<u>Write short answers to the following questions.</u>

1. <u>What is Spring?</u>

   Spring is a popular open-source framework for building enterprise-level Java applications. It provides comprehensive infrastructure support for developing Java applications

2. <u>What is Spring Boot?</u>

   Spring Boot is an open-source project within the Spring ecosystem that simplifies the development, configuration, and deployment of Spring-based applications.

3. <u>What is the relation between Spring platform and Spring Boot?</u>

   Spring Boot is a part of the broader Spring platform and complements the core Spring Framework and other Spring projects by providing tools and conventions to simplify the development process for Spring-based applications

4. <u>What is the relation between Spring platform and Spring framework?</u>

   The Spring Framework is the core component of the Spring platform, providing the foundation for building Java applications

5. What is Dependency Injection and how is it done in the Spring platform/framework?

   Dependency Injection (DI) is a design pattern where dependencies of a class are provided from the outside rather than created within the class itself, promoting loose coupling and easier testing.

   In the Spring framework, Dependency Injection is achieved through annotations like **@Autowired**, XML configuration, or through Java configuration

6. What is Inversion of Control (IoC) and how is it related to Spring?

   Inversion of Control (IoC) is a design principle where the control over object creation and lifecycle management is shifted from the class itself to an external entity, promoting loose coupling and modularization in software systems.

   In the Spring framework, Inversion of Control (IoC) is implemented through Dependency Injection (DI)