

# CHAPTER 1

## 1. Spring is what kind of component?

- a) Lightweight
- b) Heavyweight
- c) None of one

## 2. IOC is a technique that externalizes the creation and management of

- a) Context dependencies
- b) Component dependencies
- c) Action dependencies
- d) None

## 3. Benefits of DI (Dependency Injection) is

- a) Reduced glue code
- b) Simplified application configuration
- c) Ability to manage common dependencies
- d) Improved testability
- e) Fostering good application design

## 4. Spring Expression Language (SpEL) is a technology to allow an application

- a) To manipulate Java objects at runtime
- b) To evaluate expressions at runtime
- c) To access Java objects and spring beans at runtime
- d) Above all

## 5. Spring's data access module provides out-of-the-box support for

- a) JDBC
- b) JDO
- c) Hibernate
- d) JPA

e) Above all

## 6. Transforming JavaBeans into XML

- a) Marshaling
- b) Un marshaling

## 7. Transforming XML into Java objects

- a) Marshaling
- b) Un marshaling

## 8. What is spring?

- a) a database
- b) a framework
- c) a component
- d) a java class

## 9. The core of the Spring Framework is based on the principle of

- a) DOC
- b) JNDI
- c) IOC
- d) XML

## 10. What is IOC?

- a) A JavaBean
- b) Depend on DI
- c) A framework
- d) Externalize the management of component dependencies

## 11. Spring's DI implementation is based around two core java concepts:

- a) JavaBeans
- b) interfaces
- c) java object
- d) method

**12. There are different ways to configure dependency. Which are?**

- a) Externally in Xml file
- b) Spring java configuration classes
- c) Faces-config
- d) Java annotations

**13. AOP provides the ability to implement**

- a) Crosscutting logic
- b) MVC logic
- c) Constraint logic
- d) Bean logic

**14. Spring introduce which expression Language?**

- a) Special Expression language
- b) SQL Expression
- c) SpEL
- d) Java Language

**15. What does mean the @NotNull annotation to bean's property?**

- a) Attribute shouldn't contain a null value
- b) Attribute should contain a null value
- c) Shouldn't use for validation

**16. By default, Spring will first look for which validator?**

- a) Spring validator
- b) Hibernate validator
- c) Bean validator
- d) Xml validator

**17. Which are true?**

- a) Marshaling (transforming JavaBeans to XML)
- b) Un marshaling (transforming JavaBeans to XML)

c) Un marshaling (transforming XML into Java objects)

d) Marshaling (transforming XML into Java objects)

**18. Which are the alternatives to Spring Framework?**

- a) JBoss Seam Framework
- b) Google Guice
- c) Pico Container
- d) JEE 6 Container
- e) Above All

**19. Which is not Spring own Module JAR File**

- a) Aop
- b) Oxm
- c) primeface
- d) Asm

**20. Spring is described as a**

- a. Heavyweight framework
- b. Loosely type framework
- c. Lightweight framework
- d. Standalone framework

**21. When Dependency Injections are injected by Spring?**

- a) Runtime
- b) Coding time
- c) Compile time

**22. JavaBeans also Known as?**

- a) POJOs
- b) XML
- c) ANNOTATIONS

**23. What is inversion of Control (IOC)?**

a) IOC is a technique that externalizes the creation of management of component dependencies.

b) IOC is a technique that internalizes the creation of management of component dependencies.

c) a & b

d) none.

#### 24. Spring's DI implementation based on

a) Two core Java concept.

b) Three core Java concept.

c) Four core Java concept.

#### 25. AOP stands for...

a) Aspect-oriented programming.

b) Aspect-orientation programming.

c) Aspect-object programming.

d) Aspect-ordered programming.

#### 26. AOP provides the implement\_\_\_\_\_

a) functional logic.

b) non-functional logic.

c) crosscutting logic.

#### 27. What is the meaning of 'marshaling'?

a) transforming JavaBean into XML.

b) transforming Java Object into XML.

c) transforming XML into JavaBean.

#### 28. What is the meaning of 'un marshaling'?

a) transforming Java Object into XML.

b) transforming XML into JavaBean.

c) transforming XML into Java object.

## Chapter -2

1. If we use Maven for Spring's applications, where we can add dependencies?

a) pom.xml

b) Web.xml

c) Context.xml

d) Config.xml

2. Which is a byte code manipulation framework?

a) Aop

b) asm

c) Jdbc

d) Jsm

3. Which module is needed for every Spring application?

a) Bean

b) Jdbc

c) core

d) Orm

4. If you are using EJB 2.1 or prior versions, then you must use \_\_\_\_\_Style of IOC?

a) Lookup style

b) Injection Style

c) None

5. Which one has zero Impact on your component code?

a. Injection

b. Lookup

c. both

6. Each Bean can be assigned either an -----

a) ID or a name or both

b) ID or property

c) ID or method

**7. Which Interface reads XML files?**

a. Xml Bean Definition Reader

b. Serializable

c. Bean Definition Registry

**8. Which version of jdk and Spring support java annotation?**

a. Jdk 4 and spring 1.0

b. Jdk 5 and spring 2.5

c. Jdk 2 and spring 2.0

**9. You use Maven for application development, you can simply add the dependencies for Spring into the project's pom.xml (project object model) file, and Maven will download \_\_\_\_\_ for you.**

a) XML

b) JDBC

c) JAR files

d) Maven

**10. The full distribution of Spring including a \_\_\_\_\_ set of dependencies.**

a) integration

b) voluminous

c) transaction

d) manipulation

**11. Which is ASM (asm.ow2.org) a Java Byte Code framework?**

a) MVC framework

b) Struts web framework

c) Spring framework

d) Manipulation framework

**12. This module extends Spring's standard JDBC feature set with support for popular ORM tools including \_\_\_\_\_.**

a) iBATIS

b) JDO

c) JPA

d) All of them

**13. Which does this module include all classes for integration between? (two choose)**

a) Manipulation framework

b) Spring framework

c) MVC framework

d) Struts web framework

**14. Which is Maven a powerful application management tool?**

a) building

b) packaging

c) dependency

d) all of them

**15. Which is each Maven artifact identified by? (two choose)**

a) artifact ID

b) dependency management

c) packaging

d) packaging type

**16. Which is the naming convention of a Spring EBR different from?**

a) Maven repository

b) Maven artifact

c) Maven Central

**17. Most of the classes here support Spring's \_\_\_\_\_ implementation.**

a) manipulating

b) bean factory

c) MVC

d) AOP

**18. These modules provide support for OXM (object to XML mapping). Classes for abstraction of XML marshaling and unmarshaling and support for popular tools like\_\_\_\_\_.**

a) JAXB

b) XML Beans

c) X Stream

d) All of them

## CHAPTER 3

**1. Which provides security controls that prevent unauthorized users from creating and editing blog entries?**

a) Basic-Blog application

b) Spring-Blog application

c) Spring-based application

d) None

**2. Users with the user role(ROLE\_USER) assigned can perform (choose all that apply)**

a) Post a blog entry or comment on an existing entry

b) Edit a blog entry or comment they have created

c) None

**3. Users with the admin role(ROLE\_ADMIN) assigned can perform**

a) view audit data

b) perform user maintenance

c) all of the above

**4. Who allows users to express their opinions about particular entries by posting comments?**

a) Basic-Blog

b) Spring-Blog

c) Spring-based

d) all of the above

**5. What is the most appropriate tool for developing Spring-based application (choose all that apply)**

a) Eclipse IDE

b) Spring IDE

c) Maven plugin

d) Mylyn

e) all of the above

**6. How Spring supports the configuration management?**

a) via XML files

b) via Java annotations

c) above all

d) None

**7. Which layer is the core layer within the application and all business logic will be implemented in this layer?**

a) persistence layer

b) service layer

c) presentation layer

d) security layer

**8. Which are Spring supports?**

a) JDBC

b) Hibernate

c) MyBatis (iBATIS)

d) JDO

e) JPA

f) above all

**9. Spring AOP supports (choose all that apply)**

- a) Spring native AOP framework
- b) integration with the aspect AOP framework
- c) None

**10. In the data access layer, developers will implement data access objects to separate the data access logic from the business logic**

- a) true
- b) false

## Chapter 4

**1. Bean Factory is**

- a) An Interface
- b) an Object
- c) a Class
- d) None

**2. Application Context is**

- a) Interface
- b) Object
- c) Class
- d) None

**3. Application Context is an extension of**

- a) Action Servlet
- b) Action
- c) Bean Factory
- d) None

**4. There are two ways we can configure the Application Context in Spring. Which are**

- a) XML based
- b) Annotation based
- c) jdbc based
- d) SpEL Based

**5. Some service provided by Bean-Factory are:**

- a) Inheritance
- b) life-cycle
- c) autowiring
- d) None

**6. A component that requires certain dependencies is often referred to as the**

- a) Action Servlet
- b) Dependent object
- c) Independent object
- d) None

**7. IOC can be decomposed into two subtypes are**

- a) Dependency Injection
- b) Dependency Lookup
- c) Bean factory
- d) None

**8. Dependency Lookup is**

- a) Traditional approach
- b) Newer approach
- c) Both

**9. Dependency Injection is**

- a) Traditional approach
- b) Newer approach
- c) Both

**10. Dependencies are injected into the component by the**

- a) Servlet container
- b) java container
- c) IOC container

**11. Dependency Lookup are two types**

- a) Dependency Pull
- b) Contextualized Dependency Lookup (CDL)
- c) Bean factory
- d) None

**12. Dependency Injection are two types**

- a) Constructor Dependency Injection
- b) Setter Dependency Injection
- c) Both twos

**13. Dependencies are pulled from a registry as required in**

- a) Dependency Pull
- b) Setter Dependency Injection
- c) Constructor Dependency Injection

**14. Lookup-based solutions are more complex than injection-based ones**

- a) True
- b) False

**15. Passive code is not much simpler to maintain than active code**

- a) True
- b) False

**16. Setter Injection is that it allows dependencies to be declared on an interface**

- a) True
- b) False

**17. Configuration parameters are**

- a) Passive
- b) Information
- c) Components
- d) Simple values

**18. Transaction and AOP service, message source for internationalization (i18n) and application event handling are the services of**

- a) Application-Context
- b) Bean-Factory
- c) Factory-Bean
- d) Action-Servlet

**19. XML file configuration will override the annotation ones**

- a) True
- b) False

**20. Which namespace provides support for configuring Spring's Application-Context**

- a) context
- b) p
- c) c
- d) Action-Servlet

**21. Which namespace provides a simpler DI configuration for Setter Injection**

- a) e
- b) p
- c) c

**22. Which namespace provides a simpler DI configuration for Constructor Injection**

- a) context
- b) p
- c) c

**23. Which namespace provides some useful utilities for DI configuration**

- a) context
- b) p
- c) c
- d) util

**24. Multiple base-package can be defined by using**

- a) comma
- b) Semicolon
- c) Space
- d) Underscore

**25. By default, all beans in Spring are singletons**

- a) True
- b) False

**26. Dependency injection services that Spring offers, including**

- a) Setter Injection
- b) Constructor Injection
- c) Method Injection
- d) Getter Injection

**27. Spring's Application-Context interface extends**

- a) Bean-Factory
- b) Generic-Application-Context
- c) Generic-Application
- d) None

**28. How many ways to configure Spring application context?**

- a) Three
- b) Four
- c) Two

d) Five

**29. How many types of Dependency Lookup?**

- a) Three
- b) Two
- c) Four
- d) Five

**30. Dependency Pull is the most familiar type of**

- a) IOC
- b) DI
- c) Contextualized Dependency Lookup
- d) None

**31. public class DepInjection{**

**private Dependency dependency ; public void  
setDependency(Dependency dependency ){**

**this.dependency = dependency ;**

**}**

**}**

**What type of the above code is?**

- a) Constructor Dependency Injection
- b) Setter Dependency Injection
- c) Method Dependency Injection
- d) Getter Dependency Injection

**32. Active code is much simpler and less error prone.**

- a) True
- b) False

**33. IOC Stands for**

- a) Inversion of Control
- b) Inversion of Class



**34. DI is specialized from**

- a) CDL
- b) IOC

**35. Bean-Factory is a class**

- a) True
- b) False

**36. What is the role IOC container in Spring?**

- a) Create the instance
- b) Configure the instance
- c) Assemble the dependencies
- d) None

**37. Which is the more traditional approach**

- a) Dependency Injection
- b) Dependency Lookup

**38. Dependency Lookup are**

- a) Dependency Pull
- b) Contextualized Dependency Lookup
- c) None of above

**39. DI stands for ...**

- a) Declaration interface
- b) Dependency interceptor
- c) Dependency Injection

**40. CDL stands for...**

- a) Controller Dependency Lookup
- b) Contextualized Dependency lookup
- c) None

**41. Bean-Definition-Registry is an interface**

a) True

b) False

**42. IOC can be decomposed in which subtype**

- a. Dependency Injection.
- b. Dependency certain.
- c. Dependency Lookup.
- d. Dependency pull

**43. Which statement are correct**

- a. Dependency Lookup is newer.
- b. Dependency Injection is newer.
- c. Dependency Lookup is more familiar to java programmers.
- d. Dependency Lookup is much traditional.

**44. Function of dependency pull are**

- a. Establish relation between two dependencies.
- b. Make Connection to Database.
- c. Dependencies are pulled from a registry as required.

**45. Dependency requirement exposed by the**

- a. `setDependency ();`
- b. `getDependency();`
- c. `putDependency ()`
- d. `dependency constructor ();`

**46. Passive code is much simpler to maintain than active code**

- a. True.
- b. False.

**47. The core of Spring's implementation is based on**

- a. Lookup injection
- b. Dependency injection

- c. Dependency lookup.
- d. Constructor injection

**48. Bean can also have instantiated without any ID and name known as**

- a. Bean-Factory.
- b. Anonymous class.
- c. Anonymous bean.
- d. Xml-Bean-Definition.

**49. Which statement are true about namespace**

- a) c: The context namespace provides support for configuring spring's application context
- b) P: The p namespace provides a simpler DI configuration for setter injection.
- c) util: The util namespace provides some useful utilities for DI configuration for constructor Injection.

**50. Spring is described as ..... For building java application.**

- a) A lightweight framework
- b) A standard framework
- c) An explain framework
- d) None

**51. Inversion of control (IOC) represent –**

- a) Dependency lookup
- b) Dependency injection
- c) Traditional approach
- d) Both a & b

**52. Dependency injection has two common flavors, there are**

- a) Method Dependency injection
- b) Constructor Dependency injection
- c) Getter Dependency injection

**d) Setter Dependency injection**

**53. For xml configuration you need to declared the required-**

- a) Namespace
- b) Logical method
- c) Dependency pull

**54. What are the true for configure parameter?**

- a) Configure parameters are passive
- b) Configuration parameters are usually information not other component.
- c) Configure parameters are usually simple value.
- d) All of above.

**55. Advantage of Dependency injection**

- a) Makes the code loosely coupled, so easy to maintain
- b) Makes the code easy to test
- c) Both a & b
- d) None

**56. Advantage of Spring framework**

- a) Powerful abstraction
- b) Lightweight
- c) Easy to test
- d) All of above

**57. There are two types of IOC containers. They are**

- a) Bean-Factory
- b) Application-Context
- c) Bean-Context
- d) Application-Factory

**58. Which is the Artifact ID for spring aspects Module JAR File.**

- a) spring-aspects
- b) spring-core

- c) spring-asm
- d) spring-aop

**59. SpEL Means**

- a) Spring Expression Language
- b) Spring Exception Language
- c) Spring Export Language
- d) None

**60. Which tags are used in Annotation based configuration?**

- a) <context: annotation-config>
- b) <context: component-scan base-package="com.exam">
- c) A & B
- d) None

**61. Write down the way of Dependency LookUp ?**

- a) Dependency Pull
- b) Contextualized Dependency LookUp (CDL)
- c) both.
- d) None.

**62. Write down the way of Dependency Injection?**

- a) Constructor Dependency Injection.
- b) Setter Dependency Injection.
- c) both.
- d) None.

**63. Spring Expression Language (SpEL) is the Feature OF \_\_\_\_?**

- a) Spring 1
- b) Spring 2
- c) Spring 3

**64. To configure Spring to Inject one bean to another we use \_\_\_\_ tag under the <Property> or <constructor-app>.**

- a) <ref>
- b) <prob>
- c) <entry>

**65. By using <prob> tag We can pass value as \_\_\_\_?**

- a) List
- b) String
- c) Map

**66. If we want to use Lookup Method injection in our application, we need a jar file called \_\_\_\_?**

- a) CGLIB JAR file.
- b) Dpl jar file.

**67. When you need to avoid to use method LookUp Injection in the beans?**

- a) In the same life cycle
- b) If they are singleton
- c) If they are non-singleton.
- d) A & B

**68. Every Bean must have a unique \_\_\_\_ With the application-context?**

- a) ID.
- b) Name.
- c) Class
- d) Scope

**69. By default, all beans in spring are \_\_\_\_?**

- a) Non singletons.
- b) Singletons.
- c) Prototype
- d) session

**70. Which of those bean scopes are supported by the version 3.1?**

- a) Singleton
- b) Prototype

- c) Request
- d) Session
- e) All of the above

**71. Spring support how many modes of Auto Wiring?**

- a) 2
- b) 3
- c) 4
- d) 5

**Note: by-Name, by-Type, constructor, default**

## Chapter 6

**1. Which type of AOP is correct?**

- a. Static and non-static
- b. Static and dynamic
- c. Non-static and dynamic

**2. By creating \_\_\_\_\_, you gain fine-grained control over how you apply advice to the components in your application.**

- a. Pointcuts
- b. Joinpoints
- c. Aspects
- d. Weaving

**3. An aspect is the combination of advice and pointcuts.**

- A. True
- B. False

**4. Spring has two proxy implementations: the JDK dynamic proxy and the CGLIB proxy.**

- A. False
- B. True

**5. Spring supports \_\_\_\_\_ different flavors of advice.**

- A. Three
- B. Four
- C. Five
- D. Six

**6. Which of the following interface is related to "Around" advice in spring?**

- A. org.springframework.aop.MethodAround
- B. org.aopalliance.intercept.MethodInterceptor
- C. org.springframework.aop.AfterAdvice

**7. When you are working with third-party or legacy code which of the following proxies you must use?**

- A. JDK dynamic proxies
- B. CGLIB proxies
- C. Both of the above

**8. Chose the correct answer from the following options.**

- A. When a CGLIB proxy is first created, CGLIB asks Spring how it wants to handle each method.
- B. The CGLIB proxy handles fixed advice chains differently than the JDK proxy.
- a) Only A is correct
- b) Only B is correct
- c) Both A and B are correct

**9. The CGLIB proxy can proxy both classes and interfaces, whereas the JDK proxy can proxy only interfaces.**

- A. True
- B. False

**10. When proxying a class, which is the default choice?**

- A. JDK dynamic proxies

B. CGLIB proxies

C. There is no default choice

## Chapter 8

### 1. What's the meaning of CRUD?

A. Create, Read, Update, Destroy

B. Create, Run, Update, Destroy

C. Create, Read, Update, Delete

D. Create, Run, Update, Delete

### 2. JDBC Infrastructure is a driver that allows code to access the database.

A. True

B. False

### 3. When JDBC Infrastructure is loaded it registers itself with a \_\_\_\_\_ class.

A. java.sql.DriverController

B. java.sql.DriverManager

C. java.sql.jdbcInfrastructure

D. java.sql.jdbcDatabase

### 4. Which class manages a list of drivers and provides static methods for establishing connections to the database?

A. java.sql.DriverController

B. java.sql.DriverManager

C. java.sql.jdbcInfrastructure

D. java.sql.jdbcDatabase

### 5. Which interface allows to run SQL statement against database?

A. java.sql.DriverConnection

B. java.sql.DriverManager

C. java.sql.Connection

D. java.sql.JdbcConnection

### 6. Which package contain the foundation of JDBC class?

A. org.springframework.jdbc.core

B. org.springframework.jdbc.datasource

C. org.springframework.jdbc.object

D. org.springframework.jdbc.support

E. org.springframework.jdbc.config

### 7. Which package contain helper classes and Data source?

A. org.springframework.jdbc.core

B. org.springframework.jdbc.datasource

C. org.springframework.jdbc.object

D. org.springframework.jdbc.support

E. org.springframework.jdbc.config

### 8. Which package contain class that help to convert the data?

A. org.springframework.jdbc.core

B. org.springframework.jdbc.datasource

C. org.springframework.jdbc.object

D. org.springframework.jdbc.support

E. org.springframework.jdbc.config

### 9. Which is the most important class in org.springframework.jdbc.support package?

A. SQLException

B. SQLSyntaxError

C. SQLException

D. None

**10. Which package contains classes that supports JDBC configuration within Spring's Application Context?**

- A. org.springframework.jdbc.core
- B. org.springframework.jdbc.datasource
- C. org.springframework.jdbc.object
- D. org.springframework.jdbc.support
- E. org.springframework.jdbc.config

**11. Embedded database is useful for what?**

- A. Local Development
- B. Global Development
- C. Unit Testing
- D. A & B
- E. A & C
- F. B & C

**12. In the Spring JDBC module, there is a class called Jdbc-Dao-Support. It wraps up the \_\_\_\_\_ class.**

- A. JdbcSupport
- B. JdbcDao
- C. Jdbc-Template
- D. None

**13. Spring RowMapper<T> interface provides a simple way to perform mapping from a JDBC resultset to POJOs.**

- A. True
- B. False

**14. Which interface is suitable for only row base mapping to a single domain object?**

- A. RowMapping<T>
- B. RowMapper<T>
- C. ResultSetExtractor
- D. None of the above

**15. Which class wrap the query string together with the mapRow() method into a single class?**

- A. MappingSqlQuery<T>
- B. SqlUpdate
- C. BatchSqlUpdate
- D. SqlFunction<T>

**16. Which class allows to wrap any SQL update statement?**

- A. MappingSqlQuery<T>
- B. SqlUpdate
- C. BatchSqlUpdate
- D. SqlFunction<T>

**17. Which class allows to perform batch update operations?**

- A. MappingSqlQuery<T>
- B. SqlUpdate
- C. BatchSqlUpdate
- D. SqlFunction<T>

**18. Which class allow to call stored functions in the database with argument and return types.**

- A. MappingSqlQuery<T>
- B. SqlUpdate
- C. BatchSqlUpdate
- D. SqlFunction<T>

**19. MyBatis (formerly known as iBATIS) is a popular Data-Mapper framework.**

- A. True
- B. False

**20. Which is generally more widely used database for web application development, especially on the Linux platform?**

- A. PL/pgSQL
- B. MySQL

C. PostgreSQL

D. JDBC

**21. Which is procedural a language?**

A. MySQL

B. JDBC

**C. PL/psSQL**

D. None

**22. A database is a collection of data.**

**A. True**

B. False

**23. Which is the open source databases?**

A. PostgreSQL

B. HSQL

C. Derby

**D. All above**

**24. The difference between a Data-Source and a Connection is that a Data-Source provides and manages Connections.**

**A. True**

B. False

**25. Which package provides Driver-Manager-Data-Source?**

A. org.springframework.jdbc.object

B. org.springframework.jdbc.support

C. org.springframework.jdbc.config

**D. none**

**26. The Driver-Manager-Data-Source does not support database connection pooling makes this class unsuitable for anything other than testing.**

**A. True**

B. False

**27. Which is/are the JEE application server?**

A. JBoss

B. WebSphere

C. GlassFish

**D. Above all**

E. None

**28. Spring's JndiObjectFactoryBean to obtain the data source by**

A. JDBC lookup

**B. JNDI lookup**

C. MySQL lookup

D. None

**29. As of version 3.1, Spring supports by default**

**A. HSQL**

B. H2

C. DERBY

D. All Above

**30. Which is/are ORM frameworks?**

A. Hibernate

B. EclipseLink/ TopLink

C. OpenJPA

**D. All of the above**

**31. Which one is appropriate process to create a Table?**

a. Create table (Id int not null auto\_increment, First\_name varchar (25), Primary key(id));

b. Create table (Id int not null auto\_increment, First\_name varchar, Primary key(id));

**c. Create table customer (Id int not null auto\_increment, First\_name varchar (25), Primary key(id));**

**32. Which is not Spring JDBC Packages?**

- a. Core
- b. Data-source
- c. Object
- d. Config
- e. **servlet**

**33. What is the correct extension of properties file?**

- a. **jdbc.properties**
- b. Jdbc.property
- c. Jdbc.propertyfile

**34. Which one is not JEE application server?**

- a. JBoss
- b. webSpher
- c. GlassFish
- d. **Primefaces**

**35. DML stand for?**

- a. **Data manipulation language**
- b. Data maintain language
- c. Data margin language

**36. SQL Exception are runtime exceptions True or False?**

- a. **True**
- b. False

**37. Public class IdbExam{**

**Private DataSource datasource;**

**Public void setDataSource(DataSource dadasource){**

**This.datasource=datasource;**

**}**

**}**

**Above this application Data-Source is a ---**

- a. Interface
- b. **Class**
- c. Method

**38. JdbcTemplate is an Interface True or False?**

- a. True
- b. **False**

**39. Which is database management software?**

- a) **MySQL**
- b) Primeface
- c) Java
- d) Html

**40. RDBMS stands for**

- a) Relational Database Management Software.
- b) **Relational Database Management System.**
- c) Relative Database Management System.

**41. Driver-Manager-Data-Source is under the package of**

- a) Org.springframework.jdbc.JDBC
- b) **Org.springframework.jdbc.datasource**
- c) Org.springframework.jdbc.jdbcTemplate
- d) Org.springframework.jdbc.DriverManagerDataSource

**42. What is friendlier to Oracle developers?**

- a) MySQL
- b) **PostgreSQL**
- c) Oracle
- d) Above all

**43. MySQL is generally more widely used for....**

- a) **Web application development**
- b) Desktop application development



- c) Both a & b
- d) None

**44. ORM stands for**

- a) Object-Related Mapping
- b) Object-Related Module
- c) Object-Relational Mapping
- d) Object-Relational Module

**45. What is the alternative of Object-Relational Mapping?**

- a) JDBC
- b) ODBC
- c) JPA
- d) Hibernate

**46. The instance of RDBMS is called**

- a) Database management software
- b) Database engine
- c) Database server
- d) Database management system

**47. In the Spring Jdbc module, there is a class called**

- a) JdbcDaoSupport
- b) JdbcTemplateSupport
- c) JdbcTemplateDaoSupport
- d) JdbcObjectDaoSupport

**48. Popular ORM framework is/are**

- a) Hibernate
- b) EclipseLink
- c) OpenJPA
- d) Above all

**49. What are the advantage of jdbcTemplate?**

- a) mentioned problems of JDBC API.
- b) It provides you methods to write the queries directly,
- c) it saves a lot of work and time.
- d) All of the above

**50. What is a powerful mechanism to connect to the database and execute SQL queries?**

- a) Jdbc
- b) jdbcTemplate
- c) odbcTemplate
- d) none of above

**51. ResultSetExtractor interface can be used**

- a. to fetch records from the database
- b. to delete records from the database
- c. a+b
- d. none

**52. What are spring Jdbc package?**

- a. org.springframework.jdbc.core
- b. org.springframework.jdbc.datasource
- c. org.springframework.jdbc.config
- d. all of the above

**53. Under which package the Driver-Manager is?**

- a. org.springframework.jdbc.core
- b. org.springframework.jdbc.datasource
- c. org.springframework.jdbc.config
- d. none

**54. Where from spring property placeholder will load the connection information?**

- a. jdbc.properties
- b. jdbc.config
- c. jdbc.support

d. jdbc.object

**55. Data-Source implement by ---**

a. JEE Application server

b. JMV Application server

c. ODBC Application server

d. Object Application server

**56. Which version spring offer embedded database supported**

a. version 4.0

b. version 3.0

c. version 1.0

d. all

**57. Why jdbcTemplate used for?**

a. allows to issue any type of sql statement

b. returns any type of result

c. both a & b

d. none

**58. jdbcTemplate will be initialized automatically\_\_\_\_\_**

a. when extend DAO supported.

b. then extend JDBC supported.

c. a+b

d. only b

**59. Which is not Hibernate configuration property?**

a. hibernate.dialect

b. hibernate.batch

c. hibernate.batch-size

d. hibernate.fetch-size

**60. which are spring supported Entity-Manager-Factory?**

a. LocalEntiyManagerFactory Bean

b. JEE6 compliant container

c. localContaineLocalEntiyManagerFactory Bean

d. all of above

**61. Spring JdbcTemplate is based on which design pattern**

A. Decorator

B. Proxy

C. Facade

D. Template

**62. The interface is used by the JdbcTemplate to map a resultset row is**

A. RowElementMapper

B. RowMapper

C. Mapper

D. ValueMapper

Ans: B

**63. The main advantage of using Data Access Object (a.k.a. DAO) pattern is**

A. It provides object modeling for data

B. It provides access credentials to the data objects

C. It hides database specific implementation from the other layers of the application

D. It always provides non jdbc specific implementation.

**64. A key benefit of using Data-Source is that**

A. it is possible to use a database connection pool to fetch database connection

B. it is possible to directly connect to a database without using connection parameters

C. it automatically enables distributed transactions

D. it facilitates logging of database queries and their results.

**65. If JdbcTemplate is used then**

A. SQL queries automatically become database agnostic

- B. object relational mapping is available out of the box
- C. it is not necessary to write SQL queries
- D. it is not necessary to manage connections in the application code**

**66. Named parameters are typically used for**

- A. Statements
- B. Prepared Statements**
- C. Callable Statements
- D. Transactions

**67. Named parameters are typically specified using**

- A. semicolon (;)
- B. dot (.)
- C. colon (:)**
- D. hash (#)

**68. Named parameters are typically passed using a**

- A. List
- B. Set
- C. Map**
- D. TreeSet

**69. Using named parameters is preferred due to**

- A. proxy pattern usage
- B. low cohesion
- C. loose coupling
- D. improved code maintainability**

**70. Jdbc-Dao-Support is based on**

- A. Visitor pattern
- B. Decorator pattern
- C. Proxy pattern
- D. Data Access Object pattern**

**71. Jdbc-Dao-Support typically has a reference to**

- A. JdbcDataSource
- B. JdbcReference
- C. Template
- D. JdbcTemplate**

**72. Jdbc-Dao-Support can be used as a**

- A. cloned class for all data access operations
- B. base class for all data access operations**
- C. derived class for all data access operations
- D. inner class for all data access operations

**73. A class which extends Jdbc-Dao-Support is often injected into**

- A. Service class**
- B. Decorator class
- C. Visitor class
- D. Proxy class

## Chapter 9

**1) Which is manage Hibernate's session factory to work in a Spring application?**

- a) SessionFactory**
- b) Application context
- c) method

**2) A Java class that is mapped to the underlying relational database structure is called**

- a) An entity class**
- b) A java class
- c) An Object Mapping

**3) which is the Maven's project object model file?**

- a) Web.xml
- b) context.xml
- c) pom.xml

**4) The core concept of Hibernate is based on-**

- a) Session factory
- b) Session interface
- c) Application context

**5) embedded database using**

- a) H2
- b) h2
- c) h1
- d) H1

**6) Which is declaration of transaction demarcation requirements using annotations?**

- a) <tx:annotation-class>
- b) <tx:annotated-driven>
- c) <tx:annotation-driven>

**7) "depth" commonly used value is?**

- a) 3
- b) 4
- c) 5

**8) "@Entity" which means that this is a mapped-**

- a) java class
- b) entity object
- c) entity class

**9) "@Temporal" means we would like to map The data type from the Java date type**

- a) date type

b) object type

c) string type

**10) HQL means?**

- a) Hibernate Query Language
- b) Hipertext Query Language
- c) Hiperlink Query Language

**11) which means we want the transaction to be set as read-only?**

- a) readOnly=true
- b) readOnly=false
- c) readOnly=yes
- d) readOnly=no

**12) which means that Hibernate will not join the association tables for records?**

- a) throw the IOException
- b) throw the InitializationException
- c) throw the Lazy-InitializationException

**13) Hibernate covered common techniques for defining ----- mappings**

- a) ORM
- b) MVC
- c) JVM

**14) Spring was developed to embrace POJO base development.**

- A. True
- B. False

**15) What is the main objective of an ORM library?**

- A. Close the gap between the relational data structure in the RDBMS and the OO model
- B. Close the gap between the hibernate and sql

C. Close the gap between the OO model and hibernate

D. None of the above

**16) From EJB 2.5, the EJB entity bean was replaced with the Java Persistence (JPA)**

A. True

B. False

**17) POJO stand for?**

a. Plain Old Java Object

b. Pre old java object

c. Plain order java object

**18) The relationship between hibernate and JPA is very close True or False?**

a. True

b. False

**19) When we use the Annotation-Session-Factory-Bean \_\_\_\_\_**

a. Then use Xml annotation support

b. Then use Hibernate annotation support

c. None of the above

**20) How many approaches are there to the mapping Hibernate Annotations?**

a. One

b. Two

c. Three

**21) Which one is correct method for deleting data?**

a. Public void delete(Contact contact){

sessionFactory.getCurentSession().delete(contact);

log.info("contact delete with id: " + contact.getId());

}

b. Public void delete(Contact contact){

sessionFactory.getCurentSession().delete();

log.info("contact delete with id: " + contact.getId());

}

c. Public void delete(Contact contact){

sessionFactory.getCurentSession().delete(delete());

log.info("contact delete with id: " + contact.getId());

}

**22) Object-Relational Mapping libraries that has wide support in spring**

a) Hibernate

b) JDBC

c) JPA

d) ODBC

**23) JDO stands for**

a) Java Data Object

b) Java Database Object

c) None

**24) Popular ORM libraries are ....**

a) Hibernate

b) TopLink

c) JDO

d) None

**25) Who is the founder of Hibernate?**

a) Rod Johnson

b) John Hibernate

c) Gavin King

d) Gavin Smith

**26) Annotation approach is much more popular approach.**

a) True

b) False

**27) Hibernate has the capability to model a lot of different kinds of....**

- a) Generation
- b) Performance
- c) Associations
- d) Above all

**28) Who is the founder of Spring3?**

- A. Rod Johnson
- B. John Hibernate
- C. Gavin King
- D. Gavin Smith

## Chapter 10

**1. JPA means \_\_?**

- A. Java Processing Approach
- B. Java Persistence Applied
- C. Java Persistence API
- D. None

**2. STS means \_\_?**

- A. Spring Tool Showcase
- B. Spring Tool Suits
- C. Spring Technical Support
- D. Spring Tool Setting

**3. Which are the class level architecture of JPA?**

- A. EntityManagerFactory

B. Entity-Transaction

C. Component scan

D. A & B

**4. Which is creates and manages multiple Entity-Manager instances.**

- A. EntityManagerFactory
- B. EntityTransaction
- C. Persistence
- D. None

**5. This class contain static methods to obtain Entity-Manager-Factory instance.**

- A. EntityManagerFactory class
- B. EntityTransaction class
- C. Persistence class
- D. None

**6. Which is the persistence objects, stores as records in the database.**

- A. EntityManagerFactory
- B. EntityTransaction
- C. Persistence
- D. Entity

**7. The relationship between Entity-Manager-Factory and Entity-Manager is \_\_?**

- A. one-to-many
- B. one-to-one
- C. None

**8. The relationship between Entity-Manager and Entity-Transaction is \_\_?**

- A. one-to-many
- B. one-to-one
- C. None

**9. The relationship between Entity-Manager and Entity is \_\_?**

**A. one-to-many**

B. one-to-one

C. None

**10. Entity-Manager instance is used to create a \_\_?**

A. query object

**B. Criteria-Builder object**

C. Entity object

D. None

**11. Criteria-Query instance is used to create a \_\_?**

**A. query object**

B. Criteria-Builder object

C. Embedded objects

D. None

**12. CRM means\_\_?**

**A. Customer Relational Management**

B. Customer Relational Manager

C. Customer Relative Management

D. Customer Relative Manager

**13. To inject the Entity-Manager, we use the \_\_?**

**A. @Persistence-Context annotation**

B. @Repository annotation

C. @Service annotation

D. None

**14. Which file is required to configure the database and the registration of entity classes?**

**A. Persistence.xml**

B. Web.xml

C. App-context.xml

D. None

**15. We need to configure an Entity-Manager-Factory in Spring, just like the Session-Factory in Hibernate.**

**a) true**

b) false

**16. EMF means \_\_?**

A. Even Management Future

**B. Entity-Manager-Factory**

c. Entry Management Factory

D. None of the above

**17. The entity manager factory requires a \_\_ \_\_ for transactional data access.**

A. component Scan

**B. transaction Manager**

c. dataSource

D. None of the above

**18. Entity-Manager is**

A. A class

B. An object

**C. An interface**

**19. The main job of Entity-Manager is to maintain a persistence context, in which all the entity instances under management will be stored.**

**A. True**

B. False

**20. JPQL is very similar to**

A. MySQL

**B. HQL**

C. iBatis

D. None

**21. A SQL resultset mapping is defined at the entity class level using the annotation**

A. @SqlResultSetMapping

B. @SqlResultSetExtractor

C. @SqlResultSetQuery

Ans. A

**22. EntityManager.getCriteriaBuilder() was called to retrieve an instance of CriteriaBuilder.**

A. True

B. False

**23. Which is not JPA persistence?**

a. Hibernate

b. eclipseLink

c. OracleTopLink

d. Maven

**24. In JPA2 Which one is same as Session-Factory?**

a. EntityManagerFactory

b. SessionManagerFactory

c. Session

**25. How many types of configuration spring supports?**

a. One

b. Two

c. Three

d. Four

**26. How many types of EntityManagerFactory configuration Spring supports?**

a) Two

b) Five

c) Three

d) Four

**27. Which method is used to delete data in JPA?**

a) EntityManager.remove()

b) EntityManager.destroy()

c) EntityManager.delete()

d) None

**28. A hierarchical in an oracle database. This kind of query is database-specific and referred to as a.....**

a) Custom query

b) Simple query

c) Native query

d) JPA query

**29. JPQL stands for**

a) Java Persistence Query Language

b) Java Persistency Query Language

c) Java Persistent Query Language

d) Java Persist Query Language

**30. Spring also provides intensive support for JPA.**

a) True

b) False

**31. Why is it a best practice to mark transaction as read-only when code does not write anything to the database? Select one or more answers.**

a) It is mandatory for using Spring exception translation mechanism

b) May be improve performance when using Hibernate

c) Spring optimizes its transaction interceptor

d) Provides safeguards with Oracle and some other databases.



**32. What data access technology is supported by the Spring framework? Select one or more answers.**

- a) JDBC
- b) NoSQL
- c) Hibernate
- d) JPA

**33. What is not provided by the JdbcTemplate? Select a unique answer.**

- a) Data source access
- b) Open/close data source connection
- c) JDBC exception wrapping into Data-Access Exception
- d) JDBC statement execution

**34. Using JdbcTemplate, what is the Spring provided class you will use for resultset parsing and merging rows into a single object? Select a unique answer.**

- a) RowMapper
- b) RowCallbackHandler
- c) ResultSetExtractor
- d) ResultSetMapper

**35. What configuration is supported by the LocalSessionFactoryBean? Select a unique answer.**

- a) Listing entity classes annotated with @Entity
- b) Scanning a package to detect annotated entity classes (with @Entity)
- c) Listing hibernate XML mapping configuration file (hbm.xml)
- d) All above

## Chapter 12

**1. Why we use the Design to interfaces**

- A) Remove coupling
- B) Lose coupling
- C) Reduce coupling
- D) All of the above

**2. In java, a class has only one shot at concrete inheritance but can implement as how much interfaces as necessary?**

- A) Two interfaces
- B) Three interfaces
- C) One interfaces
- D) Many interfaces

**3. DOM model concept come from?**

- A) Interface problem
- B) Domain problem
- C) Database problem
- D) Pattern problem

**4. The Data pattern it is not the same as the value object pattern.**

- A) True
- B) False

**5. DOM refers to**

- A. Document Object Model
- B. Domain Object Model
- C. Delivery Object Model

**6. DOM is a collection of \_\_\_\_\_ that provides an abstract model of the data.**

- A. Object**
- B. Interface
- C. Method

**7. An application's service layer is a layer where all of the business logic that makes up the application is encapsulated.**

- A. True**
- B. False

**8. In Java, a class has only \_\_\_\_\_ shot at concrete inheritance.**

- A. One**
- B. Two
- C. Three
- D. Five

**9. Consider a system that has a business interface called.**

- A. FreeService
- B. OrderService**
- C. ExecuteService

**10. Which is/are the drawbacks of the Basic Factory Pattern.**

- A. There is no way to change an implementing class without a recompile.
- B. There is no way simply to switch instantiation models.
- D. Both A and B**

**11. The Value Object Pattern is same as the Data Transfer Object Pattern.**

- A. True
- B. False**

**12. Which one is traditional OOP best practice?**

- a. Interface-driven design**
- b. Building domain object model
- c. None of the above

**13. What is the responsibility of Factory Pattern?**

- a) To provide application component**
- b) To provide application context
- c) To provide application initiated object
- d) Above all

**14. How many drawbacks are there in Factory Pattern?**

- a) Five
- b) Six
- c) Two
- d) Three**

**15. What is the biggest drawback of the traditional Factory Pattern?**

- a) Multiple implementation**
- b) Single implementation
- c) Both a & b
- d) None

**16. A Domain Object Model (DOM) is asset classes that model concepts from the problem domain.**

- a) True**
- b) False

**17. A good DOM makes it easier for developers to transform application requirements into application features.**

- a) True**
- b) False

**18. The goal of DOM is to create a set of**

- a) Methods

- b) Classes
- c) Objects
- d) Instances

**19. DTO stands for**

- a) Data Objects
- b) Database Objects
- c) Data Transfer Objects
- d) None

## Chapter 14

**1. What is/are the purpose of validation?**

- a) Fulfills all predefined business requirements.
- b) Ensure the data integrity of the application.
- c) Usefulness in other layers of the application.

**2. In application development, data validation is always mentioned along with \_\_\_\_\_.**

- a) Conversion
- b) Formatting
- c) Both conversion and formatting

**3. Why in application development, data validation is always mentioned along with conversion and formatting?**

- a) The format of the source of data is different from the format being used in the application server
- b) The format of the source of data is similar with the format being used in the application server

**4. Type Conversion system can-**

- a) provide an alternative to Property-Editor support

b) be configured to convert between any Java types and POJOs

**5. To use the conversion service instead of Property Editor, where we need to configure an instance of the `org.springframework.core.convert.ConversionService` interface?**

- a) web.xml
- b) dispatcher-servlet.xml
- c) applicationContext.xml
- d) context.xml

**6. By default, the type conversion service supports conversion between common types including strings, numbers, enums, collections, maps, and so on.**

- a) True
- b) False

**7. What does shows the bellow picture:**

- a) Relationship between validation, conversion, and formatting
- b) Relationship between validation and formatting
- c) Relationship between validation and conversion
- d) None of the above

**8. The real strength of the type conversion system is not the ability to convert between arbitrary types.**

- a) True
- b) False

**9. In the web application context configuration, the declaration of the tag `<mvc:annotation-driven/>` will \_\_\_\_\_ register all default converters.**

- a) Automatically
- b) Manually

**10. The ideal case is that all validation rules are maintained in a \_\_\_\_\_.**

a) Centralized location.

b) Different location

**11. How many main types of validation supports by spring?**

a) Two

b) Three

c) Four

d) Five

**12. What is JSR-303?**

a) Spring dependency

b) Spring formatting

c) Spring conversion

d) Bean Validation API

**13. Using Spring's Validator interface, we can develop some validation logic by creating a class to implement the interface.**

a) True

b) False

**14. SPI stands for .....**

a) Service Provider Interface

b) Service Provider Inheritance

c) Service Provider Interfaces

d) None

**15. Spring provides a few implementations of commonly used types, including**

a) CurrencyFormatter

b) DateFormatter

c) NumberFormatter

d) PercentFormatter

e) Above all

**16. Validations rules applied on domain objects ensure that all business data is well structured and fulfills all business logic**

a) True

b) False

**17. JSR-303 is a JEE standard and is broadly supported by many fronted/backend frameworks. Which are these?**

a) Spring

b) JPA2

c) Spring MVC

d) GWT

e) Above all

## Chapter 17

**1. For Which attribute we use bite array as a JAVA data type?**

a. Photo attribute

b. Text attribute

c. Name attribute

**2. To set up the service layer within the spring MVC project what we create first**

a. Class

b. Configuration file

c. Method

Ans: b

**3. What is commonly used pattern in implementing the presentation layer of an application.**

a. Model

b. View

c. Controller

d. MVC

**4. What is for spring bootstrap and shut down the root web application context**

a. CharacterEncodingFilter

b. ContextLoderListerner

c. httpMethodFiltter

d. HiddenHttpMethodFilter

**5. Which filter is used to specify the character encoding for request?**

a. CharacterEncodingFilter

b. ContextLoderListerner

c. httpMethodFiltter

d. HiddenHttpMethodFilter

**6. Which filter provides supports for Http methods other than GET and POST?**

a. CharacterEncodingFilter

b. ContextLoderListerner

c. httpMethodFiltter

d. HiddenHttpMethodFilter

**7. Which library provides a rich text editor in input form?**

a. Images

b. Jqgrid

c. Ckeditor

d. Style

**8. When we use <spring: eval> tag?**

a. If the require filled is null

b. If the require filled is not null

**9. Which attribute specifies the link for sending XmlHttpRequest, which gets the data for the current page?**

a. Datatype

b. url

c. mtype

d. pager

**10. Which attribute specifies the data format**

a. Datatype

b. url

c. mtype

d. pager

**11. Which attribute enables pagination support?**

a. Datatype

b. url

c. mtype

d. pager

**12. how many ways to file upload support?**

a. 2

b. 3

c. 4

d. 5

**13. Which one is not web application frameworks?**

a. Spring MVC

b. Struts

c. Java Server Faces(JSF)

d. MySQL

**14. Spring MVC which is the central servlet that receives requests and dispatchers then to the appropriate controllers?**

a. DispatcherServlet

- b. Servlet
- c. ActionServlet
- d. None of the above

**15. Which one is not Interface?**

- a. HandlerExceptionResolver
- b. ViewResolver
- c. ModelAndView

**16. Major consideration for developing web application choose all that apply?**

- a. Performance
- b. User-friendly
- c. Accessibility
- d. All

**17. What is the Artifact ID of Joda-time?**

- a. joda-time-jsptags
- b. joda-time-htmltags
- c. joda-time-jsftags
- d. None

**18. The usage of Spring MVC?**

- a. Internationalization
- b. Theming
- c. Page templating
- d. All

**19. Richness to the Spring-Blog-Application highlights are?**

- a. User Interface
- b. Rich-text-editing
- c. Data grid with pagination
- d. None

**20. GWT stands for**

- a) Google Web Toolkit
- b) Google Website Toolkit
- c) Google Web-based Toolkit
- d) Nome

**21. The main principle of MVC is to define an architecture with clear responsibilities for different component.**

- a) True
- b) False

**22. Spring provides comprehensive support the theming of web application.**

- a) True
- b) False

**23. How many steps contain to implement the show view?**

- a) Five
- b) Four
- c) Three
- d) Two

**24. jQuery is one of the most popular JavaScript libraries being used for ..... development**

- a) Desktop application
- b) Web fronted
- c) Both a & b
- d) None

**25. What is needed to be able to use jQuery and jQuery UI components in our view?**

- a) Style sheets JavaScript files
- b) Style sheets Java files
- c) Style sheets jsp files
- d) Style sheets jsf files

**26. What could not return a Spring MVC controller? Select a single answer.**

- a) An absolute path to the view
- b) A logical view name
- c) A new JstlView
- d) void
- e) null value

**27. Where do you cannot declare Spring MVC controller? Select one or more answers.**

- a) In a Spring application context XML configuration file
- b) Into the web.xml file of the web application
- c) Into the java code by using annotations
- d) Into the JSP pages

**28. When a bean has scope limited to HTTP session that is called?**

- a) Request scope
- b) Session scope
- c) Prototype scope
- d) Singleton scope

## Chapter 18

**1. Spring used which repository abstraction?**

- A. JPA
- B. JDB
- C. JBoss Seam
- D. Velocity

**2. How many type of Spring web flow module?**

- A. Two
- B. Three
- C. Four
- D. Five

**3. How many concept of Spring web-flow architecture?**

- A. Two
- B. Three
- C. Four
- D. Five

**5.DSL means----**

- A. Domain Static Language
- B. Domain Simple Language
- C. Domain Specific Language
- D. Domain Situation Language

**6.How many types of bean scopes?**

- A. One
- B. Two
- c. Three
- D. Four

**7.JSF means---**

- A. Java SecuredFaces
- B. Java ServerFaces
- C. Java SecuredForm
- D. None of the above

**8.JSF consist of how many component?**

- A. One
- B. Two
- c. Three

D. Four

**9. Which component hierarchy is represented by nesting tags?**

A. DI

B. UI

C. IOC

D. None of the above

**10. How many phases in application life cycle?**

A. Four

B. Five

C. Six

D. Seven

**11. How many dependencies for spring web-flow, JSP2 and Prime Faces?**

A. Four

B. Five

C. Six

D. Seven

**12. Which are Spring web flow modules?**

a. spring-faces

b. spring-binding

c. spring-js

d. spring-webflow

e. All

**13. Which is not the Spring web flow feature?**

a. Flow

b. View

c. Controller

d. Conversation

**14. Which is not Life Cycle phases?**

a. Restore view

b. Apply request

c. Process validation

d. Apply conversation

**15. Which are the required dependencies for developing application using spring web flow with primefaces?**

a. org.springframework.webflow

b. com.sun.faces

c. org.primefaces

d. All

**16. Driver-Manager-Data-source is the implementation of a - ----**

a. mysqlDataSource

b. Database

c. DataSource

**17. Entity-Manager Interface is the core concept of -----**

a. JPA

b. SQL

c. JEE

d. JDA

**18. Spring Web Flow is an extension to the MVC pattern, it provides support for developing flow based applications and supports more fine-grained bean scopes.**

a) True

b) False

**19. The architecture of Spring Web Flow is built around by how many concepts?**

a) Three

b) Four

c) Five



d) Six

**20. A flow is a business process representing a use case. In Spring Web Flow, a flow consists of a series of steps called.....**

- a) Object
- b) Model
- c) Instance
- d) States

**21. How many types of conversion?**

- a) Two
- b) Three
- c) Four
- d) Five

**22. In a web application, in terms of bean scopes, there are which scopes are available?**

- a) Request
- b) Session
- c) Application
- d) Above all

**23. Available bean scopes in Spring Web Flow....**

- a) Flow
- b) View
- c) Request
- d) Flush
- e) Conversation
- f) Above all

**24. How many life cycles in JSF application?**

- a) Five
- b) Four
- c) Six

d) Three

**25. What are the components of JSF application life cycle?**

- a) Restore view
- b) Apply request
- c) Process validations
- d) Update model values
- e) Invoke application
- f) Render response
- g) Above all.

**The End.**