http://www.skill-guru.com/test/86/core-spring-3.0-certification-mock-test-2

Core Spring 3.0 Certification Mock Test 2

Following on from the positive response to my previous mock I have created this 2nd one. As before all answers are fully referenced back to official Spring 3.0 documentation. All syllabus topics covered from the real exam: Container, Test, AOP, SpEL, Database, JMS, JMX, Web, MVC, Remoting, Dynamic Lang support etc.



Test: Core Spring 3.0 Certification Mock Test 2



	S		

<u>Database</u>

To use an embedded HSQL database in Spring, that runs a script called skillguru.sql, which steps could you use from the below?

	Answer

Use the "embedded-database" tag in the spring-jdbc namespace: <jdbc:embedded-database id="dataSource"> <jdbc:script location="classpath:skillguru.sql"></jdbc:script> </jdbc:embedded-database>
Use a programmatic approach as below, i.e. EmbeddedDatabaseBuilder builder = new EmbeddedDatabaseBuilder(); EmbeddedDatabase db = builder.setType(H2).addScript ("skillguru.sql").build(); // do stuff with the db (EmbeddedDatabase extends javax.sql.DataSource) db.shutdown()
Use the "embedded" tag in the spring-jdbc namespace: <jdbc:embedded id="dataSource"> <jdbc:script location="classpath:skillguru.sql"></jdbc:script> </jdbc:embedded>
Use a programmatic approach as below, i.e. EmbeddedDatabaseBuilder builder = new EmbeddedDatabaseBuilder(); EmbeddedDatabase db = builder.addScript ("skillguru.sql").build(); // do stuff with the db (EmbeddedDatabase extends javax.sql.DataSource) db.shutdown()

Question:2

Web MVC

The ${\tt @RequestMapping}\$ annotation may be used to map URIs to Java code in Spring MVC.

Which of the following 2 statements regarding this annotation are CORRECT?

Select Your Answer:

It may be applied only to a method and not a class.
It may be applied to a method and a class
You may define the http request method (GET or POST) as well as a cookie name to access this part of the http request.
You may define the http request method (GET or POST) but NOT any cookie details.

Question :3

Type Conversion

Spring 3.0 provides the PropertyEditor for performing thread-safe type conversion. This allows any Type to be converted to any other Type.

0	C TRUE	
0	C FALSE	

Remoting

Spring 3.0 provides support for RESTful services.

Which of the following statements regarding these features of the framework are TRUE?

- A RestTemplate is provided for accessing a RESTful service, which is analogous to a JdbcTemplate, JmsTemplate etc.
- A RestServiceExporter is provided for exporting a RESTful service, which is analogous to a HessianServiceExporter, RmiServiceExporter etc.
- 3. RestTemplate provides support for ALL of the http methods: i.e. GET and POST as well as DELETE, HEAD, OPTIONS and PUT.
- RestTemplate provides support for 2 of the 6 http methods: GET and POST only. You need to use a more tailored API, such as Jakarta Commons HttpClient, to gain full REST features.

0	1, 2, 3
0	1, 2, 4
0	1, 3
0	2, 3

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<u>AOP</u>

Load-time weaving (LTW) is the process of weaving AspectJ aspects into an application's class files as they are being loaded into the Java virtual machine (JVM).

Which of the following are ${\it MANDATORY}$ steps in integrating AspectJ LTW in to your application?

- Add the jars: spring-aop.jar, aspectjrt.jar and aspectjweaver.jar in to your classpath.
- 2. Create you Aspect class/es.
- 3. Create a META-INF/aop.xml that declares your aspect class/es.
- 4. Add <context:load-time-weaver/> in to your application's XML.

Select Your Answer:

0	1, 2, 3
0	1, 3, 4
0	2, 3, 4
0	1, 2, 3, 4

Question:6

SpEL

The expression language supports the Ant \$ syntax for expressing values in your application context XML file/s or annotations?

0	TRUE	
0	FALSE	

Ques	stion :7	<u>Transactions</u>
		The TransactionDefinition interface specifies Isolation, Propagation, Timeout, and Read-only status?
Selec	ct Your Answer :	
0	TRUE	
0	FALSE	
Ques	stion:8	<u>AOP</u>
		If some target code (that is matched to a pointcut expression) throws an exception - which of the following advices would NOT execute?
Selec	ct Your Answer :	
0	An advice using the	@After annotation (with a matching pointcut expression)
0	An advice using the @Before annotation (with a matching pointcut expression)	
0	An advice using the	@AfterReturning annotation (with a matching pointcut expression)
0	An advice using the	@AfterThrowing annotation (with a matching pointcut expression)

Question :9	<u>Database</u>
	The following methods
	queryForInt(args)
	•
	queryForList(args)
	<pre>getJdbc0perations()</pre>
	<pre>getNamedParameterJdbcOperations()</pre>
	getwamedrarameteroundcoperations()
	are ALL present on which of the following classes?
Select Your Answer :	
C SimpleJdbcTemplate	
C JdbcTemplate	
C NamedParameterJdb	cTemplate
C All of the above	

Resources - Which of the following statements regarding accessing low level resources using Spring are TRUE?

Sele	elect Your Answer:		
	This API provides su	pport for accessing files held on an FTP server.	
		java.net.URL API and its ability to access files held on a classpath, er a resource exists or not.	
	Spring's Resource in	terface contains the following methods also on java.io.File, i.e.	
	 boolean exists 	6()	
	boolean delete	e()	
	• File getAbso	oluteFile()	
boolean createNewFile()		teNewFile()	
		used extensively in Spring and wraps existing functionality where le, a UrlResource wraps a URL which is where the underlying work is	
Que	stion :11	Container & Test	
		Lifecycle callbacks enable developers to execute code at certain points in a bean's lifecycle. However, there is a small downside in that you can only implement callbacks by coupling your application code to Spring.	
		Is this statement TRUE or FALSE?	
Sele	ct Your Answer :		
0	TRUE		
0	FALSE		

<u>Database</u> -

Spring's LocalSessionFactoryBean supports the use of both traditional Hibernate mapping (hbm.xml) files AND javax.persistence (i.e. @Entity) annotated POJOs?

Select Your Answer:

C TRUE

C FALSE

Question:13

Container & Test

Spring 3.0 introduces more support for annotation based configuration. Consider the following configuration.

<bean id="springExamService"
class="com.skillguru.services.SpringExamServiceImpl"/>

What would be the equivalent annotated code?

Select Your Answer:

public class AppConfig {

@Bean public SpringExamService springExamService() {

return new SpringExamServiceImpI();
}

Container & Test

If a class has the following methods...

```
@PreDestroy public shutDown() {
    System.out.println("shutDown ");
}
public closeMe() {
    System.out.println("closeMe");
```

...and the bean is configured with... destroy-method="closeMe"

Assuming the container is configured to process annotations correctly - what would be the expected order of the log output?

Select Your Answer:

- C None a RuntimeException would be thrown as it is not legal to define more that one lifecycle destroy mechanism on a single bean
- C "closeMe" only. This is because if you define a destroy-method this takes precedence over any other destroying lifecycle mechanism.
- $^{\mbox{\scriptsize C}}$ "shutDown" then "closeMe" are printed.
- C "closeMe" then "shutDown" are printed.

Question:15

Remoting

Spring 3.0 provides support for exposing a bean as a JAX-WS service, via exporting it using the SimpleJaxWsServiceExporter.

This is a similar concept to using an RmiServiceExporter or a HessianServiceExporter.

- C TRUE
- FALSE

SpEL

Which of the following 2 statements regarding SpEL are true?

Select Your Answer	ver :
--------------------	-------

The use of @Value("#{ systemProperties['user.region'] }") will correctly locate the user.region from the system properties.
The use of @Value("#{ system['user.region'] }") will correctly locate the user.region from the system properties.
The @Value annotation (with an embedded SpEL expression) may only be set on fields.
The @Value annotation (with an embedded SpEL expression) may be set on to a field, setter method and on a parameter in a method that is annotated with @Autowired

Question:17

Transactions

Identify the correct statement below regarding annotation driven transactions.

Select Your Answer:

- C The presence of the @Transactional annotation is enough to activate the transactional behavior.
- Spring recommends that you annotate interfaces with the @Transactional annotation, as opposed to annotating concrete classes (and methods of concrete classes).
- In the config tag ... <tx:annotation-driven/> ... the optional "mode" attribute defaults to "aspectj". This weaves the classes with Spring's AspectJ transaction aspect, modifying the target class byte code to apply to any kind of method call.
- In the config tag ... <tx:annotation-driven/> ... the "proxy-target-class" attribute allows two types of proxy mode and only applies when the "mode" is in "proxy" mode and not "aspectj".

Question:18

<u>Database</u>

Which of the following statements is TRUE regarding batch processing?

- Both JdbcTemplate and SimpleJdbcTemplate offer this feature via their batchUpdate() methods.
- Spring advice to break out in to regular JDBC when batch processing as this feature is not supported in Spring.
- $^{\mbox{\scriptsize C}}$ Only JdbcTemplate offers this feature via its batchUpdate() method.
- You can achieve JdbcTemplate batch processing by implementing two methods of the interface, BatchPreparedStatementCreator, and passing this in as a second parameter in the batchUpdate method call.

		۱:1	

Container & Test

Which of the following annotations is ${\it NOT}$ component scanned by default?

Seled	ct Your Answer :			
0	@Repository			
0	@Service			
0	@Bean			
0	Your custom annota	ation that is itself annotated with @Component		
0	@Component			
Que	stion :20	Dynamic Language Support		
		The dynamic languages currently supported are:		
Sele	ct Your Answer :			
0	Groovy			
0	JRuby			
0	BeanShell			
0	All of the above			
Que	estion :21	Web MVC		
		Which of the following statements is FALSE regarding multipart handling / file uploading in forms in Spring?		
Sele	ect Your Answer :			
0	By default Spring o	does multi-part handling		
0	You enable Spring application's conte	multipart handling by adding a multipart resolver to the web xt.		
0	If you configure Co your classpath.	mmonsMultipartResolver, you need to add commons-fileupload.jar to		
0	When the Spring DispatcherServlet detects a multi-part request, it activates the resolver that has been declared in your context and hands over the request.			

AOP -

What is wrong with the following code excerpt that uses PCDs (pointcut definitions)?

```
@Pointcut("execution(public * *(..))")
private void anyPublicOperation() {}

@Pointcut("within(com.ikoko..*)")
private void inIkoko() {}

@Pointcut("anyPublicOperation() && inIkoko()")
private void examOperation() {}
```

- $^{\mbox{\scriptsize C}}$ In the final pointcut t is not legal to use the && operator within an expression.
- $^{\mbox{\scriptsize C}}$ $\,$ The 2nd pointcut has an erroneous two dots and should be a single dot
- $^{\mbox{\scriptsize C}}$. In the final point cut the expression refers to other pointcuts by name. This is not legal.
- C There is nothing wrong.

Question :23	<u>XML</u>
	Spring's OXM (Object XML mapping) APIs provide support for which of the following technologies?
	1.
	JAXB
	2.
	Castor
	3.
	XMLBeans
	4.
	J1BX
Select Your Answer :	
C None of the above	
C 1 only	
C 1 & 2 only	
C 1, 2 & 3 only	

C All of the above

Transactions

If a method is given a propagation type of NOT_SUPPORTED. What will happen in the event that the method is run within a transaction from the calling method?

Select Your Answer:

0	It throws an exception.
0	It supports the current transaction.
0	It executes within a nested transaction
0	It suspend the current transaction.

Question:25

Container & Test

In the following code excerpt...

// create and configure beans

ApplicationContext context = new ClassPathXmlApplicationContext(new String[] {"services.xml", "daos.xml"});

// retrieve configured instance

CustomerService service = (CustomerService)context.getBean
("customerService");

How has this approach been improved in Spring 3.0?

Select 2 answers.

- You no longer programmatically need to load an ApplicationContext it is done purely through configuration.
- A new overloaded constructor on ClassPathXmlApplicationContext that uses varargs reduces code and enables you to construct an instance like so... ApplicationContext context = new ClassPathXmlApplicationContext("services.xml", "daos.xml");
- A new overloaded getBean() method that takes a type reduces code and enables you to retrieve your bean like so... // retrieve configured instance CustomerService service = context.getBean("customerService", CustomerService .class);
- ClassPathXmlApplicationContext and FileSystemXmlApplicationContext have both been deprecated and replaced with a single simplified class that can utilise both approaches to load a container.

Container & Test

The @Configuration annotation is a new Java-centric way of configuring your Spring application. Which of the following statements regarding this annotation is FALSE?

loct	VOLUE	Answer:

Spring's @Configuration class support is intended to be a 100% complete replacement for Spring XML.				
You can "switch on" @Configuration annotations in your XML configuration with <context:annotation-config></context:annotation-config>				
Because @Configuration is meta-annotated with @Component, annotated classes are automatically candidates for component scanning.				
© @Configuration must be applied to a class only and not methods or fields.				
Question :27 EJB Study the four statements below				
0	You can "switch on" @Configuration annotations in your XML configuration with <context:annotation-config></context:annotation-config> Because @Configuration is meta-annotated with @Component, annotated classes are automatically candidates for component scanning. @Configuration must be applied to a class only and not methods or fields.			

1. Spring provides support for implementing EJBs

- $\begin{tabular}{ll} {\bf 2.} & {\bf Spring\ provides\ support\ for\ accessing\ EJBs} \\ \end{tabular}$
- 3. Spring provides support for EJB 2.x and EJB 3.x
- 4. Spring simplifies JNDI lookups.

Which of these are true ?

0	1, 2 & 3
0	1, 2 & 4
0	2, 3 & 4
0	1, 2, 3 & 4

	es			

AOP

The ProxyFactoryBean chooses to create one of either a JDK or CGLIB-based proxy for a particular target object (that is to be proxied).

Which of the following is NOT a consideration when choosing between them?

Select Your Answer:

C Whether performance is an issue
C Whether the target classes, or their methods, are declared as final
C Whether the target classes implement interfaces
C Whether you can modify the source code of the target classes

Question:29

<u>JMX</u>

Assemblers configure your application on the rules needed to decide which components are exported as managed resources. Which of the following is NOT a valid assembler in Spring 3.0?

Select Your Answer:

- MetadataMBeanInfoAssembler
- MethodNameBasedMBeanInfoAssembler
- C AttributeBasedMBeanInfoAssembler
- InterfaceBasedMBeanInfoAssembler

Question:30

<u>Email</u>

Which of the following steps is INVALID regarding the integration of Spring's email functionality in to your application?

- Add mail.jar (JavaMail) and activation.jar (JAF) in to your classpath.
- $^{\rm C}$ Define a JavaMailSenderImpl bean that takes the SMTP settings (host, authentication etc.)
- Define a MailTemplate bean which will be the API that simplifies usage to the underlying JavaMail API.

		<u>JMX</u>		
		Which core class in Spring's JMX framework is responsible for taking Spring beans and registering them with a JMX MBeanServer?		
Sele	ct Your Answer :			
0	JMXExporter			
0	MBeanExporter			
0	ManagedResource			
0	MBeanServerFactor	yBean		
Que	stion :32	Web MVC		
		Which of the following two options would be best practises if you require your controller to issue a redirect to the browser?		
Sele	ct Your Answer :			
	Just simply utilise t	he HttpServletResponse.sendRedirect() call.		
	Create and return a	n instance of Spring's RedirectView.		
	Return a view name	that is prefixed with "redirect:"		
	Simply call super.re	edirect() on the Spring BaseController that you extend		
Que	estion:33	<u>AOP</u>		
		With the following pointcut expression in mind		
		<pre>execution(* set*())</pre>		
		Which of the following methods would be matched?		
Sele	ect Your Answer :			
0	private void setFoo	(String bar)		
0	public void setBar(
0	public String setFo	o(int bar)		
0	public void set(Stri	ng foo, int bar)		
0	All of the above			

Container & Test

 ${\tt ReflectionTestUtils} \ \ is \ a \ useful \ Spring \ API \ for \ usage \ in \ unit \ and \ integration \ test \ methods$

What feature does this API provide?

Select Your Answer:

- C To be able to set a non-public field or invoke a non-public setter method when testing code.
- $^{\rm C}$ $\,$ A collection of assertions intended to simplify testing scenarios dealing with Spring Web MVC ModelAndView objects.
- $\ensuremath{^{\text{C}}}$ Provides support for dependency injection and initialization of test instances.
- Provides functionality of the Spring TestContext Framework to standard JUnit 4.5+ tests by means of the TestContextManager and associated support classes and annotations.

Question:35

General

Which of the following is NOT a new feature introduced in Spring 3.0?

- Spring Expression Language
- C SimpleJdbcTemplate updated to support Java 5.0 features
- C Early support for Java EE6
- C REST supported enhanced
- C Embedded database support

Container & Test

MockTest has an initialize() method, but no init() method. SpringMockTest does not have an init() method. ...and they are configured like so... <beans default-init-method="init"> <bean id="mockTest" class="com.foo.MockTest" init-</pre> method="initialize" /> <bean id="springMockTest" class="com.foo.SpringMockTest" /> </beans> What would you expect to happen at runtime? Select Your Answer: An exception is thrown because the beans definition requires an init() method which is absent from both MockTest and SpringMockTest. An exception is thrown because the MockTest bean defines its own init-method which is not legal when also defining a top-level "default-init-method" An exception is thrown because the "springMockTest" does not have an init() method and this is required by the top-level "default-init-method" beans definition. "mockTest" is okay because it provides the container with an alternative lifecycle mechanism via its "init-method" attribute

Question:37

None of the above.

Database

Spring's exception translation mechanism provides a consistent and runtime exception hierarchy to the client, abstracted away from the underlying data-access technology.

Select Your Answer:

C FALSE

JMX

```
What is wrong with the following annotated code?
public class Customer {
  @ManagedResource
  private String name;
  @ManagedAttribute
  public void setName(String name) {
    this.name = name;
  public String getName() {
   return name;
  @ManagedOperation
  public String getNameFormatted() {
    return name.toUpperCase();
  }
```

Select Your Answer:

 $^{\mbox{\scriptsize C}}$ $\,$ @ManagedResource should be applied to a class only

}

- $^{\mbox{\scriptsize C}}$ _@ManagedAttribute should be on a property / field only not on a setter.
- C @ManagedOperation should not be applied to this method as it is not a JavaBean style getter or setter.

Ques	tion:39	Web MVC -	
		In Spring's form tag library which of the following tags are valid?	
		1. input and inputs	
		2. checkbox and checkboxes	
		3. radiobutton and radiobuttons	
		4. redirect	
Selec	t Your Answer :		
0	1, 2 & 3 only		
0	2 & 3 only		
0	1 & 4 only		
0	All of the above		
Ques	tion :40	AOP	
		Which of the following 2 statements are true regarding the decisions you might need to make regarding the use of aspect oriented programming?	
Selec	t Your Answer :		
	Business logic that cousing aspects.	ontains transactional code should be considered as a candidate for	
	AspectJ is simpler than using Spring AOP.		
	If you have chosen to	use Spring AOP, then you have a choice of @AspectJ or XML style.	
	@AspectJ has two disadvantages: it does not encapsulate the implementation of the requirement in a single place. Secondly, @AspectJ is slightly more limited in what it can express than the XML style.		

Question :41		Container & Test						
		The default bean scope in Spring is 'singleton' ?						
Sele	ect Your Answer :							
0	TRUE							
0	FALSE							
Que	stion:42	Container & Test						
		Which of the 2 following are suitable approaches for unit testing using Spring.						
Sele	ct Your Answer :							
	Use ModelAndViev	Assert to unit test your Spring MYC controllers.						
	Use the @Context(Configuration annotation to define your application context files.						
	Make your test cla	ss extend AbstractDependencyInjectionSpringContextTests						
	You can use numerous classes from the org.springframework.mock.web package or even dynamic mock objects such as EasyMock or MockObjects, to provide mocked collaborators to the classes you wish to test.							
Que	stion :43	<u>JMS</u>						
		Which of the following statement is TRUE regarding the JmsTemplate?						
Sele	ct Your Answer :							
О		gured using "prototype" scope to ensure one instance is created every avoid thread issues.						
0	The JmsTemplate	requires a reference to a ConnectionFactory.						
0	JmsTemplate supp	ports the receiving of asynchronous message.						
0	JmsTemplate fully	supports conversion between Java objects and JMS messages.						

Container & Test

Which of the following statements regarding container related annotations are TRUE?

	Answer:

© @Inject has been largely superseded by the Java language @Autowired annotation

© @Autowired marks a method (typically a JavaBean setter method) as being 'required': that is, the setter method must be configured to be dependency-injected with a value.

© As of Spring 3.0 it is no longer necessary to define a BeanPostProcessor in your XML configuration to "switch on" annotations such as @Required and @Autowired.

Question:45

Container & Test

JSR 330's @Inject annotation can be used in place of Spring's @Autowired annotation in which scenarios below?

Select Your Answer:

C When annotating a field
C When annotating a JavaBean style setter method.
C When annotating a regular public method with multiple args.
C All of the above.

Remoting

You have been tasked with exposing your hibernate application as a remote service. You will also be creating the client. Just as when you thought your lucky streak might run out - you have been blessed with a co-operative networks administrator who is willing to open up any ports that you need.

From the following technologies below which would you consider as a viable option?

1	. 5	pr	ing	S	H	IT	T	P	i	n	V0	k	e	ĺ
---	-----	----	-----	---	---	----	---	---	---	---	----	---	---	---

- 2. RMI
- 3. Hessian
- 4. Burlap

_	
0	1 & 2
0	3 & 4
0	All four are viable technologies to use
0	None of the above are suitable.

Container & Test

	Consider the following two configuration fragments whereby the property 'answer' is of type <code>java.lang.String</code> :
	<pre><bean class="skillGuruBean1"></bean></pre>
	<pre><pre><pre><pre>property name="answer" value=""/></pre></pre></pre></pre>
	<pre><bean class="skillGuruBean2"></bean></pre>
	<pre><pre><pre>property name="answer"><null></null></pre></pre></pre>
	Consider the following statements regarding the possible values of 'answer' in each bean
	1. skillGuruBean1.answer is a blank String or ""
	2. skillGuruBean1.answer is null
	3. skillGuruBean2.answer is a blank String or ""
	4. skillGuruBean2.answer is null
	5. skillGuruBean2 throws a RuntimeException upon initialization as there is no such tag as <null></null>
	Which of the above statements are CORRECT?
elect Your Answer :	
C 1 & 3	
C 1 & 4	
C 1 & 5	
C 284	
C 2 ft 5	

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Database

The framework reference documentation recommends that ${\tt JdbcTemplate}$ is scoped as a "prototype" bean. This prevents thread concurrency issues when reading / writing to the database.

	∆nswer	

0	TRUE	
0	FALSE	

Question:49

<u>JCA</u>

A CCI, or Common Client Interface, is an interface that an application can use to interact with an EIS (Enterpise Information System).

Consider the following statements regarding Spring's support for JCA...

- 1. The base resource to use JCA CCI is the ConnectionFactory interface.
- 2. You may directly instantiate a ConnectionFactory.
- 3. The ${\tt CciTemplate}$ simplifies the use of CCI since it handles the creation and release of resources.
- 4. It is not possible to use global transactions when a connector is used in non-managed mode.

Which of these statements are true?

0	1, 2, 3
0	1, 2, 4
0	1, 3, 4
0	All four statements are true

Web MVC

Consider the following web.xml fragment...

<servlet>

<servlet-name>ikoko</servlet-name>

<servlet-class> <THE CONTROLLER SERVLET> </servlet-class>

<load-on-startup>1</load-on-startup>

</servlet>

<servlet-mapping>

<servlet-name>ikoko</servlet-name>

<url-pattern>/skillguru/*</url-pattern>

</servlet-mapping>

In order to complete configuration of this Spring MVC application - what should be used in place of $\verb|<THE|$ CONTROLLER SERVLET>?

And what is the name of the Spring XML file that will, by default, be searched for?

- Org.springframework.web.servlet.DispatcherServlet and applicationContext.xml
- Org.springframework.web.servlet.DispatcherServlet and ikoko-servlet.xml
- Your custom servlet and applicationContext.xml
- C Your custom servlet and ikoko-servlet.xml