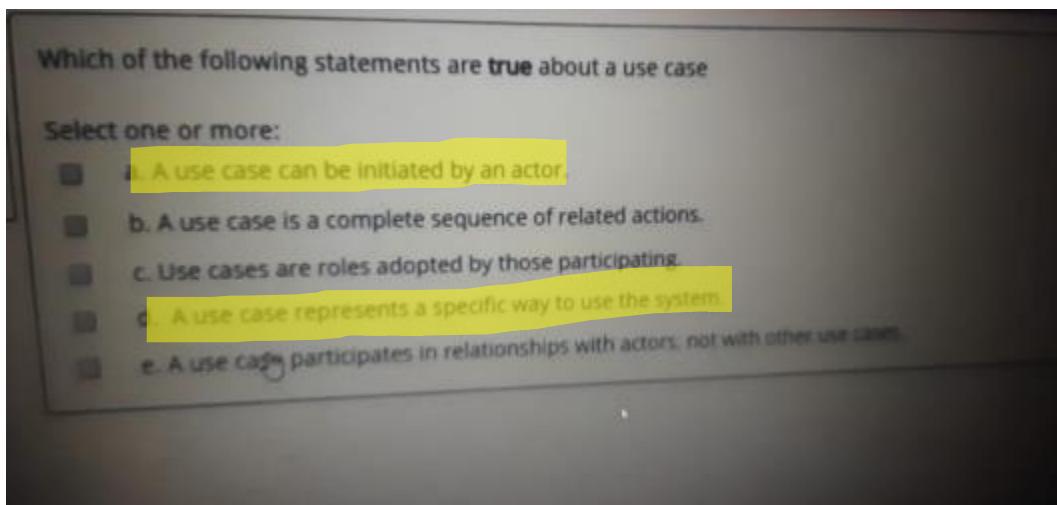
Select one:

- a. Linear model
- b. V model
- c. Spiral
- d. Incremental

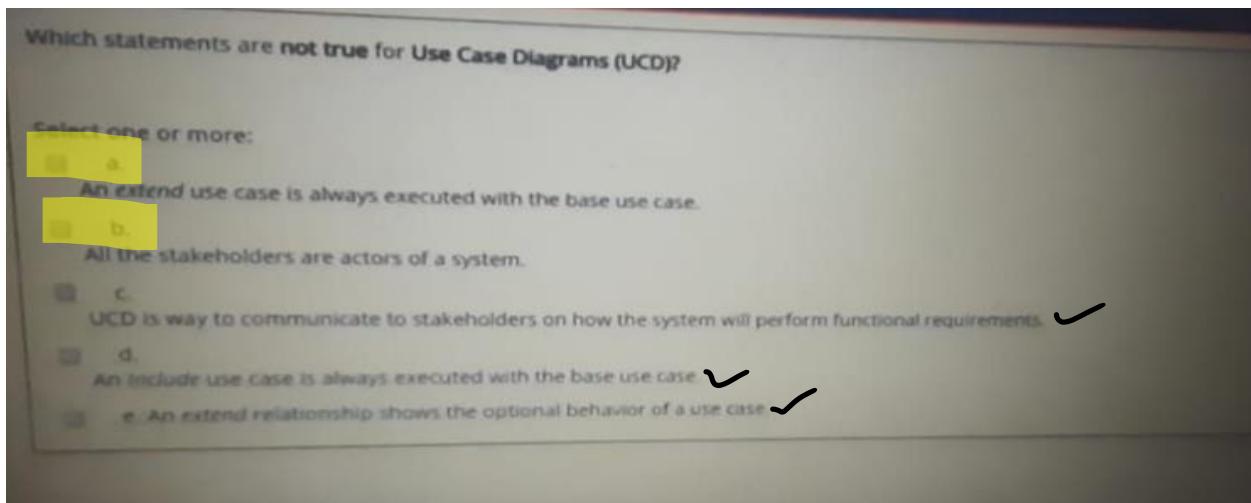
8. Which of the following development team should not do during the



9. Which of the following statements are true about a use case



10. Which statements are not true for use case diagram ?



11. SRS

SRS \_\_\_\_\_

Select one or more:

- a. Should describe any design or implementation details
- b. Is recognized as white box specification
- c. Should correctly define all of the software requirements
- d. Should impose additional constraints on the software
- e. Should describe non-functional requirements

12. Which statements are true regarding prototyping

Which statements are true regarding Prototyping

Select one or more:

- a. Prototype can replace the functional requirements of SRS
- b. Prototype should be thrown away
- c. Prototype can be patched for release phase
- d. None of the mentioned.
- e. Building prototype replaces requirements phase

13. Which of the following is not true about the incremental model ?

Which of the following is **not true** about the **incremental model** ?

Select one:

- a. The initial budget is low
- b. Incremental model is suitable for large projects
- c. Clients can get familiarized with the system gradually when the increments are being delivered
- d. Clients could pay for the software in increments
- e. Initial modules of the product may have low performance, low reliability and sometimes provide incomplete features.

14. Which of the below statements are TRUE on ethnography ?

Which of the below statements are **TRUE** on Ethnography?

Select one or more:

- a. Ethnography cannot be used in all the situations.
- b. Ethnography is better than interviews.
- c. Ethnography is used for requirement specification.
- d. Ethnography is used to discover requirements.
- e. Ethnography takes a longer time.

15. Consider a system where a heat sensor detects an instruction and alerts the security company .

Consider a system where a heat sensor detects an intrusion and alerts the security company. What kind of a requirement is this?

Select one:

- a. Functional
- b. Known Requirement
- c. Non-Functional
- d. Constraint

16. System modeling space may include ?

System modeling space may include;

Select one or more:

- a. User stories
- b. Activity diagram
- c. None of the mentioned
- d. CRC cards
- e. Use case diagram

17. Which of the following statements are TRUE regarding the diagram given in figure 3 ?

Which of the following statements are TRUE regarding the diagram given in figure 3?

Select one or more:

- a. When UC1 is triggered, UC4 will also be triggered
- b. Both a1 and a2 associate with UC1
- c. When UC1 is triggered, UC3 might not be triggered
- d. When UC1 is triggered UC2 is also triggered.

18. Which statements are not true for use case diagrams

Which statements are **not** true for Use Case Diagrams (UCD)?

Select one or more:

a. An *extend* use case is always executed with the base use case.

b. All the stakeholders are actors of a system.

c. UCD is way to communicate to stakeholders on how the system will perform functional requirements.

d. An *include* use case is always executed with the base use case.

e. An *extend* relationship shows the optional behavior of a use case.

✓

19. Which of the following about the given diagram are true ?

Which of the following statements about the given diagram are true?

```
graph TD; ActorA((A)) --> UCY((Y)); ActorB((B)) --> UCU((Z)); UCY --- Boundary[Boundary]; UCU --- Boundary;
```

Select one or more:

a. A can ignore Use Case Y.

b. A and B inherit the behaviour of Y.

c. A or B can execute Use Case Z.

d. A and B are not associated with Use Case Y.

20. Which statements are true about the waterfall model ?

**Which statements are true about the Waterfall model?**

Select one or more:

- a. Risk of changing requirements is reduced.
- b. Has been in use for many years.
- c. Generates working software quickly and early during the software life cycle.
- d. Simple and easy to manage- each phase has specific deliverable.
- e. None of the mentioned

21. Who is responsible to accept the product increment?

**Who is responsible to accept the product increment?**

Select one:

- a. The Scrum Team
- b. The Scrum Master
- c. The Product Owner
- d. The Development Team

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22. When the phase of classical waterfall life cycle model s mapped to four main

When the phases of Classical Waterfall Life Cycle Model is mapped to four main Software Process activities.

Select one:

- a. Design phase is mapped to Software Specification.
- b. Integration is discussed under Software Validation.
- c. Unit testing falls under Software Testing.
- d. Requirement Gathering is discussed under Software Validation.
- e. Feasibility Study is categorized under Software Analysis.

23. When your customer want to develop a software system but doesn't know how to ...

When your customer wants to develop a software system, but doesn't know how to explain what the system should end up, it is best to apply

Select one:

- a. Classical life cycle model
- b. Incremental model
- c. Evolutionary model
- d. Prototyping model

24. Ethnography in requirement engineering refer to

Ethnography in Requirements Engineering refers to +

Select one:

- a. Interviewing customers
- b. Doing Feasibility Study
- c. None of the mentioned
- d. Implementation
- e. Observing end users at their work

25. Software consists of

Software Consists of

Select one:

- a. set of instructions + operating system
- b. Programs + documentation + operating procedure
- c. Set of programs
- d. Programs + hardware
- e. Programs + Operating Procedure

26. The entry criteria and exist criteria for requirements phase in waterfall model is

The **entry** criteria and **exit** criteria for Requirements phase in Waterfall model is,

Select one:

- a. Feasibility report, SRS
- b. SRS, Set of Unit tested Modules
- c. SRS, Design Documents
- d. Set of unit tested modules, SRS

27. Example of an Ambiguous requirement is

**Example of an Ambiguous requirement is**

Select one:

- a. User should have a login account with username and password.
- b. Library members can reserve books.
- c. The output of the program should be given within 20 seconds.
- d. The product should have a good user interface.
- e. The program should be developed using C#.



28. Which of the following is not true about software process models ?

Which of the following is **not true** about software process models?

Select one:

- a. Software process models always use a diagrammatic model. ✓
- b. Incremental model is an example for a software process model ✓
- c. None of the mentioned. ✗
- d. Software process models show the important activities carried out during software development ✓
- e. A quality software could be developed when software engineers involved in developing a software product follow a soft models they are most familiar with. ✓



29. On a use case diagram , the type of relationship that arises when

On a use case diagram, the type of relationship that arises when one use case calls another use case is an

Select one:

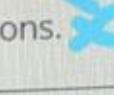
- a. abstract relationship 
- b. association relationship 
- c. include relationship 
- d. generalization relationship 
- e. working relationship 

SBM - Software Quality Assurance

30. Which of the following are included in software requirement specification ?

Which of the following are included in Software requirement specification?

Select one or more:

- a. Constraints on hardware and software to be used. 
- b. How each requirement is going to be implemented 
- c. Set of non-functional requirement. 
- d. Test cases 
- e. List of functions. 

31. Which of the following statements is not true ?

Which of the following statements is not true?

Select one:

- a. Requirements must be complete. X
- b. Requirements must be testable. X
- c. Requirements must be unambiguous. X
- d. Requirements must be concerned with system functionality only. X
- e. Requirements must be consistent X

32. Which model can be used for a small , well defined software project of 2<sup>nd</sup> year students ?

Which model can be used for a small, well-defined software project of 2<sup>nd</sup> year students?

Select one:

- a. Waterfall model X
- b. Prototyping model X
- c. V model X
- d. Spiral model X
- e. Incremental model X

33. Which one of the following is functional requirement ?

Which one of the following is a functional requirement?

Select one:

- a. Portability
- b. Security
- c. Maintainability
- d. Robustness
- e. None of the mentioned

34. The features of incremental model are

The features of Incremental Model are \_\_\_\_\_

Select one or more:

- a. Requirements are prioritized
- b. Creates versions of the system
- c. Users have to wait a long time to get the working product
- d. No need for prioritized requirements

35. Use case scenario contents must include

Use Case scenario contents must include

1. Use case ID
2. Goal in context
3. Main Success Scenario steps

Select one:

- a. 1 and 3
- b. 1 only
- c. 1 and 2
- d. 1, 2 and 3
- e. 2 and 3



36. Selection of particular life cycle model is not based on

Selection of particular life cycle model is not based on

Select one:

- a. Technical knowledge of development team
- b. Project type and associated risk
- c. Requirements
- d. None of the mentioned
- e. Testing methods

37. Internet banking system must allow customers to transfer funds ...

"Internet banking system must allow customers to transfer funds." Which of the following types of requirement is represented here?

Select one:

- a. Constraint, Functional requirement.
- b. Precise, Non-functional requirement.
- c. Precise, Functional requirement.
- d. Imprecise, Non-functional requirement.
- e. Imprecise, Functional requirement.

38. A company needs an inventory

A company needs an inventory control system to maintain its inventory. The company could either develop a new software in-house or purchase an already developed software. During which phase(s) of the classical waterfall model can the company management take the decision on whether it is best to develop the software in-house or to purchase existing software?

Select one:

- a. Implementation
- b. Design
- c. Feasibility study
- d. Testing
- e. Requirement

39. The system specification describes the

The system specification describes the

Select one:

- a. Software design
- b. functions, quality attributes and constraints of a system
- c. time required for system simulation
- d. implementation of system
- e. software architecture

40. Which statements below are true about system requirements ?

Which statements below are true about System Requirements?

Select one or more:

- a. Requirements tell what customers want from the system.
- b. Requirements tell how customers want the system to be implemented X
- c. Requirements should not gather from all stakeholders.
- d. Requirements are written in a structured way X
- e.

Requirements should be gathered from all stakeholders.

41. For a well understood data processing application it is best to use ?

For a well understood data processing application it is best to use,

Select one:

- a. The spiral model
- b. V model
- c. The prototyping model
- d. The incremental model
- e. The waterfall model

42. Which of the following is done during the discoverrequirements?

Which of the following is done during the requirement discovery step?

Select one:

- a. Validate and verify the client requirements
- b. Document the client requirements
- c. Obtain clients approval for the SRS
- d. Identify the constraints of the system
- e. Interview the clients

43. When choosing the best SDLC model for

When choosing the best **SDLC model** for a project which of the following should be considered?

Select one or more:

- a. Project Name
- b. Project Duration
- c. Type of users
- d. None of the mentioned.
- e. Experience of the development team

44. Which of the following is an ambiguous

Which of the following is an **ambiguous** requirement?

Select one:

- a. If the user entered a wrong password do not show the welcome page.
- b. Make the login page more "User-friendly".
- c. Library member can reserve books
- d. When the user forgets his password show the "password forgotten?" link.
- e. It should take maximum 10 seconds to load the login page

45. which of the following statements are ambiguous ?

Which of the following statements are **ambiguous**?

Select one or more:

- a. The system must respond fast.
- b. The software must not require more than 64MB of memory.
- c. The library system must have search book function.
- d. The system must be user friendly to attract more customers.
- e. The library system must have reserve book function..

46."internet banking system must be easy to use "

7

Sri Lanka Institute of Information Technology

"Internet banking system must be easy to use for online users." Which of the following type of error is present in the above statement?

Select one:

- a. Inconsistency
- b. Availability
- c. None of the mentioned
- d. Ambiguity
- e. Incompleteness

47. which of the following statement true ?

Which of the following statements are true?

Select one or more:

- a. V-model is best when requirements are not well-designed
- b. V-model is also called validation and verification model
- c. V-model highly focuses on risk mitigation
- d. V-model finds errors easily
- e. V-model is more costly

48. validation phase of V-model include ?

Validation phase of *V-model* includes,

Select one:

- a. Unit Testing.
- b. System Testing.
- c. Integration Testing.
- d. All of the mentioned.
- e. Beta Testing

49. which of the following are not true ?

Which of the following are **not true?**



Select one or more:

- a. QA Engineers should also be involved in Requirements Engineering
- b. Requirements Engineering covers the entire development and testing phases
- c. Actors in Use case Diagrams are only involved in Requirements Engineering
- d. None of the mentioned
- e. Requirements Engineering involves writing test cases

50. which of the following are TRUE about critical system

Which of the following are **TRUE** about **Critical Systems?**

Select one or more:

- a. People are dependent on Critical Systems.
- b. All software systems are Critical Systems.
- c. An inventory handling system is an example of a critical system.
- d. Credit Card payment system in a bank is an example of a Critical System.
- e. Mission Critical Systems are systems used in war.

51. which of the following are true about software ?

Which of the following are **true** about software?

Select one or more:

- a. Visual studio is used to develop, debug and test software.
- b. Oracle is a database management system.
- c. Visual Studio is not a software, it is a tool.
- d. Android is not a software.
- e. Android is an operating system.

52. which of the following statements given below .....

Which of the statements given below are **true** about a software **prototype**?

- a) Prototype is a working model of part or all of a product
- b) Prototypes can be used as the final product
- c) It is a toy system used to clear out the software system requirements

Select one:

- a. B and C only
- b. B only
- c. A only
- d. A and B only
- e. C only

53. which of the following statements is not true about spiral model ?

Which of the following statements Is **not true** about the **Spiral Model**?

Select one:

- a. It is best used for projects which need risk management.
- b. It may use prototyping.
- c. Phases of Spiral model are overlapped
- d. It has four quadrants which focus on specific tasks.
- e. None of the mentioned

54. Main goals of prototyping are to

Main goals of **Prototyping** are to \_\_\_\_\_

Select one or more:

- a. Get the approval from the end user
- b. Understand the end user
- c. Design the system
- d. Manage the development team
- e. Clarify the programming language

55. which of the following is false about use case diagram ? (Top)

Which of the following is **false** about Use Case Diagrams?

Select one:

- a. Illustration of the activities that are performed by the users of the system.
- b. A formal way of representing how a business system interacts with its environment.
- c. Definition of the phases in the Unified Process.
- d. A sequence of actions a system performs that yields a valuable result for a particular actor.
- e. System, actors, use cases and relationships are the four basic components of use case diagram.

56. in terms of reducing errors at the end .....

In terms of reducing errors at the end, the most **important** phase of SDLC

Select one:

- a. Testing
- b. Maintenance
- c. Implementation
- d. Design
- e. Requirements

57. which of the following are true (TOP)

Which of the following are TRUE statement/s about Critical Systems?

Select one or more:

- a. If these systems fail to deliver their services as expected then no serious problems and no significant losses may result.
- b. There won't be any significant effect when a critical system fails.
- c. Customer accounting system in a bank is an example for a critical system.
- d. A system whose failure may result in an injury or loss of life.
- e. System whose failure may result in the failure of some goal-directed activity.

58. which of the following are false regarding a use case ?

Which of the following are false regarding a use case?

Select one or more:

- a. It should not describe in detail the quality of the user interface of the system
- b. It should have a name with a verb-noun phrase
- c. It should describe in detail the quality of the user interface of the system
- d. It shows a non-functional requirement in the system
- e. It appears as an ellipse in a use case diagram

59. which of the below statements are TRUE on

Which of the below statements are TRUE on Requirement Errors?

Select one or more:

- a. If Requirement Errors are not corrected, they will cost a lot.
- b. Unambiguous requirements are a type of requirement error.
- c. Requirement Errors should be corrected after specifying them.
- d. "System should be fast" is an ambiguous requirement.
- e. Requirement Errors should not be discussed with the stakeholders.

60. when the phase of classical waterfall

When the phases of Classical Waterfall Life Cycle Model is mapped to four main Software Process activities,

Select one:

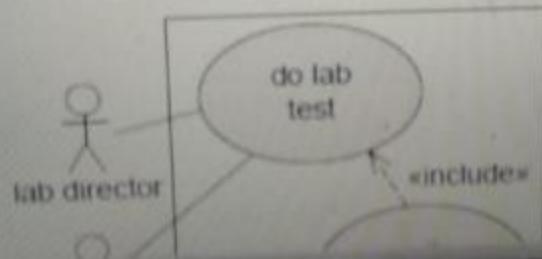
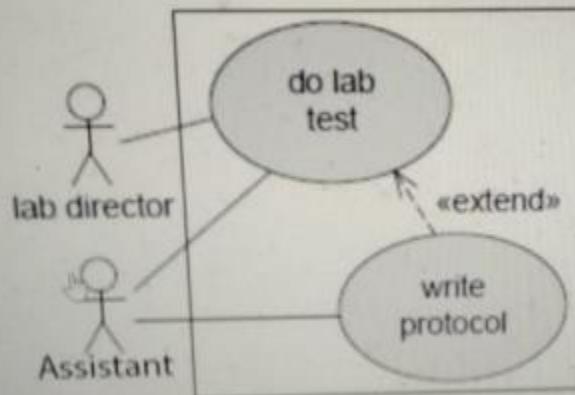
- a. Unit testing falls under Software Testing.
- b. Design phase is mapped to Software Specification.
- c. Integration is discussed under Software Validation.
- d. Requirement Gathering is discussed under Software Validation.
- e. Feasibility Study is categorized under Software Analysis.

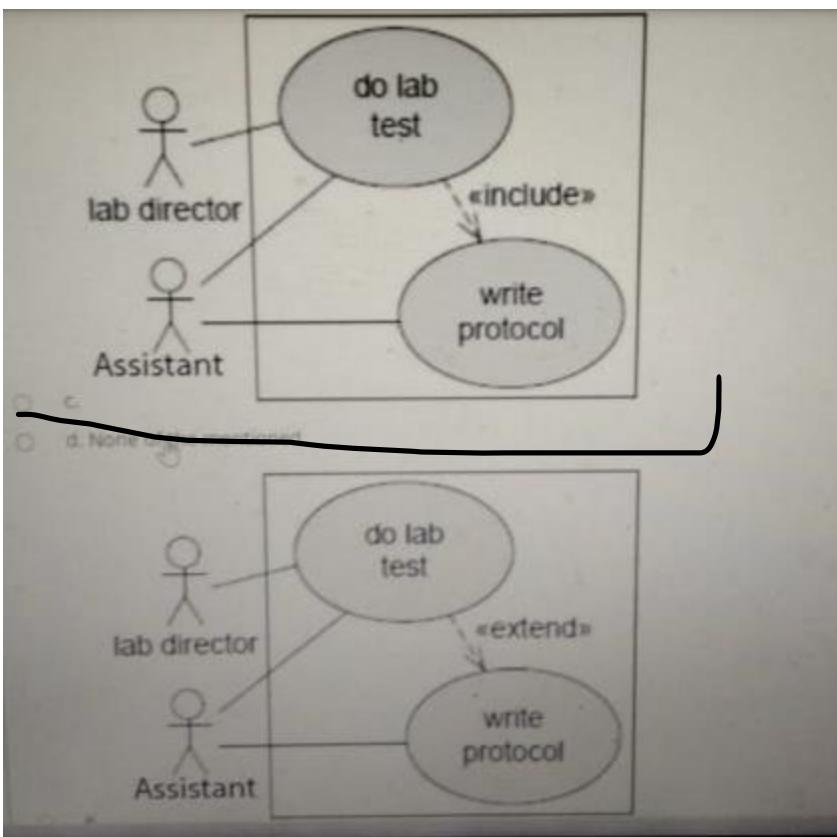
61. how do you model the

How do you model the following situation with a Use Case diagram?

The lab director does a lab test together with his assistant. In some occasions, the assistant has to write a protocol during the lab test.

Select one:





62. Which relationship specifies

Which relationship specifies an **optional** behaviour?

Select one:

- a. An association
- b. An inheritance
- c. A generalization
- d. An include
- e. An extend

63. on a use case diagram , the type

On a use case diagram, the type of relationship that arises when one use case calls another <sup>T</sup> use case is a(n):

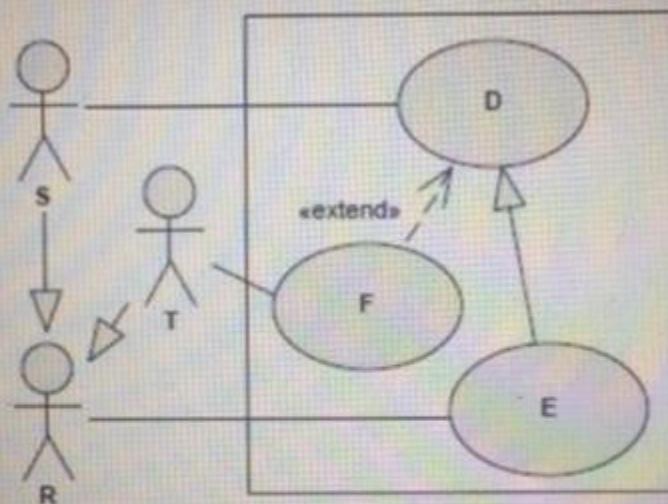
Select one:

- a. abstract relationship
- b. association relationship
- c. working relationship
- d. generalization relationship
- e. include relationship

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64. in the following use case diagram

In the following Use Case Diagram, which actors communicate with Use Case D?



Select one:

- a. T
- b. S
- c. R
- d. S and T
- e. S and R

S T R

