

KK05 — Validation techniques

Development & Evaluation · Comprehensive exam study guide

STUDY DESIGN — YOU MUST KNOW

- existence checking
- type checking
- range checking

Validation is implemented during development to ensure input is reasonable before processing. Same three techniques as Programming KK10 — here you may need to choose, implement (in pseudocode) and test them.

The three checks (applied)

Technique	Pseudocode idea
Existence	IF field is empty THEN reject / re-prompt.
Type	IF value is not the expected type THEN reject.
Range	IF value < min OR value > max THEN reject.

Validation in a module

EXAMPLE

INPUT mark → WHILE mark < 0 OR mark > 100: OUTPUT “Enter 0–100”; INPUT mark → ENDWHILE. This is a range check with re-prompting.

Key definitions to memorise

Existence check	Confirms a required value has been entered (is not empty).
Type check	Confirms a value is of the expected data type.
Range check	Confirms a value lies within an allowed minimum and maximum.

Exam technique

EXAM TIP

- When asked to validate a field, pick the correct check(s) and show re-prompting in pseudocode.
- Remember validation ensures data is reasonable, not necessarily correct.

COMMON MISTAKES

- Implementing only one check when a field needs several (e.g. type AND range).
- Confusing validation with verification.

Quick revision checklist

- I can implement existence, type and range checks in pseudocode.
- I can choose the right check(s) for a given field.

Exam practice — questions & model answers

Q1. Write pseudocode that validates a percentage so only values 0–100 are accepted.

Write · 3 marks

Model answer

- INPUT percent (1)
- WHILE percent < 0 OR percent > 100: OUTPUT "Enter 0–100"; INPUT percent (1)
- ENDWHILE (1).

Q2. State which validation check ensures a quantity field is a whole number, not text.

State · 1 mark

Model answer

- A type check (1).