

**Q1. What is the primary purpose of Inversion of Control (IoC) in Spring?**

- A) To manually create and manage objects
- B) To delegate object creation and lifecycle management to the framework
- C) To improve database performance
- D) To replace Java annotations

**Q2. Which of the following is NOT a type of Dependency Injection in Spring?**

- A) Constructor Injection
- B) Setter Injection
- C) Field Injection
- D) Method Overloading Injection

**Q3. Which module is NOT part of the Spring Framework?**

- A) Spring Core (IoC Container)
- B) Spring MVC
- C) Spring Boot
- D) Spring Data

**Q4. What is the philosophy behind Spring Boot?**

- A) Manual configuration for every component
- B) Convention over Configuration
- C) Tight coupling between components
- D) No dependency management

**5. Dependency Management with Maven**

**Q5. Which file is used to define dependencies in a Maven-based Spring Boot project?**

- A) build.gradle
- B) pom.xml
- C) package.json
- D) settings.xml

**Q6. Which of the following is NOT a feature of Spring Initializr?**

- A) Generates a ready-to-run Spring Boot project
- B) Allows selecting dependencies (e.g., Spring Web, JPA)
- C) Requires manual XML configuration
- D) Supports Maven & Gradle builds

**Q7. Which bean scope creates a new instance every time it is requested?**

- A) Singleton
- B) Prototype
- C) Request
- D) Session

**Q8. Which annotation is used for exception translation in database operations?**

- A) `@Service`
- B) `@Component`
- C) `@Repository`
- D) `@Autowired`

## **9. Loose Coupling & Tight Coupling**

**Q9. Which principle does Dependency Injection promote?**

- A) Tight Coupling
- B) Loose Coupling
- C) No Coupling
- D) Hardcoding Dependencies

## **10. Spring Boot Auto-configuration**

**Q10. What triggers Spring Boot auto-configuration?**

- A) Manual XML configuration
- B) Presence of specific dependencies in the classpath
- C) Using `@Autowired` on all fields
- D) Avoiding `@SpringBootApplication`

**Q11. Which annotation is used to define a bean in a Spring configuration class?**

- A) @Component
- B) @Service
- C) @Bean
- D) @Repository

**Q12. What does @SpringBootApplication combine?**

- A) @Component, @Service, @Repository
- B) @Configuration, @EnableAutoConfiguration, @ComponentScan
- C) @Autowired, @Bean, @Scope
- D) @Controller, @RestController, @Service

**Q13. Which class simplifies JDBC operations in Spring?**

- A) JdbcTemplate
- B) EntityManager
- C) HibernateTemplate
- D) DataSource

**Q14. Which logging framework is used by default in Spring Boot?**

- A) Log4j
- B) Logback
- C) Java Util Logging
- D) SLF4J with Logback

**Q15. Which is the recommended way to use @Autowired?**

- A) Field Injection
- B) Setter Injection
- C) Constructor Injection
- D) Method Overloading