

## Wipro - Programming questions - Feb 2024

1. What will be the output of below code

```
print(2)
```

```
DispatchQueue.main.sync {  
    print(3)  
}
```

```
print(4)
```

2. What will be the output of below code

```
var a = 6  
var b = 9
```

```
let printSum: (_ a: Int, _ b: Int) -> () = { a,b in  
    print(a + b)  
}  
a = 3  
b = 3  
printSum(a,b))
```

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3. What will be the output of below code

```
var A = Coordinate(x : 10, y : 20)  
var B = Coordinate(x : 10, y : 20)
```

```
if A == B {  
    print("both are equal")  
}  
else {  
    print("both are not equal")  
}
```

4. How would you find the sum of the squares of even numbers in an array using higher-order functions only?
5. Write a program to remove duplicate from sorted array, maintain order
6. Write a program to remove duplicate from unsorted array , maintain order.

### Objective Questions

1. What is a Bundle in iOS?
  1. It is a Class
  2. It is Used to Send Data
  3. It is a Folder with .app extension
  4. None of the above
2. What is the problem in the below code?

```
struct Struct1 {  
    var rollno: Int  
    func increment() {  
        rollno += 1  
    }  
}
```

1. `increment()` method should be marked as `mutating` as it is changing the struct's own variable
2. `increment()` method cannot change the struct's own variable value
3. Struct definition is wrong; `struct` keyword should start with a capital letter
4. Struct is missing its initializer

3. Which statement is true about the main thread?

1. The Main Thread is responsible for executing time-consuming tasks to avoid blocking the UI.

2. All UI updates and user interactions must happen on the Main Thread.

3. Background tasks can be performed directly on the Main Thread without any impact on UI responsiveness.

4. The Main Thread is automatically created and managed by the operating system and cannot be accessed directly.

4. What are collection types or value types in Swift?

1. Array and Library

2. Dictionary and Array

3. Dictionary and Library

4. Library, Dictionary, and Array

5. Which statement is true about memory management in Swift?

1. iOS uses Automatic Reference Counting (ARC) to manage memory automatically.

2. Manual memory management is required in iOS to handle memory deallocation.

3. Memory management is handled by the operating system, and developers have no control over it.

4. iOS uses garbage collection for memory management, similar to other programming languages.

6. What is the hierarchy of events?

1. Regular Expression

2. Dictionary

3. Responder Chain

4. None of the above

7. What is the difference between struct and class in Swift?
1. A class is a reference type, and a struct is a value type.
  2. A class can inherit from another class, and a struct can't.
  3. A class has a default initializer, and a struct doesn't.
  4. A class is used for storing data, and a struct is used for defining behavior.
8. What is the difference between `let` and `var` in Swift?
1. `let` is used for constants, and `var` is used for variables.
  2. `let` is used for variables, and `var` is used for constants.
  3. `let` is used for defining functions, and `var` is used for defining properties.
  4. There is no difference between `let` and `var` in Swift.
9. Choose a Control Flow Statement or Control Transfer Statement or Control Break Statement:
1. `break`
  2. `continue`
  3. `fallthrough`
  4. All of the above
10. What will you choose to return multiple values from a function?
1. Tuple
  2. Array
  3. Both 1 & 2
  4. None of the above
11. Which one is not persistent storage in iOS?
1. UserDefaults
  2. SQLite
  3. Core Data
  4. HTTP Cookies

12. How to convert a string to uppercase in Swift?

1. ``string.uppercased()``
2. ``string.upper()``
3. ``string.uppercase()``
4. ``string.toUppercase()``

13. What is an escaping closure?

1. A closure that captures and stores references to any constants and variables from the context in which it is defined.
2. A closure that can be passed as an argument to another function and executed asynchronously.
3. A closure that is guaranteed to execute immediately when it is called.
4. A closure that is only executed if a certain condition is met.

14. How to break the retain cycle or cyclic retain dependency in the code below?

```
class SomeClass1 {  
    var someClass2: SomeClass2  
    init(someClass2: SomeClass2) {  
        self.someClass2 = someClass2  
    }  
}
```

```
class SomeClass2 {  
    var someClass1: SomeClass1  
    init(someClass1: SomeClass1) {  
        self.someClass1 = someClass1  
    }  
}
```

1. Weak reference: ``weak var someClass2: SomeClass2!``
2. Unowned reference: ``unowned let someClass1: SomeClass1``
3. Both of the given options
4. None of the given options

15. What is not a value type in Swift?

1. Double
2. Character
3. Enum
4. Class

16. Which statement is true about weak vs. strong references?

1. A weak reference does not keep a reference count of an object, while a strong reference does.
2. A weak reference can be nil, while a strong reference cannot.
3. A weak reference is used to avoid retain cycles, while a strong reference is used to keep an object alive.
4. All of the above

17. App is in the foreground but not receiving any events. Which state is the app in?

1. Background State
2. Inactive State
3. Suspended State
4. Active State

18. What will be the output of the code below?

```
let words = ["one", "two", "three", "four", "five",  
"six", "seven", "eight", "nine", "ten"]  
print(words[5..  
10])
```

1. `nil`
2. `["one", "two", "three", "four", "five"]`
3. `["six", "seven", "eight", "nine", "ten"]`
4. `["five", "six", "seven", "eight", "nine"]`