

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