

1. What is the primary difference between @Controller and @RestController in Spring MVC?

- A) @Controller returns view names, while @RestController returns data directly in response body
- B) @Controller only supports GET requests, while @RestController supports all HTTP methods
- C) @RestController cannot return HTML views
- D) Both A and C

Answer: D

2. Which annotation combination makes a @Controller class behave like a @RestController?

- A) @Controller + @ResponseBody on each method
- B) @Controller + @RequestBody
- C) @Controller + @Component
- D) @Controller + @Service

Answer: A

3. What is the main purpose of JdbcTemplate in Spring Boot?

- A) To automatically generate SQL queries
- B) To simplify JDBC operations and reduce boilerplate code
- C) To replace Hibernate and JPA
- D) To manage database connections only

Answer: B

4. Which HTTP method is mapped by @GetMapping annotation?

- A) POST
- B) GET
- C) PUT
- D) All HTTP methods

Answer: B

5. In Spring MVC, what does the "Model" component typically contain?

- A) Database connection information
- B) Business logic
- C) Data to be displayed in the view
- D) HTTP request parameters

Answer: C

6. How would you inject a JdbcTemplate into a Spring Boot repository class?

- A) Using @Inject annotation
- B) Using @Autowired on constructor or field

- C) Using @Resource annotation
- D) All of the above

Answer: D (All are valid, though @Autowired is most common)

7. Which of the following correctly shows a @RestController method using JdbcTemplate?

A)

```
@GetMapping("/users")
public List<User> getUsers() {
    return jdbcTemplate.execute("SELECT * FROM users");
}
```

B)

```
@GetMapping("/users")
public List<User> getUsers() {
    return jdbcTemplate.query("SELECT * FROM users", new BeanPropertyRowMapper<>(User.class));
}
```

C)

```
@PostMapping("/users")
public void getUsers() {
    jdbcTemplate.update("SELECT * FROM users");
}
```

D)

```
@GetMapping("/users")
public String getUsers() {
    return jdbcTemplate.queryForString("SELECT * FROM users");
}
```

Answer: B

8. What is the role of the "DispatcherServlet" in Spring MVC?

- A) Renders HTML views
- B) Acts as a front controller, routing requests to appropriate handlers
- C) Manages database transactions
- D) Configures application properties

Answer: B

9. In a `@Controller` class, how do you add data to the model for a view?

```
@GetMapping("/products")
public String getProducts(_____ model) {
    model.addAttribute("products", productService.findAll());
    return "products";
}
```

- A) `HttpServletRequest`
- B) `Model`
- C) `ModelMap`
- D) Both B and C

Answer: D

10. Which of these correctly demonstrates a complete Spring MVC flow using `@Controller` and `JdbcTemplate`?

- A) Browser → `@RestController` → `JdbcTemplate` → View (HTML)
- B) Browser → `@Controller` → Service → `JdbcTemplate` → Database → Model → View (HTML)
- C) Browser → `@Controller` → `JdbcTemplate` → Database → JSON Response
- D) Browser → `@GetMapping` → `JdbcTemplate` → View (HTML)

Answer: B

11. What is the difference between `query()` and `queryForObject()` methods in `JdbcTemplate`?

- A) `query()` returns multiple rows, `queryForObject()` returns a single row
- B) `query()` returns a List, `queryForObject()` returns a single object
- C) `query()` is for SELECT statements, `queryForObject()` is for INSERT statements
- D) Both A and B