CERTLABZ CERTIFICATION BOARD

Certified Kotlin Programmer (CKTP)

Ten Sample Questions

These ten questions are written at the difficulty of the live exam. Six carry a figure, a data table, a configuration or a code listing; four are plain scenario questions, as on the live paper. Every one is a scenario a working Kotlin programmer would meet, and none of them appears in the live question bank.

The live exam is multistage adaptive: how you score on one stage selects the difficulty of the next, so no two candidates sit the same paper. It is a performance-based exam: each form can carry up to 5 to 12 performance-based questions alongside the multiple-choice questions, which means you build, sequence or complete something rather than only choosing from a list. Answers and full explanations follow each question here; the live exam does not disclose item-level answers.

Question 1 — Domain 1: Kotlin Fundamentals and Syntax — CONFIG

Sarah Miller writes the following two lines and tries to compile them.

```
val x = 5
x = 10
```

Listing 1.1 Reassigning a value.

What is the result?

A. Reassigns to 10
B. Compile error
C. x becomes 10
D. Prints 10

Correct answer: B
A val declares a read-only reference, so assigning to x a second time fails at compile time. To allow reassignment the developer would need to declare it with var instead.

Question 2 — Domain 2: Types, Null Safety and Collections — CONFIG

James Carter uses a safe call on a nullable reference.

```
val name: String? = null
val len = name?.length
```

Listing 2.1 A safe call on null.

What is the value of len?

A. Throws an NPE
B. Empty string
C. A zero value
D. Null

Correct answer: D
The safe call operator returns null when the receiver is null instead of throwing, so len holds null. A plain dot access here would raise a null pointer exception, which the safe call avoids.

Question 3

Domain 3: Control Flow and Functions

CONFIG

Olivia Davis assigns a grade with a when expression, using score of 85.

```
val grade = when (score) {
  in 90..100 -> "A"
  in 80..89  -> "B"
  else       -> "C"
}
```

Listing 3.1 A when expression.

What is grade?

A. A
B. C
C. B
D. Nothing

Correct answer: C
The value 85 falls in the range 80 to 89, so that branch matches and grade becomes B. A when used as an expression returns the value of the first matching branch.

Question 4

Domain 4: Object-Oriented and Functional Programming

DATA

Liam Anderson compares a regular class with a data class, with one cell missing.

Capability	Regular	Data
Generated equals	No	Yes
copy method	No	(to choose)
Destructuring	No	Yes
Manual toString	Yes	No

Table 4.1 Regular class against data class.

What does a data class provide for copy?

A Yes
B No
C Only with a var
D Only for a val

Correct answer: A
The compiler generates a copy method for a data class, so the missing cell is Yes. A regular class provides none of these members unless the developer writes them by hand.

Question 5

Domain 5: Coroutines and the Standard Library

CONFIG

Ava Thompson calls a suspend function directly from main and it will not compile.

```
suspend fun load() { }

fun main() {
  load()
}
```

Listing 5.1 Calling a suspend function.

Why does this fail?

A Missing async word
B Wrong return type
C Bad function name
D Needs a coroutine

Correct answer: D
A suspend function can only run inside a coroutine or another suspend function, so calling it from plain main fails. Wrapping the call in runBlocking or launching a coroutine gives it the context it needs.

Question 6

Domain 6: Interoperability, Testing and Best Practices

DATA

David Brown compares Kotlin with Java, with one cell missing.

Feature	Kotlin	Java
Checked exceptions	No	Yes
Null in the type system	Yes	No
Explicit primitives	(to choose)	Yes
Static members	Companion	static

Table 6.1 Kotlin against Java.

Does Kotlin use explicit primitive types?

A Yes
B No
C Only for Int
D Only in arrays

Correct answer: B
Kotlin has no separate primitive types in the language, so the missing cell is No. Types such as Int compile down to Java primitives where possible, but the developer always writes the class-style name.

Question 7 Domain 1: Kotlin Fundamentals and Syntax

Emma Wilson wants a value set once and never reassigned, with its type inferred from the literal. Which declaration fits?

A var count = 0
B val count: Int
C val count = 0
D const val c = 0

Correct answer: C
A val gives a read-only reference and the compiler infers Int from the literal 0, so no explicit type is needed. A var would allow reassignment, and const requires a compile-time constant at the top level or in an object.

Question 8 Domain 3: Control Flow and Functions

A function has several optional parameters with defaults, and the caller wants to set only the last one while skipping the middle defaults. What makes that clean?

A Named arguments
B More overloads
C A varargs list
D Reflection calls

Correct answer: A
Named arguments let the caller pass just the parameter by name and leave the rest at their defaults. Extra overloads would multiply the surface area, and varargs or reflection do not address skipping default values.

Question 9 Domain 4: Object-Oriented and Functional Programming

A developer wants to add a helper method to the String class without editing its source and without subclassing it. Which feature fits?

A. An abstract base class
B. A data class
C. A sealed subtype
D. Extension function

Correct answer: D
An extension function adds a method to an existing type without changing its source or subclassing it. The call site reads like a normal member call, while the other options require altering or extending the class hierarchy.

Question 10 Domain 5: Coroutines and the Standard Library

A developer runs a configuration block on an object and wants the same object returned so the calls can be chained. Which scope function fits?

A. let
B. apply
C. runCatching
D. map

Correct answer: B
The apply function runs the block with the object as receiver and returns that same object, which suits configuration chains. The let function returns the lambda result instead, and runCatching wraps a block in a Result.

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