# **Litmus7 - May 2024**

## **Personal and General iOS Development**

- 1. Could you please introduce yourself?
- 2. What is the latest version of Xcode you have worked with?
- 3. Which Swift version are you currently working with?
- 4. What new features have been added in the latest Swift versions?

#### **Swift Language Concepts**

- 5. Why is Swift called a protocol-oriented language?
- 6. What is the difference between protocol and inheritance in Swift?
- 7. What is the difference between value types and reference types in Swift?
- 8. What is the benefit of the `final` keyword in Swift?
- 9. What is static dispatch versus dynamic dispatch in Swift?
- 10. What is dynamic dispatch in detail?
- 11. What is an inline function and how does it differ from other functions?
- 12. What is 'typealias' in Swift?
- 13. What are the different access specifiers in Swift?
- 14. What is the difference between extensions and inheritance in Swift?
- 15. Why can't we have stored properties in extensions in Swift?
- 16. Why can't we declare a `let` property in a protocol in Swift?

### **Memory Management and Thread Safety**

- 17. What is the difference between memory management of reference types and value types in Swift?
- 18. What is copy-on-write in Swift?

- 19. How can you make a class thread-safe in Swift?
- 20. What is a race condition?

## **Concurrency and Async Operations**

- 21. What are the latest advancements in concurrency?
- 22. What are the benefits of `async`/ await` over the `Result` type?
- 23. What is the 'Result' enum in Swift?
- 24. What is an actor in Swift?
- 25. How is an actor different from a class in Swift?
- 26. What is a `DispatchWorkItem`?

### **Higher-Order Functions**

- 27. What are higher-order functions in Swift?
- 28. What are the benefits of higher-order functions?

### **Architecture and Design Patterns**

- 29. What architecture do you follow in your development?
- 30. Which architecture did you work with in your last project?
- 31. What is the Liskov Substitution Principle?
- 32. What is the Dependency Inversion Principle?
- 33. Do you implement the SOLID principles?
- 34. What design patterns have you worked with?

#### **Notifications and Localization**

- 35. How does Apple Push Notification Service (APNs) work, and have you worked on notifications?
- 36. How can you add changes to your app for one country but not another, such as for alpha or beta testing?