

# PRACTICE EXAM

DLBCSRE01 3022  
EXAMID: 1335865

## MASTERSOLUTION

### QUESTION 1 OF 20

Marked out of 3.00

Which of the following tasks is a responsibility of a requirements engineer?

Select one:

- ☐ Lead the change management process within the project.
- ☐ Moderate and mediate between stakeholders and project members.
- ☐ Mentor the project manager to complete the project within budget.
- ☐ Coach and lead developers within the scrum teams.

The correct answer is: Moderate and mediate between stakeholders and project members.

### QUESTION 2 OF 20

Marked out of 3.00

Which of the following is a type of written brainstorming?

Select one:

- ☐ Written brainstorming with user stories
- ☐ Design thinking
- ☐ Interview with questionnaire
- ☐ Apprenticing

The correct answer is: Written brainstorming with user stories

### QUESTION 3 OF 20

Marked out of 3.00

According to Kano model, a delight attribute ...

Select one:

- ☐ dissatisfies the user.
- ☐ is explicitly demanded.
- ☐ surprises the user.
- ☐ leads to failure.

The correct answer is: surprises the user.

## QUESTION 4 OF 20

Marked out of 3.00

In software development, the accuracy of cost and time estimates for fulfilling requirements depends on factors such as the precision of the requirements themselves and the project phase, which reflects the amount of available information.

Considering these factors, provide the correct estimated error margins for time or cost estimations at the three main stages:

Select one:

- ☐ - Pre-project: 40 - 80 %  
- Initiation stage: 60 - 70 %  
- Delivery stage: 40 - 50 %
- ☐ - Pre-project: 100 - 250 %  
- Initiation stage: 50 - 100 %  
- Delivery stage: 120 - 130 %
- ☐ - Pre-project: 50 - 100 %  
- Initiation stage: 20 - 40 %  
- Delivery stage: 10 - 20 %
- ☐ - Pre-project: 60 - 80 %  
- Initiation stage: 40 - 100 %  
- Delivery stage: 20 - 25 %

The correct answer is: - Pre-project: 50 - 100 %

- Initiation stage: 20 - 40 %
- Delivery stage: 10 - 20 %

## MASTERSOLUTION

### QUESTION 5 OF 20

Marked out of 3.00

What is one of the goals of the requirement reviewing process?

Select one:

- ☐ Resolve errors easier by finding them early in the process.
- ☐ Create a large amount of requirements.
- ☐ Ensure the requirements are 100% free of errors.
- ☐ Determine the four stakeholder archetypes.

The correct answer is: Resolve errors easier by finding them early in the process.

### QUESTION 6 OF 20

Marked out of 3.00

Which of the following is a document-centered technique?

Select one:

- ☐ Brainstorming
- ☐ Interview
- ☐ Perspective-based reading
- ☐ Apprenticing

The correct answer is: Perspective-based reading

## QUESTION 7 OF 20

Marked out of 3.00

What is true about lanes in BPMN?

Select one:

- ☐ A lane is executed in the process and is atomic.
- ☐ A lane allows further comments or notes to each flow object.
- ☐ A lane is always located within a specific pool.
- ☐ A lane is used for the execution of activities.

The correct answer is: A lane is always located within a specific pool.

## QUESTION 8 OF 20

Marked out of 3.00

Which statement about UML activity diagrams is correct?

Select one:

- ☐ UML activity diagrams are used to model business objects and systems.
- ☐ UML activity diagrams are used to document the functional states of a system.
- ☐ UML activity diagrams are used to determine the system context.
- ☐ UML activity diagrams are used to refine and detail use cases.

The correct answer is: UML activity diagrams are used to refine and detail use cases.

## MASTERSOLUTION

### QUESTION 9 OF 20

Marked out of 3.00

What is the process called by which we selectively turn our attention to certain dimensions of our (possible) experiences and exclude others?

Select one:

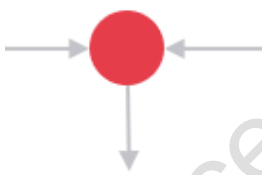
- ☐ Deletion
- ☐ Brainstorming
- ☐ Distortion
- ☐ Generalization

The correct answer is: Deletion

### QUESTION 10 OF 20

Marked out of 3.00

Which UML state diagram element is shown in the figure?



Select one:

- ☐ State
- ☐ End state
- ☐ Join
- ☐ Split

The correct answer is: Join

## MASTERSOLUTION

### QUESTION 11 OF 20

Marked out of 3.00

Which investigation technique should you choose when the stakeholders have low motivation to actively participate?

Select one:

- ☐ Change of perspective
- ☐ Design thinking
- ☐ Apprenticing
- ☐ System archeology

The correct answer is: System archeology

### QUESTION 12 OF 20

Marked out of 3.00

What is a disadvantage of formal specification in requirements documentation?

Select one:

- ☐ It is always ambiguous due to missing structure.
- ☐ Modeling language must be defined to use it correctly.
- ☐ Creation is time consuming as the text is very long.
- ☐ Programming skills are needed to understand it.

The correct answer is: Programming skills are needed to understand it.

## MASTERSOLUTION

### QUESTION 13 OF 20

Marked out of 3.00

In the field of business processes, an activity ...

Select one:

- ☐ is following business rules and regulations.
- ☐ has a role.
- ☐ belongs to an organizational unit.
- ☐ triggers a user.

The correct answer is: is following business rules and regulations.

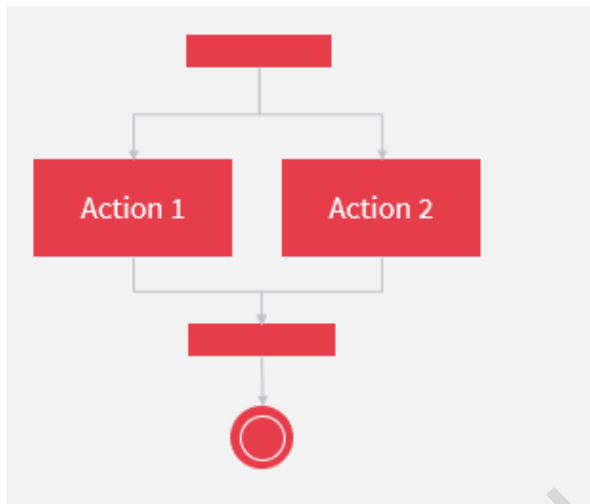


## MASTERSOLUTION

### QUESTION 14 OF 20

Marked out of 3.00

Find the correct statement that matches the UML activity diagram shown below?



Select one:

- ☐ Either action 1 or action 2 will be executed before reaching the end point.
- ☐ End point will only be arrived after Action 1 and Action 2 have been executed.
- ☐ Action 1 or action 2 or both actions will be executed before reaching the end point.
- ☐ Action 2 will only be executed after it has been triggered by a certain event.

The correct answer is: End point will only be arrived after Action 1 and Action 2 have been executed.

## MASTERSOLUTION

### QUESTION 15 OF 20

Marked out of 6.00

- a) Briefly describe a system boundary.
- b) Briefly describe a context boundary.

- a) System boundary: separates the system from its relevant environment, may not be stable from the beginning; changes of the functional scope of the system change the system boundary. (3 points)
- b) System context: separates the system context from the irrelevant environment (3 points)

### QUESTION 16 OF 20

Marked out of 6.00

Describe briefly what a stakeholder table is and the benefits which it brings.

A stakeholder table documents relevant information about stakeholders (2 points), e.g. contact information, knowledge, interests, motivation, relevance (1 point). One can derive the stakeholder archetype from the table and therefore give guidance on how to interact with each stakeholder (2 points). It should be updated during the whole project (1 point).

## MASTERSOLUTION

### QUESTION 17 OF 20

Marked out of 8.00

- a) Briefly describe Field observation.  
b) Name two strengths and two weaknesses of field observation.

- a)  
- requirements engineer is on site and observes business processes taking place (1 point)  
- can actively ask questions and have work processes explained to them (1 point)

b)

Strengths: (each 1.5 point, max. 3 points)

- Unconscious requirements can be identified.
- Requirements that are difficult to put into words can be identified.
- It can be implemented when stakeholders are not available.
- Detection of deviations in processes is possible.

Weaknesses: (each 1.5 points, max. 3 points)

- Processes must be observable.
- The requirements engineer's observations can influence the behavior of the people, and thus the requirements.

## MASTERSOLUTION

### QUESTION 18 OF 20

Marked out of 8.00

- a) Name and briefly describe the two types of splitting OR gateways in BPMN.  
b) Briefly describe a joining and a splitting AND gateway.

- a) - Exclusive OR (1 point). Flow can only be enabled to one output port. (1 point).
- Inclusive OR (1 point). Flow is enabled to one or more output ports if the condition is fulfilled (1 point)
- b) - joining AND gateway: flow is only forwarded if there are tokens at all input ports. (2 points)
- splitting AND gateway: new tokens for all output ports are generated and the flow goes to all output ports (2 points)

## MASTERSOLUTION

### QUESTION 19 OF 20

Marked out of 10.00

- a) Name two elements of a UML Class Diagram.
- b) Briefly describe the meaning of the relation that is represented with a straight line with hollow arrowhead in a UML class diagram.
- c) Briefly describe the meaning of the relation that is represented with only a straight line in a UML class diagram.
- d) Multiplicities are used to specify associations. Name two multiplicities in UML class diagrams and their meaning.

- a) Class (1 point), attribute (1 point)
- b) The class pointed to by the arrowhead inherits all attributes of the classes at the other end of the relationship (3 points)
- c) classes have a relationship, which is not specified in detail (1 point)
- d) 1 point for naming, 1 point for meaning, max. 4 points:
  - 1: mandatory association
  - 0..\*: optional arbitrary association
  - 1..\*: Arbitrary association with 1 as minimum
  - n..m: Minimum n and maximum m
  - 0..1: optional association

## QUESTION 20 OF 20

Marked out of 10.00

A requirements engineer has to fulfill different tasks.

- a) Name three of these tasks.
- b) Name two characteristics that help the requirements engineer to successfully fulfill these tasks.

a) *2 points for each task, max. 6 points*

- Elicit and document the stakeholders' wishes and requirements for the system
- Moderator and mediator between stakeholders and project members
- Catalyst for stakeholder decisions
- Select the right stakeholders
- Check and evaluate boundary conditions

b) *2 points for each characteristic, max. 4 points*

- Sensitivity for the needs of the project participants
- Communication and conflict solving skills
- Empathy
- Analytical thinking