1. What Design Pattern does the Spring DispatcherServlet implement? 1 / 1 point

   ⦿ FrontController

   ◯ Model

   ◯ Proxy

   ◯ Model View Controller

   > ✓ **Correct**
   > Correct; AM Front controller provides a single entry point into an application that all requests travel through and is responsible for dispatching to destinations

2. What are Spring Boot Starter dependencies? Select all that apply. 2 / 2 points

   ☐ They build and define the starter project structure for a Spring Boot Application

   ☑ Application dependencies that "drag" in the actual jars for the Spring Boot Application

   > ✓ **Correct**
   > True; their entry in the pom drag in a multitude of jars that provide the back bone of the Spring Boot Application dependencies

   ☑ They contain no code of their own but are virtual dependencies

   > ✓ **Correct**
   > True; they are virtual packages whose role is to get the actual dependencies

   ☐ The core dependencies that provide the basis of a Spring Boot Application

3. Under which directory would you find configuration files in a Spring Boot Project using all default configurations? 1 / 1 point

   ◯ src/main/resources/template

   ⦿ src/main/resources/config

   ◯ src/main/resources/js

   ◯ src/main/resources/static

   > ✓ **Correct**
   > True, although such properties can lie directly under src/main/resources frequently they are found under a config sub directory

4. What Annotations does the single annotation @SpringBootApplication on a SpringBootApplication Runnable class replace to automatically configure a WebApplicationContext including the DispatcherServlet and auto scanning for Controllers? Choose the three that apply. 3 / 3 points

   ☑ @Configuration

   > ✓ **Correct**
   > True; the Application class is also a Spring configuration class that can define Spring Managed Beans or be annotated to scan for Spring Annotated beans

   ☑ @ComponentScan

   > ✓ **Correct**
   > True; the DispatcherServlet will require a means to scan for Controller, in the current and sub packages were HandlerMappings will be built correlating Urls to beans annotated with @RestControler or @Controller and their respective @RequestMapping

   ☐ @Autowired

   ☑ @EnableAutoConfiguration

   > ✓ **Correct**
   > True; this annotation triggers the initialization of a WebApplicationContext

5. Why are @ConfigurationProperties annotated Java classes preferred over @Value("${...}") when it comes to injecting items in from the Spring Environment? Select all that apply.

4 / 4 points

☑ Just injecting into a Controller as a Java Dependency i.e. the class and not a Spring annotation dependency

> ✓ **Correct**
> True; the Configuration class is just Java no Spring dependency

☑ Can populate complex objects

> ✓ **Correct**
> True; complex object types such as list can be populated

☑ Validated

> ✓ **Correct**
> True; JSR303 validators can be applied to fail the container immediately

☑ Type Safe

> ✓ **Correct**
> True; You have a compiled Java Class, checked for data injection into properties at Spring Container start up time

6. What Annotation must you place upon a class to be picked up by Spring Boot package based component scan to be part of the DispatcherServlet HandlerMappings matching Url to method in such a class?

1 / 1 point

◉ @RestController

○ @Configuration

○ @GetMapping

○ @SpringBootApplication

> ✓ **Correct**
> True this annotation marks the class as a Controller and it will be part of the Url Mappings. @RequestMapping is usually also placed on the class to map the entire class to a Url, but this can be done with @GetMapping and a path attribute at the method level

7. What Annotation must you place upon a method in a RestController class to be tied to an HTTP GET?

1 / 1 point

○ @Configuration

○ @RestController

◉ @GetMapping

○ @SpringBootApplication

> ✓ **Correct**
> True this would mean the method would only be tied to HTTP Get where the Url would be from the Class @RequestMapping

8. What Annotations does the @SpringBootApplicaiotn annotation replace?

3 / 3 points

- ☑ @EnableAutoConfiguration

  > ✓ **Correct**
  > True This annotation triggers the launch of the DispatcherServlet WebApplicationContext

- ☑ @SpringBootConfiguration

  > ✓ **Correct**
  > True This annotation marks the class itself as a java Configuration class where we can create Spring Bean Definitions

- ☑ @ComponentScan

  > ✓ **Correct**
  > True This annotation triggers the component scan for Controllers and RestControllers

- ☐ @RestController

9. What notation format can we use to define parent child relationships in configuration files to populate the Spring Environment Object?

1 / 1 point

- ○ Properties i.e. key value pairs
- ◉ Yaml
- ○ Java
- ○ text

  > ✓ **Correct**
  > True Yaml defines nested hierarchical properties

10. Spring MVC Uses WHAT to invoke RestController Methods and convert request parameters and response payloads through provided Converters?

1 / 1 point

- ○ ViewResolvers
- ○ HandlerMappings
- ◉ HandlerAdapters
- ○ ExceptionHandlers

  > ✓ **Correct**
  > True this does indeed invoke mapped RestController methods and convert input parameters and output response types