

Kotlin Q&A

1. Kotlin was developed by?

- A. IBM
- B. NetBeans
- C. JetBrains
- D. Oracle

Ans : C

Explanation: Kotlin was developed by JetBrains.

2. Kotlin is a statically-typed programming language which runs on the?

- A. JCM
- B. JVM
- C. JPM
- D. JDM

Ans : B

Explanation: Kotlin is a statically-typed programming language which runs on the JVM. It can be compiled either using Java source code and LLVM compiler.

3. Why you should switch to Kotlin from Java?

- A. Kotlin language is quite simple compared to Java
- B. It reduces may redundancies in code as compared to Java
- C. Kotlin can offer some useful features which are not supported by Java
- D. All of the above

Ans : D

Explanation: Kotlin language is quite simple compared to Java. It reduces may redundancies in code as compared to Java. Kotlin can offer some useful features which are not supported by Java.

4. _____ feature allows removing the risk of occurrence of NullPointerException in real time.

- A. Null Risk
- B. Null Safety
- C. Null Pointer
- D. All of the above

Ans : B

Explanation: Null Safety feature allows removing the risk of occurrence of NullPointerException in real time. It is also possible to differentiate between nullable references and non-nullable references.

5. Kotlin is interoperable with Java because it uses JVM bytecode.

- A. Yes
- B. No
- C. Can be yes or no
- D. Can not say

Ans : A

Explanation: Yes, Kotlin is interoperable with Java because it uses JVM bytecode. Compiling it directly to bytecode helps to achieve faster compile time and makes no difference between Java and Kotlin for JVM.

6. How can you declare a variable in Kotlin?

- A. value my_var: Char
- B. value Char : my_var
- C. my_var: Char
- D. value my_var: Char

Ans : D

Explanation: You declare a variable in Kotlin value my_var: Char

7. How many types of constructors available in Kotlin?

- A. 1
- B. 2
- C. 3
- D. 4

Ans : B

Explanation: Two types of constructors available in Kotlin are: Primary constructor and Secondary constructor

8. Which of the following is Use for reading contents of file to ByteArray?

- A. bufferedReader()
- B. readText()
- C. readBytes()
- D. readLines()

Ans : C

Explanation: readBytes() is the extension methods Kotlin provides to java.io.File which is used for reading contents of file to ByteArray.

9. What is the use of data class in Kotlin?

- A. extract the basic data types
- B. delete the basic data types
- C. present the basic data types
- D. holds the basic data types

Ans : D

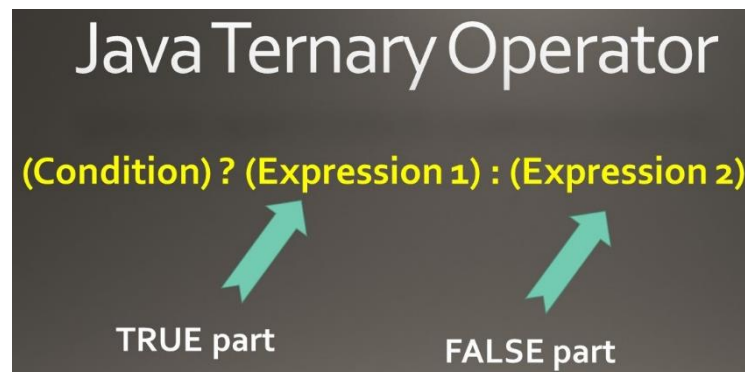
Explanation: Data class holds the basic data types. It does not contain any functionality.

10. Is there any Ternary Conditional Operator in Kotlin like in Java?

- A. TRUE
- B. FALSE
- C. Can be true or false
- D. Can not say

Ans : B

Explanation: False, there is no ternary conditional operator in Kotlin language



11. In Kotlin, _____ is used when you know what functionalities a class should have.

- A. exception class
- B. inheritance class
- C. abstraction class
- D. None of the above

Ans : C

Explanation: Abstraction is the most important concept of Objected Oriented Programming. In Kotlin, abstraction class is used when you know what functionalities a class should have. But you are not aware of how the functionality is implemented or if the functionality can be implemented using different methods.

12. What is the syntax for declaring a variable as volatile in Kotlin?

- A. `var x: Long? = null`
- B. `Volatile var x: Long?`
- C. `Volatile var x`
- D. `Volatile var x: Long? = null`

Ans : D

Explanation: The syntax for declaring a variable as volatile in Kotlin is `Volatile var x: Long? = null`

13. Which of the following is used to compare two strings in Kotlin?

- A. Using `==` operator
- B. Using `compareTo()` extension function
- C. Both A and B
- D. None of the above

Ans : C

Explanation: Both A and B is used to compare two strings in Kotlin.

14. Elvis Operator is used for handling null expectations in Kotlin.

- A. TRUE
- B. FALSE
- C. Can be true or false
- D. Can not say

Ans : A

Explanation: Elvis Operator is used for handling null expectations in Kotlin.

Elvis Operator \rightarrow `?:`

14. ELVIS OPERATOR

**Java**

```
public class ElvisOperatorJava {
    public static void main(String[] args) {
        //In Java, Elvis looks like 'Ternary'
        String a = null;
        String msg = (a != null) ? "get "+a.length() : "null";
        System.out.println(msg);
    }
}
```

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**Kotlin**



```
fun main() {
    val a: String? = null
    val b = a?.length ?: 0
    println(b)
}
```

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15. _____ helps to iterate through a range.

- A. And operator
- B. Ranges operator
- C. Or operator
- D. Conditional operator

Ans : B

Explanation: Ranges operator helps to iterate through a range. Its operator form is (..)

16. Which file extension is used to save Kotlin files?

- A. .java
- B. .kot
- C. .kt
- D. .kotlin

Ans : C

Explanation: .kt or .kts extension is used to save Kotlin files.

17. All classes in Kotlin classes are by default?

- A. public
- B. sealed
- C. abstract
- D. final

Ans : D

Explanation: All classes are final in Kotlin classes are by default

18. Can we migrate code from Java to Kotlin?

- A. Yes
- B. No
- C. Can be yes or no
- D. Can not say

Ans : A

Explanation: Yes, JetBrains IDEA provides an inbuilt tool to migrate code from java to Kotlin.

19. What is an immutable variable?

- A. A variable that can be changed
- B. A variable used for string interpolation
- C. A variable that cannot change, read-only
- D. None of the above

Ans : C

Explanation: Immutable variable are a variable that cannot change, it is read-only.

20. Does Kotlin support primitive Datatypes?

- A. Yes
- B. No
- C. Can be yes or no
- D. Can not say

Ans : B

Explanation: No, Kotlin does not provide support for primitive Data types like in Java.

Kotlin MCQ Quiz

1) Kotlin is developed by?

- A. Google
- B. JetBrains
- C. Microsoft
- D. Adobe

2) Which of following is used to handle null exceptions in Kotlin?

- A. Range
- B. Sealed Class
- C. Elvis Operator
- D. Lambda function

3) Which file extension is used to save Kotlin files.

- A. .java
- B. .kot
- C. .kt or .kts
- D. .andriod

4) All classes in Kotlin classes are by default?

- A. public
- B. final
- C. sealed
- D. abstract

5) What is correct way to create an arraylist in Kotlin?

- A. `val map = hashMapOf(1 to "one", 2 to "two", 3 to "three")`
- B. `enum class Color {RED, GREEN, BLUE}`
- C. `val list = arrayListOf(1, 2, 3)`
- D. `val set = hashSetOf(1, 2, 3)`

6) What is an immutable variable?

- A. A variable that cannot change, read-only
- B. A variable that can be changed
- C. A variable used for string interpolation

7) Which of following targets currently not supported by Kotlin?

- A. LLVM
- B. .NET CLR
- C. Javascript

8) How to make a multi lined comment in Kotlin?

- A. `//`
- B. `/* */`
- C. `/ multi line comment /`

9) How do you get the length of a string in Kotlin?

- A. `str.length`
- B. `length(str)`
- C. `str.lengthOf`

10) Which of the followings constructors are available in Kotlin?

- A. Primary constructor
- B. Secondary constructor
- C. Both 1 & 2
- D. None of the above

11) Does Kotlin works only for Java?

- A. Yes
- B. No

12) Is Kotlin compatible with the Java programming language?

- A. Yes
- B. No

13) Which of the following extension methods are used in Kotlin?

- A. Read texts () & Headlines ()
- B. Buffer reader ()
- C. Read each line ()
- D. All of the above

14) There are two types of constructors in Kotlin which are-

- A. Primary & Secondary constructor
- B. Default & No-arg constructor
- C. Parameterized & constant Constructor
- D. None of the above

15) Which of the following is not the basic data types in Kotlin?

- A. Numbers
- B. Strings
- C. Arrays
- D. Lists

16) Can we execute Kotlin Code Without Jvm?

- A. Yes
- B. No

17) Which of following option is used to handle null exceptions in Kotlin?

- A. Range
- B. Elvis Operator
- C. Sealed Class
- D. Lambda function

18) Does Kotlin have the static keyword?

- A. Yes
- B. No

19) Is new a keyword in Kotlin?

- A. Yes
- B. No

20) Kotlin was developed under the license.

- A. Apache 1.0
- B. Apache 2.0
- C. Apache 1.1
- D. None of the above

Kotlin Multiple Choice Questions

1. Who developed Kotlin?

- (A) IBM
- (B) GOOGLE
- (C) JetBrains
- (D) Microsoft

2. Which extension is responsible to save Kotlin files?

- (A) kot
- (B) android
- (C) sre
- (D) .kt or .kts

3. How to do a multi-line comment in Kotlin language?

- (A) //
- (B) \\\

(C)/**/

(D) None of the above

4. Kotlin only works for supporting Java language?

(A) True

(B) False

5. The two types of constructors in Kotlin are?

(A) Primary and Secondary constructor

(B) First and the second constructor

(C) Constant and Parameterized constructor

(D) None of these

6. Does Kotlin use the "static" keyword ?

(A) Yes

(B) No

7. What handles null exceptions in Kotlin ?

(A) Sealed classes

(B) Lambda functions

(C) The Kotlin extension

(D) Elvis operator

8. The correct function to get the length of a string in Kotlin language is ??

(A) `str.length`

(B) `string(length)`

(C) `lengthof(str)`

(D) None of these

9. Kotlin language name came from the "Koltin Island" of Russia?

(A) True

(B) False

10. The function to print a line in Kotlin is?

(A) `Printline()`

(B) `println()`

(C) `print()`

(D) option (b) and (c)

11. Under which license Kotlin was developed?

(A) 1.1

(B) 1.5

(C) 2.0

(D) 2.1

12. In Kotlin, the default visibility modifier is?

(A) sealed

(B) public

(C) protected

(D) private

13. Does Kotlin support OOPS and Procedural Programming?

(A) Yes

(B) No

14. What defines a sealed class in Kotlin ?

(A) Its another name for an abstract class

(B) It represents restricted class hierarchies

(C) It is used in every Kotlin program

(D) None of above

15. The default behavior of classes in Kotlin is?

(A) All classes are protected

(B) All classes are sealed

(C) All classes are final

(D) All classes are public

16. Does Kotlin allow macros?

(A) False

(B) True

17. The functions in Kotlin can be divided into how many types?

(A) 5

(B) 4

(C) 3

(D) 2

18. The Kotlin language is backward-compatible?

(A) False

(B) True

19. What are the most important benefit/benefits of using Kotlin language?

(A) It is a functional language and based on Java Virtual Machine

(B) It is an expressive language that makes code readable and understandable.

(C) It is an expressive language that makes code readable and understandable

(D) All of the above

20. Which are the basic data types in Kotlin?

(A) Arrays and Booleans

(B) Characters

(C) Strings and Numbers

(D) All of these

21. Which of these features are available in Kotlin but not in the Java language?

- (A) Operator overloading
- (B) Coroutines and Null safety
- (C) Range expressions
- (D) All of the above**

22. The Kotlin code can be executed without JVM?

- (A) False
- (B) True**

23. Kotlin is really better than Java??

- (A) No, Java is better
- (B) Both have similar functionalities
- (C) Yes, Kotlin is really better**
- (D) Some features in Java are better than Kotlin

24. val short for Value, a constant which cannot be changed once assigned?

- (A) It can be changed but once only
- (B) It can be changed
- (C) val cannot be changed after its assigned**
- (D) Both (a) and (b)

KOTLIN Interview Questions for freshers experienced :-

1. What is Kotlin?

Kotlin is a free open source project licenced under Apache2.0, it is a statically-typed programming language which runs on the JVM. It can be compiled by Java source code or LLVM compiler.

2. Who is the developer of Kotlin?

Jetbrains is a software company which created kotlin. This company focuses mainly on tools that are specifically for project managers and software developers.

3. Why you should shift from Java to kotlin?

Ans: Kotlin is very simple compared to java, it minimises redundancies in code and offers many useful features that java doesn't support.

4. What are the features that kotlin support and java doesn't?

The following are the important features that kotlin supports over java:

- Operator Overloading
- Coroutines
- Null Safety
- Range expressions
- Companion Objects
- Smart casts

5. What are the programming types that Kotlin supports?

Kotlin supports two types of programming they are:

- OOPS
- Procedural Programming

6. List the number of constructors available in Kotlin?

Constructors are of two types they are:

1. Primary constructor
2. Secondary constructor.

7. How to handle null exceptions in Kotlin programming?

Null expectations in Kotlin can be handled using Elvis Operator.

8. How can data class be used in Kotlin?

Data class supports basic data types, it doesn't have any other functionality.

9. How do you export code from Java to Kotlin?

Ans: JetBrains software provides an inbuilt tool called jetbrain idea, it helps in exporting the code from java to kotlin.

10. How do you declare a variable in kotlin?

Declaration of a variable in kotlin differs from java, below is the format for that:

```
val s: String = "Hi"
```

```
var x = 5
```

11. Does Kotlin programming allow macros?

Kotlin developers are facing difficulties in including macros in the language, so offering support for macros in kotlin is not possible.

12. How do you declare ranges operator in kotlin?

Ranges operator is used to iterate through a range, the operator is of form (..), for example

```
for (i in 1..15)
```

```
print(i)
```

The above format will print the output as a range of numbers from 1 to 15.

13. Describe the use of extension function?

Extension function is useful in extending a class without having the need to inherit from the class.

14. Name the extension methods Kotlin provides to java.io.File?

Below listed are the extension methods that kotlin provides to java.io.file:

- **readText():** used for reading the content of a file.
- **forEachLine():** used for reading a file line by line in Kotlin
- **readLines():** Used for reading lines in file to List
- **bufferedReader():** Used for reading the contents of a file into BufferedReader
- **readBytes():** Used for reading contents of file to ByteArray

15. What is the difference between Const and Val?

Const is primarily for compile time initializations and val is used for runtime initializations.

16. List some of the key modifiers in kotlin?

Kotlin has a list of few key modifiers, they are:

1. public
2. private
3. protected
4. interval

17. How do you differentiate var and val in Kotlin?

A variable defined with var are mutable, it is formatted as

```
var a: Int=3
```

```
a *= a
```

A Variable defined with Val are immutable, it is formatted as:

```
val b: Int = 6
```

```
b*=b
```

18. Is kotlin strongly typed?

Kotlin is similar to java with equally strongly typed. Kotlin compiles down to pure Java byte code.

19. What is the purpose of creating kotlin?

Ans: Kotlin was created by a Czech company named after JetBrains and the actual purpose of creating it was to solve their internal development problems.

20. Which companies use kotlin?

Kotlin is used by major companies around the globe, here are some of them:

- Postmates
- Atlassian
- Evernote
- Corda
- Spring by pivotal
- Coursera
- Pinterest
- Uber.

21. What is the latest version of kotlin?

Currently kotlin is updated to version 1.3.30. This version has a bug fix and tooling update for 1.3. This release focuses mainly on KAPT performance, kotlin Native and improvements for IntelliJ IDEA.

22. How is kotlin integrated with Gradle?

With the release of Gradle 5.0, kotlin offers support for gradle. You can have a look at it here: [Gradle Kotlin DSL v1.0](#)

23. Name some of the features that have Kotlin but not in present in Java?

kotlin has many features that are not present in Java. The following are a few features:

- Null safety
- Operator overloading
- Extension functions
- Data classes etc

24. Why you should switch to Kotlin from Java?

Kotlin is the easiest language compared to Java as they reduce redundant code in an application. Kotlin offers new features that Java doesn't support.

25. What type of programming does Kotlin support?

Kotlin will support two kinds of programming listed below:

- Object-Oriented Programming similar to Java
- Procedural Programming

26. what is the use of extension functions in Kotlin?

Extension functions are used to extend the class without inheriting from the class.

27. What is the default visibility modifier and also list the different types of modifiers?

The default visibility modifier is public. The following are a few types of modifiers:

- internal
- public
- private
- protected

28. What is Kotlin's target platform? Is Java-kotlin interoperability possible?

The target platform for Kotlin is JVM. Java is 100% interoperable with Kotlin because on compilation both produce the same bytecode. Therefore Java code can be called from Kotlin and the reverse is also possible.

29. How to declare a Kotlin variable?

Ans: In the Kotlin the variable declaration:

```
Val s: String = "Hello world!!"
```

```
var p = 15
```

30. What is the difference between Val and var declaration?

Val is similar to final modifiers in Java they can't be changed. Var can be reassigned but the data type cannot be changed. An example is shown below:

```
Val y: string = "hi"
```

```
Var x = 2
```

31. How to convert a String to an Integer?

toInt() is the method used to convert string to an integer. The following is an example:

```
fun main(args: Array<String>) {
```

```
    Val s: String = "Hi"
```

```
    var x = 5
```

```
    x = "8".toInt()
```

```
}
```

32. Is it possible to migrate the code from Java to Kotlin?

Yes, it is possible to migrate the code from Java to Kotlin. JetBrains IDE is required to perform this action as it facilitates the conversion.

33. What are the different types of constructors in Kotlin?

There are two types of constructors in Kotlin namely:

- Primary constructor
- Secondary constructor

Primary constructor: In this type of constructors class header is declared after the class name.

Secondary constructor: These type of constructors are declared inside the body.

34. Does Kotlin support primitive Data types?

No, Kotlin doesn't support primitive Data types as in Java

35. Mention the structural expressions in Kotlin?

The following are the three structural expressions in Kotlin.

Return: It returns value from the functions by default.

Break: terminates the loop condition.

Continue: precedes you to the next enclosing loop.

36. What are the data classes in Kotlin? How are they defined?

In kotlin, we create a class to store huge data, called data class. To create a data class you need to add a keyword called "data" on the class. The following is an example:

```
data class Book(var name: String, var authorName: String)

fun main(args: Array<String>)
{
    Val book = Book("One night at the call center", "Chetan Bhagat")
}
```

37. what operator is used to handle null exceptions in Kotlin?

Elvis Operator is used for handling null expectations in Kotlin.

38. What are High-Level Functions in Kotlin?

Functions that accept another function are called high order functions. Kotlin regards its functions as citizens of first class and passes the variables to other function.

39. What are Coroutines?

Coroutine is a light-weight thread that doesn't require any context switching on the processor and will not map on native threads. This is the reason why they are fast in processing the requests.

40. How to create static methods in Kotlin?

There is no static method in Kotlin but, to create a static method we use a keyword called object. The following is an example to create a static method:

```
class kotlin {

    companion object {

        fun x() : Int = 45

    }

}
```

41. What are the advantages and disadvantages of Kotlin?

Advantages	Disadvantages
Kotlin is similar to Java and hence it is easy to learn	Kotlin doesn't provide static modifiers and hence cause problems to the Java developer
Can be used in any applications used in any device such as the desktop, Web Server and mobile phones	In Kotlin functions can be declared and called in multiple places and so they might be a sort of confusion
It is a functional language based on JVM hence it helps in optimizing the code	