CANDIDATE

DAT232-0037-YPB_2025-10-30_Bonus_NA

TEST

DAT232 HT25 LP1 Ordinarie tentamen - J

Subject code	--
Evaluation type	1
Test opening time	30.10.2025 08:30
End time	30.10.2025 12:30
Grade deadline	--
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1 - Instructions

Question	Status	Marks	Question type
ℹ			Information or resources

2 - Multiple Choice

Question	Status	Marks	Question type
ℹ			Information or resources
1.1	Correct	1/1	Multiple Choice
1.2	Correct	1/1	Multiple Choice
1.3	Correct	1/1	Multiple Choice
1.4	Wrong	0/1	Multiple Choice
1.5	Correct	1/1	Multiple Choice
1.6	Wrong	0/1	Multiple Choice
1.7	Wrong	0/1	Multiple Choice
1.8	Wrong	0/1	Multiple Choice
1.9	Wrong	0/1	Multiple Choice
1.10	Wrong	0/1	Multiple Choice
1.11	Correct	1/1	Multiple Choice
1.12	Wrong	0/1	Multiple Choice
1.13	Correct	1/1	Multiple Choice
1.14	Correct	1/1	Multiple Choice
1.15	Wrong	0/1	Multiple Choice
1.16	Wrong	0/1	Multiple Choice

1.17	Correct	1/1	Multiple Choice
1.18	Correct	1/1	Multiple Choice
1.19	Wrong	0/1	Multiple Choice
1.20	Wrong	0/1	Multiple Choice
1.21	Wrong	0/1	Multiple Choice
1.22	Wrong	0/1	Multiple Choice
1.23	Wrong	0/1	Multiple Choice
1.24	Wrong	0/1	Multiple Choice
1.25	Wrong	0/1	Multiple Choice
1.26	Wrong	0/1	Multiple Choice
1.27	Wrong	0/1	Multiple Choice
1.28	Wrong	0/1	Multiple Choice
1.29	Wrong	0/1	Multiple Choice
1.30	Correct	1/1	Multiple Choice
1.31	Wrong	0/1	Multiple Choice
1.32	Wrong	0/1	Multiple Choice
1.33	Wrong	0/1	Multiple Choice
1.34	Wrong	0/1	Multiple Choice
1.35	Wrong	0/1	Multiple Choice
1.36	Wrong	0/1	Multiple Choice
1.37	Wrong	0/1	Multiple Choice
1.38	Correct	1/1	Multiple Choice

1.39	Correct	1/1	Multiple Choice
1.40	Correct	1/1	Multiple Choice

3 - Interactive Tasks

Question	Status	Marks	Question type
ℹ			Information or resources
2.1	Partially Correct	2/10	Matching
2.2	Partially Correct	4/10	Inline Choice

4 - Essay questions

Question	Status	Marks	Question type
ℹ			Information or resources
3.1	Answered	Manually marked	Essay
3.2	Answered	Manually marked	Essay

1.1

Proposition	Reason
According to IEEE Definition of *Requirement* from 1990, a requirement must be explicitly written down, otherwise it is not a requirement.	According to the IEEE Definition from 1990, a Requirement is: (1) A condition or capability needed by a user to solve a problem or achieve an objective. (2) A condition or capability that must be met or possessed by a system or system component to satisfy a contract, standard, specification, or other formally imposed document. (3) A documented representation of a condition or capability as in (1) or (2).

Select one alternative:

- A) Both the proposition and the reason are correct statements. In addition, the reason explains the proposition in a correct way, i.e. the reason explains why the proposition is correct.
- B) Both the proposition and the reason are correct statements, but the reason does not explain the proposition.
- C) The proposition is a true statement, but the reason is false.
- D) The proposition is false, but the reason is a true statement. ✓
- E) Both the proposition and the reason are false.

Maximum marks: 1

1.2

Proposition	Reason
Tacit knowledge is difficult to transfer to another person by writing it down or verbalizing it.	Developers and users may not share a common language, thus making it hard to communicate about requirements.

Select one alternative:

- A) Both the proposition and the reason are correct statements. In addition, the reason explains the proposition in a correct way, i.e. the reason explains why the proposition is correct.
- B) Both the proposition and the reason are correct statements, but the reason does not explain the proposition. ✓
- C) The proposition is a true statement, but the reason is false.
- D) The proposition is false, but the reason is a true statement.
- E) Both the proposition and the reason are false.

Maximum marks: 1

1.3

Proposition	Reason
Only real persons can be stakeholders.	A stakeholder must have a valid id with their contact information.

Select one alternative:

- A) Both the proposition and the reason are correct statements. In addition, the reason explains the proposition in a correct way, i.e. the reason explains why the proposition is correct.
- B) Both the proposition and the reason are correct statements, but the reason does not explain the proposition.
- C) The proposition is a true statement, but the reason is false.
- D) The proposition is false, but the reason is a true statement.
- E) Both the proposition and the reason are false. ✓

Maximum marks: 1

1.4

Proposition	Reason
According to Lauesen, interviews are not suitable for conflict resolution.	Interviews must always be conducted with a single individuum as interviewee.

Select one alternative:

- A) Both the proposition and the reason are correct statements. In addition, the reason explains the proposition in a correct way, i.e. the reason explains why the proposition is correct.
- B) Both the proposition and the reason are correct statements, but the reason does not explain the proposition.
- C) The proposition is a true statement, but the reason is false. ✔
- D) The proposition is false, but the reason is a true statement.
- E) Both the proposition and the reason are false.

Maximum marks: 1

1.5

Proposition	Reason
According to Lauesen, each group that participates in a focus group must "get something".	If a stakeholder group does not get something in return, they are rarely willing to contribute to the system.

Select one alternative:

- A) Both the proposition and the reason are correct statements. In addition, the reason explains the proposition in a correct way, i.e. the reason explains why the proposition is correct.
- B) Both the proposition and the reason are correct statements, but the reason does not explain the proposition.
- C) The proposition is a true statement, but the reason is false.
- D) The proposition is false, but the reason is a true statement.
- E) Both the proposition and the reason are false.

Maximum marks: 1

1.6

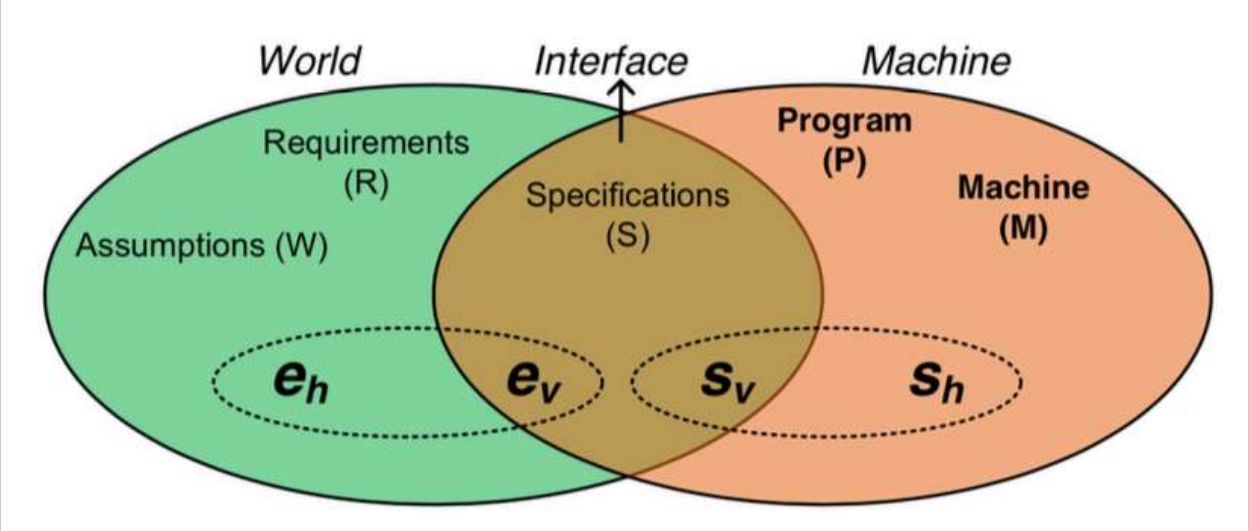
Proposition	Reason
Goal domain tracing is both useful for elicitation and validation of requirements.	Goal domain tracing allows to validate whether each task or quality factor has a purpose with respect to business goals as well as to validate that each business goal is sufficiently supported by tasks and quality factors.

Select one alternative:

- A) Both the proposition and the reason are correct statements. In addition, the reason explains the proposition in a correct way, i.e. the reason explains why the proposition is correct.
- B) Both the proposition and the reason are correct statements, but the reason does not explain the proposition.
- C) The proposition is a true statement, but the reason is false.
- D) The proposition is false, but the reason is a true statement.
- E) Both the proposition and the reason are false.

Maximum marks: 1

1.7



Proposition	Reason
The WRSP model does support architectural decomposition.	The WRSP model defines requirements and specification based on events in the "world" and states in the "machine". These states can be used to describe the logical architecture, thus allowing to map requirements to logical components.

Select one alternative:

- A) Both the proposition and the reason are correct statements. In addition, the reason explains the proposition in a correct way, i.e. the reason explains why the proposition is correct.
- B) Both the proposition and the reason are correct statements, but the reason does not explain the proposition.
- C) The proposition is a true statement, but the reason is false. ✖
- D) The proposition is false, but the reason is a true statement. ✔
- E) Both the proposition and the reason are false.

Maximum marks: 1

1.8

Proposition	Reason
According to Glinz, an attribute is a performance requirement, a specific quality requirement, or a constraint.	It is equally difficult to make performance requirements, specific quality requirements, and constraints measurable.

Select one alternative:

- A) Both the proposition and the reason are correct statements. In addition, the reason explains the proposition in a correct way, i.e. the reason explains why the proposition is correct.
- B) Both the proposition and the reason are correct statements, but the reason does not explain the proposition.
- C) The proposition is a true statement, but the reason is false.
- D) The proposition is false, but the reason is a true statement.
- E) Both the proposition and the reason are false. ✔

Maximum marks: 1

1.9

Proposition	Reason
Lauesen discourages using requirements as part of a contract between customer and supplier.	If requirements are part of a contract between customer and supplier, changing a requirement entails changing the contract, which may involve legal teams on both sides.

Select one alternative:

- A) Both the proposition and the reason are correct statements. In addition, the reason explains the proposition in a correct way, i.e. the reason explains why the proposition is correct.
- B) Both the proposition and the reason are correct statements, but the reason does not explain the proposition.
- C) The proposition is a true statement, but the reason is false.
- D) The proposition is false, but the reason is a true statement. ✔
- E) Both the proposition and the reason are false.

Maximum marks: 1

1.10

Proposition	Reason
It is hard to ensure that a requirements specification is complete.	Completeness of a requirements specification refers to all necessary requirements being included.

Select one alternative:

- A) Both the proposition and the reason are correct statements. In addition, the reason explains the proposition in a correct way, i.e. the reason explains why the proposition is correct.
- B) Both the proposition and the reason are correct statements, but the reason does not explain the proposition.
- C) The proposition is a true statement, but the reason is false.
- D) The proposition is false, but the reason is a true statement.
- E) Both the proposition and the reason are false.

Maximum marks: 1

1.11

Proposition	Reason
It is insufficient to define completeness of a specification in relation to the template for the specification.	Lauesen warns about template blindness, which can narrow down ones view to what the template deals with.

Select one alternative:

- A) Both the proposition and the reason are correct statements. In addition, the reason explains the proposition in a correct way, i.e. the reason explains why the proposition is correct.
- B) Both the proposition and the reason are correct statements, but the reason does not explain the proposition.
- C) The proposition is a true statement, but the reason is false.
- D) The proposition is false, but the reason is a true statement.
- E) Both the proposition and the reason are false.

Maximum marks: 1

1.12

Proposition	Reason
A feature based approach to documenting requirements facilitates an unambiguous requirements specification.	In a feature based approach, each requirements is one statement about a feature of a system.

Select one alternative:

- A) Both the proposition and the reason are correct statements. In addition, the reason explains the proposition in a correct way, i.e. the reason explains why the proposition is correct.
- B) Both the proposition and the reason are correct statements, but the reason does not explain the proposition.
- C) The proposition is a true statement, but the reason is false.
- D) The proposition is false, but the reason is a true statement.
- E) Both the proposition and the reason are false.

Maximum marks: 1

1.13

Proposition	Reason
In order to achieve a good enough requirements specification, it is important to focus on the requirements that everybody knows about.	Requirements that are well known by many stakeholders are easily misinterpreted.

Select one alternative:

- A) Both the proposition and the reason are correct statements. In addition, the reason explains the proposition in a correct way, i.e. the reason explains why the proposition is correct.
- B) Both the proposition and the reason are correct statements, but the reason does not explain the proposition.
- C) The proposition is a true statement, but the reason is false.
- D) The proposition is false, but the reason is a true statement.
- E) Both the proposition and the reason are false.

Maximum marks: 1

1.14

Proposition	Reason
Data expressions are suitable for specifying message protocols.	Data expressions are simplified screens with realistic data.

Select one alternative:

- A) Both the proposition and the reason are correct statements. In addition, the reason explains the proposition in a correct way, i.e. the reason explains why the proposition is correct.
- B) Both the proposition and the reason are correct statements, but the reason does not explain the proposition.
- C) The proposition is a true statement, but the reason is false. ✓
- D) The proposition is false, but the reason is a true statement.
- E) Both the proposition and the reason are false.

Maximum marks: 1

1.15

Proposition	Reason
The event list & function list approach allows to trace between product-level requirements and design-level requirements.	The event list & function list approach establishes many-to-many relationships between domain events and product events.

Select one alternative:

- A) Both the proposition and the reason are correct statements. In addition, the reason explains the proposition in a correct way, i.e. the reason explains why the proposition is correct. ✗
- B) Both the proposition and the reason are correct statements, but the reason does not explain the proposition.
- C) The proposition is a true statement, but the reason is false.
- D) The proposition is false, but the reason is a true statement. ✓
- E) Both the proposition and the reason are false.

Maximum marks: 1

1.16

Proposition	Reason
To a degree, scenario-based approaches such as task descriptions can support completeness of functional requirements.	It is relatively easy to spot missing sub-tasks in task descriptions

Select one alternative:

- A) Both the proposition and the reason are correct statements. In addition, the reason explains the proposition in a correct way, i.e. the reason explains why the propos ✔ ı is correct.
- B) Both the proposition and the reason are correct statements, but the reason does not explain the proposition.
- C) The proposition is a true statement, but the reason is false. ✖
- D) The proposition is false, but the reason is a true statement.
- E) Both the proposition and the reason are false.

Maximum marks: 1

1.17

Proposition	Reason
Creativity techniques in requirements engineering should replace elicitation.	Stakeholders cannot provide novel requirements.

Select one alternative:

- A) Both the proposition and the reason are correct statements. In addition, the reason explains the proposition in a correct way, i.e. the reason explains why the proposition is correct.
- B) Both the proposition and the reason are correct statements, but the reason does not explain the proposition.
- C) The proposition is a true statement, but the reason is false.
- D) The proposition is false, but the reason is a true statement.
- E) Both the proposition and the reason are false. ✔

Maximum marks: 1

1.18

Proposition	Reason
Convergent thinking (to evaluate and choose the best ideas) should be avoided during Creative Problem Solving (CPS).	A core principle of CPS is to defer judgment.

Select one alternative:

- A) Both the proposition and the reason are correct statements. In addition, the reason explains the proposition in a correct way, i.e. the reason explains why the proposition is correct.
- B) Both the proposition and the reason are correct statements, but the reason does not explain the proposition.
- C) The proposition is a true statement, but the reason is false.
- D) The proposition is false, but the reason is a true statement. ✓
- E) Both the proposition and the reason are false.

Maximum marks: 1

1.19

Proposition	Reason
A taxonomy of system and software quality characteristics helps to identify relevant quality attributes.	Many established quality taxonomies such as ISO25010 and ISO25019 are incomplete.

Select one alternative:

- A) Both the proposition and the reason are correct statements. In addition, the reason explains the proposition in a correct way, i.e. the reason explains why the proposition is correct.
- B) Both the proposition and the reason are correct statements, but the reason do not explain the proposition. ✓
- C) The proposition is a true statement, but the reason is false. ✗
- D) The proposition is false, but the reason is a true statement.
- E) Both the proposition and the reason are false.

Maximum marks: 1

1.20

Proposition	Reason
Functionality is not a quality characteristic.	Quality characteristics include specific quality attributes and performance, but no functional requirements.

Select one alternative:

- A) Both the proposition and the reason are correct statements. In addition, the reason explains the proposition in a correct way, i.e. the reason explains why the proposition is correct. ✖
- B) Both the proposition and the reason are correct statements, but the reason does not explain the proposition.
- C) The proposition is a true statement, but the reason is false.
- D) The proposition is false, but the reason is a true statement. ✔
- E) Both the proposition and the reason are false.

Maximum marks: 1

1.21

Proposition	Reason
Open metric allows to rely on the suppliers expertise with respect to knowing how to measure the quality of the system.	Open metric delegates responsibility for reaching the project goals to the supplier, who is now responsible for the acceptance test of quality requirements.

Select one alternative:

- A) Both the proposition and the reason are correct statements. In addition, the reason explains the proposition in a correct way, i.e. the reason explains why the proposition is correct. ✖
- B) Both the proposition and the reason are correct statements, but the reason does not explain the proposition.
- C) The proposition is a true statement, but the reason is false. ✔
- D) The proposition is false, but the reason is a true statement.
- E) Both the proposition and the reason are false.

Maximum marks: 1

1.22

Proposition	Reason
Planguage is a template that facilitates testable spefication of quality requirements.	Specifically, the Meter field in the Planguage template ensures testibility of requirements.

Select one alternative:

- A) Both the proposition and the reason are correct statements. In addition, the reason explains the proposition in a correct way, i.e. the reason explains why the proposition is correct. ✗
- B) Both the proposition and the reason are correct statements, but the reason does not explain the proposition.
- C) The proposition is a true statement, but the reason is false. ✓
- D) The proposition is false, but the reason is a true statement.
- E) Both the proposition and the reason are false.

Maximum marks: 1

1.23

Proposition	Reason
Priority grouping is a simple, but often flawed approach to prioritization.	Priority grouping does not require challenging requirements against each other and may lead to too many high priority requirements.

Select one alternative:

- A) Both the proposition and the reason are correct statements. In addition, the reason explains the proposition in a correct way, i.e. the reason explains why the proposition is correct. ✓
- B) Both the proposition and the reason are correct statements, but the reason does not explain the proposition.
- C) The proposition is a true statement, but the reason is false. ✗
- D) The proposition is false, but the reason is a true statement.
- E) Both the proposition and the reason are false.

Maximum marks: 1

1.24

Proposition	Reason
In prioritization, the ordinal scale should be favored, since it has the highest expressive power of all available scales.	The ordinal scale allows to express that requirement A is 2x as important than requirement B.

Select one alternative:

- A) Both the proposition and the reason are correct statements. In addition, the reason explains the proposition in a correct way, i.e. the reason explains why the proposition is correct. ✗
- B) Both the proposition and the reason are correct statements, but the reason does not explain the proposition.
- C) The proposition is a true statement, but the reason is false.
- D) The proposition is false, but the reason is a true statement.
- E) Both the proposition and the reason are false. ✓

Maximum marks: 1

1.25

Proposition	Reason
Horizontal traceability refers to tracing across different phases of the waterfall model.	Ramesh and Edwards define horizontal traceability as tracing between artifacts of different types (e.g. tests and requirements).

Select one alternative:

- A) Both the proposition and the reason are correct statements. In addition, the reason explains the proposition in a correct way, i.e. the reason explains why the proposition is correct.
- B) Both the proposition and the reason are correct statements, but the reason does not explain the proposition.
- C) The proposition is a true statement, but the reason is false.
- D) The proposition is false, but the reason is a true statement. ✗
- E) Both the proposition and the reason are false. ✓

Maximum marks: 1

1.26

Proposition	Reason
Pre-requirements traceability supports validation.	Pre-requirements traceability connects requirements to their source or origin, thus establishing whether a requirement is needed.

Select one alternative:

- A) Both the proposition and the reason are correct statements. In addition, the reason explains the proposition in a correct way, i.e. the reason explains why the propos ✔ n is correct.
- B) Both the proposition and the reason are correct statements, but the reason does not explain the proposition.
- C) The proposition is a true statement, but the reason is false.
- D) The proposition is false, but the reason is a true statement. ✖
- E) Both the proposition and the reason are false.

Maximum marks: 1

1.27

Proposition	Reason
In change impact analysis, traceability can be used to generate the Candidate Impact Set.	If important tracelinks are missing, the candidate impact set my not include all artifacts of the actual impact set.

Select one alternative:

- A) Both the proposition and the reason are correct statements. In addition, the reason explains the proposition in a correct way, i.e. the reason explains why the propos ✖ n is correct.
- B) Both the proposition and the reason are correct statements, but the reason do ✔ not explain the proposition.
- C) The proposition is a true statement, but the reason is false.
- D) The proposition is false, but the reason is a true statement.
- E) Both the proposition and the reason are false.

Maximum marks: 1

1.28

Proposition	Reason
GDT is a specific traceability matrix.	Traceability matrices are often shown with the same artifacts in both dimensions and an indication in a "cell" if the artifacts of this cell's column and row are connected.

Select one alternative:

- A) Both the proposition and the reason are correct statements. In addition, the reason explains the proposition in a correct way, i.e. the reason explains why the proposition is correct.
- B) Both the proposition and the reason are correct statements, but the reason does not explain the proposition.
- C) The proposition is a true statement, but the reason is false.
- D) The proposition is false, but the reason is a true statement.
- E) Both the proposition and the reason are false.

Maximum marks: 1

1.29

Proposition	Reason
A graphical model that connects business goal 1 with task description 7 is not a TIM.	A TIM is the metamodel that defines which tracelinks between artifacts are allowed and which tracelinks between artifacts are required.

Select one alternative:

- A) Both the proposition and the reason are correct statements. In addition, the reason explains the proposition in a correct way, i.e. the reason explains why the proposition is correct.
- B) Both the proposition and the reason are correct statements, but the reason does not explain the proposition.
- C) The proposition is a true statement, but the reason is false.
- D) The proposition is false, but the reason is a true statement.
- E) Both the proposition and the reason are false.

Maximum marks: 1

1.30

Proposition	Reason
Even outdated tracelinks are better than no tracelinks.	Outdated tracelinks create additional work, as irrelevant artifacts must be considered when relying on traceability. At the same time, relevant artifacts may be overlooked, since a tracelink has not yet been set. In particular the latter can be critical in many use cases.

Select one alternative:

- A) Both the proposition and the reason are correct statements. In addition, the reason explains the proposition in a correct way, i.e. the reason explains why the proposition is correct.
- B) Both the proposition and the reason are correct statements, but the reason does not explain the proposition.
- C) The proposition is a true statement, but the reason is false.
- D) The proposition is false, but the reason is a true statement. ✓
- E) Both the proposition and the reason are false.

Maximum marks: 1

1.31

Proposition	Reason
A CRUD matrix supports verification of requirements.	Verification can be expressed as the question "Do the requirements fulfil the stakeholder needs/goals" and a CRUD matrix allows to trace from data requirements to goals.

Select one alternative:

- A) Both the proposition and the reason are correct statements. In addition, the reason explains the proposition in a correct way, i.e. the reason explains why the proposition is correct. ✗
- B) Both the proposition and the reason are correct statements, but the reason does not explain the proposition.
- C) The proposition is a true statement, but the reason is false. ✓
- D) The proposition is false, but the reason is a true statement.
- E) Both the proposition and the reason are false.

Maximum marks: 1

1.32

Proposition	Reason
Inspections can provide both validation and verification of requirements.	Inspections are a systematic method for manually reading through specifications.

Select one alternative:

- A) Both the proposition and the reason are correct statements. In addition, the reason explains the proposition in a correct way, i.e. the reason explains why the proposition is correct.
- B) Both the proposition and the reason are correct statements, but the reason does not explain the proposition. ✔
- C) The proposition is a true statement, but the reason is false.
- D) The proposition is false, but the reason is a true statement. ✖
- E) Both the proposition and the reason are false.

Maximum marks: 1

1.33

Proposition	Reason
Usability tests is a good approach for requirements verification.	During a usability check, the facilitator will guide the user through checking the consistency of requirements.

Select one alternative:

- A) Both the proposition and the reason are correct statements. In addition, the reason explains the proposition in a correct way, i.e. the reason explains why the proposition is correct. ✖
- B) Both the proposition and the reason are correct statements, but the reason does not explain the proposition.
- C) The proposition is a true statement, but the reason is false.
- D) The proposition is false, but the reason is a true statement.
- E) Both the proposition and the reason are false. ✔

Maximum marks: 1

1.34

Proposition	Reason
In agile software development, development teams will have to do "Just-in-time" RE.	The only other option would be to fully analyse the requirements before the team starts to develop, effectively establishing a waterfall process.

Select one alternative:

- A) Both the proposition and the reason are correct statements. In addition, the reason explains the proposition in a correct way, i.e. the reason explains why the propos ✔ n is correct.
- B) Both the proposition and the reason are correct statements, but the reason do not explain the proposition. ✖
- C) The proposition is a true statement, but the reason is false.
- D) The proposition is false, but the reason is a true statement.
- E) Both the proposition and the reason are false.

Maximum marks: 1

1.35

Proposition	Reason
A user story is more than just the text, it should also include confirmation, i.e. describing its acceptance test.	The most common template for a user story (As a <role> I want <feature> so that <value>) ensures that a user story is testable.

Select one alternative:

- A) Both the proposition and the reason are correct statements. In addition, the reason explains the proposition in a correct way, i.e. the reason explains why the proposition is correct.
- B) Both the proposition and the reason are correct statements, but the reason does not explain the proposition.
- C) The proposition is a true statement, but the reason is false. ✔
- D) The proposition is false, but the reason is a true statement.
- E) Both the proposition and the reason are false. ✖

Maximum marks: 1

1.36

Proposition	Reason
In large-scale agile approaches, non-functional requirements should not be managed on team level.	Non-functional requirements are usually cross-cutting, thus, they affect multiple components, functional requirements, and teams.

Select one alternative:

- A) Both the proposition and the reason are correct statements. In addition, the reason explains the proposition in a correct way, i.e. the reason explains why the propos ✔ n is correct.
- B) Both the proposition and the reason are correct statements, but the reason does not explain the proposition.
- C) The proposition is a true statement, but the reason is false.
- D) The proposition is false, but the reason is a true statement. ✖
- E) Both the proposition and the reason are false.

Maximum marks: 1

1.37

Proposition	Reason
Many modern vehicles (not only those with self-driving capabilities) take pictures and videos of their surroundings, especially of humans that approach them while they are parked. This can be considered as an ethical problem.	Imagine a school child approaching a parked vehicle. The vehicle taking pictures and sharing them with an unknown group of recipients can be considered a violation of the EU ethical guideline of Nonmaleficience.

Select one alternative:

- A) Both the proposition and the reason are correct statements. In addition, the reason explains the proposition in a correct way, i.e. the reason explains why the propos ✖ n is correct.
- B) Both the proposition and the reason are correct statements, but the reason does not explain the proposition.
- C) The proposition is a true statement, but the reason is false. ✔
- D) The proposition is false, but the reason is a true statement.
- E) Both the proposition and the reason are false.

Maximum marks: 1

1.38

Proposition	Reason
During requirements analysis, anonymisation is no longer a concern.	Anonymisation (defined as a component of confidentiality involving not revealing any data that can be used to identify subjects) should happen during elictation.

Select one alternative:

- A) Both the proposition and the reason are correct statements. In addition, the reason explains the proposition in a correct way, i.e. the reason explains why the proposition is correct.
- B) Both the proposition and the reason are correct statements, but the reason does not explain the proposition.
- C) The proposition is a true statement, but the reason is false.
- D) The proposition is false, but the reason is a true statement. ✓
- E) Both the proposition and the reason are false.

Maximum marks: 1

1.39

Proposition	Reason
Ambiguous requirements can cause ethical problems.	Ambiguity in requirements often leads to ambiguous or biased interpretation, however, biases and fairness are important ethical consideration.

Select one alternative:

- A) Both the proposition and the reason are correct statements. In addition, the reason explains the proposition in a correct way, i.e. the reason explains why the proposition is correct. ✓
- B) Both the proposition and the reason are correct statements, but the reason does not explain the proposition.
- C) The proposition is a true statement, but the reason is false.
- D) The proposition is false, but the reason is a true statement.
- E) Both the proposition and the reason are false.

Maximum marks: 1

1.40

Proposition	Reason
Optimizing for overall safety may still disadvantage certain groups (e.g., cyclists, children, or pedestrians in low-visibility conditions).	Without additional effort for these groups, the overall safety strategy may not sufficiently represent these groups because a) they may be underrepresented in the data (particular in low-visibility conditions) and b) they are more vulnerable than other traffic participants.

Select one alternative:

- A) Both the proposition and the reason are correct statements. In addition, the reason explains the proposition in a correct way, i.e. the reason explains why the proposition is correct.
- B) Both the proposition and the reason are correct statements, but the reason does not explain the proposition.
- C) The proposition is a true statement, but the reason is false.
- D) The proposition is false, but the reason is a true statement.
- E) Both the proposition and the reason are false.

Maximum marks: 1

2.1

Please match the requirements in the table below with the most suitable alternative level.

	Goal-level	Domain-level	Product-level	Design-level
The system shall allow efficient usage with one hand only.			✓	✗
For all fields, the user shall be able to select the value from a drop-down list.			✗	✓
The product shall have a function for retrieving items based on specified keywords.		✗	✓	
The product screens shall look as shown in appendix xx.				✓
The menu points and buttons shall work as described in appendix yy.			✗	✓
The product shall support the user registration task.	✗	✓		
The product shall support estimations that match actual scores within a standard deviation of 1%.	✓	✗		
The product shall handle the booking task.	✗	✓		
The system shall have a mini keyboard with start/stop button.				✓
The product shall have a function for storing new items based on their associated keywords.		✗	✓	

Maximum marks: 10

2.2 Consider the following requirements in a bespoke project that aims to build a tailor-made solution. Judge whether they mainly pose a risk for the customer or the supplier and select the most valid reason.

R1 At most 1 of 5 novices shall encounter critical problems during tasks Q and R. At most 5 medium problems shall be encountered in total.

This requirement mainly poses a risk for the Supplier ✓ (Customer, Supplier),

since The customer might not accept the solution even if the test is successful ✗ (The customer might not accept the solution even if the test is successful, The requirements style does not allow for usability tests, The solution might not work for the customer even if the requirement is fulfilled, It cannot be known whether this requirement is feasible.)

R2 Novice users shall perform tasks Q and R in 15 minutes. Experienced users shall perform tasks Q, R, and S in 2 minutes.

This requirement mainly poses a risk for the Supplier ✓ (Supplier, Customer),

since The product may not be usable even if the test is successful ✗ (The proper time limit is hard to define, The requirements style does not allow for usability tests, The requirement cannot be assessed early in the project, The product may not be usable even if the test is successful)

R3 Recording breakfast shall be possible with 5 keystrokes per guest. No mouse.

This requirement mainly poses a risk for the Customer ✓ (Customer, Supplier),

since The solution might not work for the customer even if the requirement is fulfilled ✓ (It cannot be known whether this requirement is feasible, The solution might not work for the customer even if the requirement is fulfilled, The requirements style does not allow for usability tests, The requirement cannot be assessed early in the project)

R4 System shall use screen pictures in app. xx, buttons work as app. yy

This requirement mainly poses a risk for the Supplier ✗ (Customer, Supplier),

since The requirements style does not allow for usability tests ✗ (The requirement cannot

be assessed early in the project, The requirements style does not allow for usability tests, It cannot be known whether this requirement is feasible, The solution might not work for the customer even if the requirement is fulfilled)

R5 The system shall follow style guide zz. Menus shall have at most three levels.

This requirement mainly poses a risk for the Supplier ✗ (Customer, Supplier),

since It cannot be known whether this requirement is feasible ✗ (The solution might not work for the customer even if the requirement is fulfilled, It cannot be known whether this requirement is feasible, The requirements style does not allow for usability tests, The requirement cannot be assessed early in the project)

Maximum marks: 10

3.1 Topic: Elicitation **(10p)**

List of concepts: 3 examples of elicitation techniques (including how they are used, when to use them, when not to use them, if and how they should be combined), stakeholder, negotiation of conflicting requirements

Write your answer in the box below. Changes are saved automatically.

Elicitation helps to find stakeholders and their needs.
Examples of elicitation techniques are interviews, questionnaire, and literature research.
Interview is set between the requirements engineer and the interviewee, that requirements engineer asks the interviewee through a set of prepared questions. It is used at the early stage of elicitation process.
Questionnaire is a structured form of questions that set by requirements engineers for collecting and analyzing information from their target audiences. It is used at the mid stage of elicitation process.
Literature research is a way to browse and analyze data or information from the existing resources globally. It is used at the late stage of elicitation process.
They can be combined as they support differently. Interview helps to build a foundation of the market and stakeholder interests and needs, questionnaire helps to point a specific direction and gives a strong data analysis, and literature research can further prove the data result from questionnaire analysis. All techniques together help clarifying and refining business goals.

Stakeholder represents different groups of perspectives in a system.
Examples of stakeholders are suppliers, customers, investors.
Suppliers, customers and investors are the most common stakeholders, supplier is to provide the solution of a problem, customer is to use the final product to solve the problem, investor is to support the product being activate and accessible.

Negotiation of conflicting requirements balance and solve the conflicts among requirements.Since different groups of stakeholders have their own perspectives, their needs may cause conflicts, therefore, negotiation of conflicting requirements is important to solve this issue.

Words: 251

Maximum marks: 10

3.2 Checking and Validation **(10p)**

List of concepts:
- complete,
- unambiguous,
- consistent,
- modifiable,
- verifiable

Write your answer in the box below. Changes are saved automatically.

Checking and Validation is to check whether requirements engineers build a correct system and whether the system is built correctly.

A requirement is a condition or capability needed by a user or system to solve a problem or achieve an objective.

Complete: According to stakeholders' needs, all necessary requirements being included.
Unambiguous: Unbiased interpretation for each requirement. Stakeholders often share different common knowledge, thus they can commonly get misinterpretation.
Consistent: Ensure consistency of requirements, that requirements are traceable from business goals, use cases, functional requirements, non-functional requirements, and system requirements.
Modifiable: Ensure requirements are modifiable later in the iterations of developing process. As during the development, issues can start showing when engineers try to fulfill the requirements. Hence, certain requirements need to get modified and negotiated.
Verifiable: Ensure requirements are verifiable and testable.

Words: 133

Maximum marks: 10