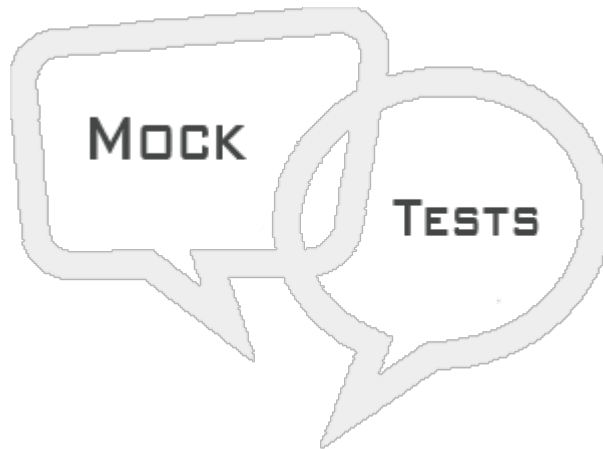


# HIBERNATE MOCK TEST

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## HIBERNATE MOCK TEST I

### Q 1 - What JDBC stands for?

- A - Java DB Connectivity
- B - Java Database Connectivity
- C - Java Data Bind Connect
- D - Java Data Bind Connector

### Q 2 - Which of the following is true about JDBC?

- A - JDBC stands for Java Database Connectivity.
- B - JDBC provides a set of Java API for accessing the relational databases from Java program.
- C - JDBC APIs enables Java programs to execute SQL statements and interact with any SQL compliant database.
- D - All of the above.

### Q 3 - What ORM stands for?

- A - Object Relation Map
- B - Object Relational Mapping
- C - Object Record Mapping
- D - None of the above.

### Q 4 - Which of the following is true about ORM?

- A - ORM stands for Object-Relational Mapping.

- B - ORM is a programming technique for converting data between relational databases.
- C - Both of the above.
- D - None of the above.

**Q 5 - Which of the following is not an ORM framework?**

- A - Castor
- B - Spring DAO
- C - Hibernate
- D - NoSQL

**Q 6 - Which of the following is true about Hibernate?**

- A - Hibernate is an Object-Relational Mapping *ORM* solution for JAVA.
- B - Hibernate is an Object-Relational Mapping *ORM* solution for .NET
- C - Both of the above.
- D - None of the above.

**Q 7 - Which of the following is true about Hibernate?**

- A - Hibernate takes care of mapping Java classes to database tables using XML files and without writing any line of code.
- B - Hibernate provides simple APIs for storing and retrieving Java objects directly to and from the database.
- C - Hibernate abstracts away the unfamiliar SQL types and provide us to work around familiar Java Objects.
- D - All of the above.

**Q 8 - Which of the following database is not supported by Hibernate?**

- A - DB2/NT
- B - MySQL
- C - FoundationDB
- D - PostgreSQL

**Q 9 - Which of the following tools/frameworks provides integration with Hibernate?**

- A - XDoclet Spring
- B - J2EE
- C - Maven
- D - All of the above.

**Q 10 - Which of the following is not a core component of Hibernate?**

- A - JDBC
- B - SessionFactory
- C - Session
- D - Configuration

**Q 11 - Which of the following is not a core component of Hibernate?**

- A - Transaction
- B - Provider
- C - Criteria
- D - Query

**Q 12 - Which of the following is true about configuration component of Hibernate?**

- A - The Configuration object is the first Hibernate object you create in any Hibernate application.
- B - The Configuration object is usually created only once during application initialization.
- C - The Configuration object represents a configuration or properties file required by the Hibernate.
- D - All of the above.

**Q 13 - Which of the following object is used to create SessionFactory object in hibernate?**

- A - Configuration
- B - Session
- C - SessionFactory
- D - Transaction

**Q 14 - Which of the following is true about SessionFactory object in hibernate?**

- A - SessionFactory object configures Hibernate for the application using the supplied configuration file.
- B - SessionFactory object allows for a Session object to be instantiated.
- C - The SessionFactory is a thread safe object.
- D - All of the above.

**Q 15 - Which of the following is true about SessionFactory object in hibernate?**

- A - The SessionFactory is heavyweight object.

- B - SessionFactory object is created during application start up and kept for later use.
- C - You would need one SessionFactory object per database using a separate configuration file.
- D - All of the above.

**Q 16 - Which of the following is true about Session object in hibernate?**

- A - A Session is used to get a physical connection with a database.
- B - The Session object is lightweight.
- C - Persistent objects are saved and retrieved through a Session object.
- D - All of the above.

**Q 17 - Is SessionFactory a thread-safe object?**

- A - true
- B - false

**Q 18 - Is Session a thread-safe object?**

- A - true
- B - false

**Q 19 - Which of the following is true about Transaction object in hibernate?**

- A - A Transaction represents a unit of work with the database.
- B - Transactions in Hibernate are handled by an underlying transaction manager.
- C - This is an optional object and Hibernate applications may choose not to use this interface, instead managing transactions in their own application code.
- D - All of the above.

**Q 20 - Which of the following is true about Query object in hibernate?**

- A - Query objects Hibernate Query Language *HQL* string to retrieve data from the database and create objects.
- B - Query objects SQL string to retrieve data from the database and create objects.
- C - A Query instance is used to bind query parameters, limit the number of results returned by the query, and finally to execute the query.
- D - All of the above.

**Q 21 - Which of the following is true about hibernate.dialect property in hibernate configuration?**

- A - This property makes Hibernate generate the appropriate SQL for the chosen database.
- B - This property makes Hibernate generate the appropriate java code for the chosen database.

- C - Both of the above.
- D - None of the above.

**Q 22 - Which of the following is true about transient state of a persistent entity?**

- A - A new instance of a persistent class which is not associated with a Session.
- B - A new instance of a persistent class which has no representation in the database.
- C - A new instance of a persistent class which has no identifier value.
- D - All of the above.

**Q 23 - Which of the following is true about persistent state of a persistent entity?**

- A - You can make a transient instance persistent by associating it with a Session.
- B - A persistent instance has a representation in the database.
- C - A persistent instance has an identifier value.
- D - All of the above.

**Q 24 - Which of the following is true about detached state of a persistent entity?**

- A - Once we close the Hibernate Session, the persistent instance will become a detached instance.
- B - A new instance of a persistent class which is not associated with a Session.
- C - You can make a transient instance detached by associating it with a Session.
- D - None of the above.

**Q 25 - Session.beginTransaction method begins a unit of work and returns the associated Transaction object.**

- A - true
- B - false

## ANSWER SHEET

Question Number	Answer Key
-----------------	------------

- |   |   |
|---|---|
| 1 | B |
| 2 | D |
| 3 | B |
| 4 | C |
| 5 | D |
| 6 | A |

7	D
8	C
9	D
10	A
11	B
12	D
13	A
14	D
15	D
16	D
17	A
18	B
19	D
20	D
21	A
22	D
23	D
24	A
25	A

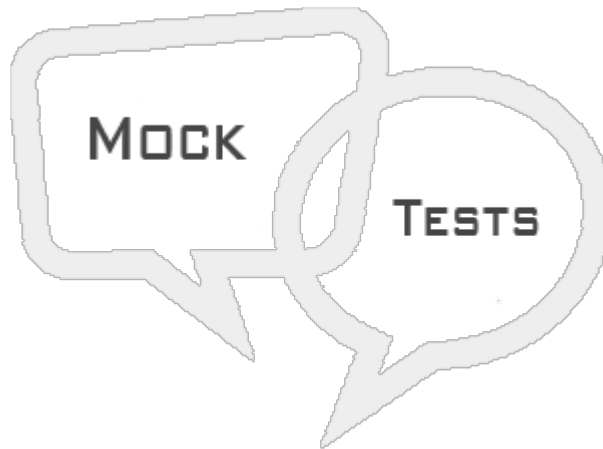
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## HIBERNATE MOCK TEST II

**Q 1 - Session.createCriteria creates a new Criteria instance, for the given entity class, or a superclass of an entity class.**

A - true

B - false

**Q 2 - Session.createQuery creates a new instance of Query for the given HQL query string.**

A - true

B - false

**Q 3 - Session.createSQLQuery creates a new instance of Query for the given HQL query string.**

A - true

B - false

**Q 4 - Session.createSQLQuery creates a new instance of Query for the given SQL query string.**

A - true

B - false

**Q 5 - Which method is used to remove a persistent instance from the datastore?**

A - Session.delete

B - Session.remove

C - Session.del

D - Session.rm

**Q 6 - Which method is used to get a persistent instance from the datastore?**

A - Session.read

B - Session.get

C - Session.retrieve

D - Session.fetch

**Q 7 - Which method is used to re-read the state of the given instance from the underlying database?**

A - Session.refresh

B - Session.get

C - Session.reload

D - Session.retrieve

**Q 8 - Which method is used to save the state of the given instance from the underlying database?**

A - Session.store

B - Session.keep

C - Session.save

D - Session.load

**Q 9 - Which method is used to update the state of the given instance from the underlying database?**

A - Session.store

B - Session.keep

C - Session.update

D - Session.load

**Q 10 - Which method is used to save or update the state of the given instance from the underlying database?**

A - Session.saveOrUpdate

B - Session.keep

C - Session.update

D - Session.load



**Q 11 - Which of the following is the root node of hbm.xml file?**

- A - hibernate-mapping
- B - hibernate-config
- C - class-mapping
- D - class-config

**Q 12 - Which of the following elements is used to define specific mappings from a Java classes to the database tables?**

- A - property
- B - hibernate-config
- C - class
- D - class-config

**Q 13 - Which of the following is true about <class> element?**

- A - The <class> elements are used to define specific mappings from a Java classes to the database tables.
- B - The Java class name is specified using the name attribute of the class element.
- C - The database table name is specified using the table attribute of the class element.
- D - All of the above.

**Q 14 - Which element of hbm.xml defines maps the unique ID attribute in class to the primary key of the database table?**

- A - id
- B - generator
- C - primaryKey
- D - None of the above.

**Q 15 - Which of the following is true about <id> element?**

- A - The <id> element maps the unique ID attribute in class to the primary key of the database table.
- B - The name attribute of the id element refers to the property in the class.
- C - The column attribute of the id element refers to the column in the database table.
- D - All of the above.

**Q 16 - Which element of hbm.xml automatically generate the primary key values?**

- A - id

- B - generator
- C - primaryKey
- D - None of the above.

**Q 17 - Which of the following is true about <generator> element?**

- A - The <generator> element within the id element is used to automatically generate the primary key values
- B - Set the class attribute of the generator element is set to native to let hibernate pick up either identity, sequence or hilo algorithm to create primary key depending upon the capabilities of the underlying database.
- C - Both of the above.
- D - None of the above.

**Q 18 - Which element of hbm.xml is used to map a Java class property to a column in the database table?**

- A - id
- B - generator
- C - property
- D - class

**Q 19 - Which of the following is true about <property> element?**

- A - The <property> element is used to map a Java class property to a column in the database table.
- B - The name attribute of the element refers to the property in the class.
- C - The column attribute of the element refers to the column in the database table.
- D - All of the above.

**Q 20 - Which of the following element maps java.util.Set property in hibernate?**

- A - <set>
- B - <list>
- C - <bag>
- D - <map>

**Q 21 - Which of the following element maps java.util.List property in hibernate?**

- A - <set>
- B - <list>
- C - <bag>

D - <map>

**Q 22 - Which of the following element maps java.util.Collection property in hibernate?**

A - <set>

B - <list>

C - <bag>

D - <map>

**Q 23 - Which of the following element maps java.util.Map property in hibernate?**

A - <set>

B - <list>

C - <bag>

D - <map>

**Q 24 - Which of the following element maps java.util.SortedMap property in hibernate?**

A - <set>

B - <list>

C - <bag>

D - <map>

**Q 25 - Which of the following element is used to represent many-to-one relationship in hibernate?**

A - <many-to-one>

B - <many-one>

C - <ManyToOne>

D - None of the above

## ANSWER SHEET

Question Number	Answer Key
-----------------	------------

1	A
---	---

2	A
---	---

3	B
---	---

4	A
---	---

5	A
---	---

6	B
7	A
8	C
9	C
10	A
11	A
12	C
13	D
14	A
15	D
16	B
17	C
18	C
19	D
20	A
21	B
22	C
23	D
24	D
25	A

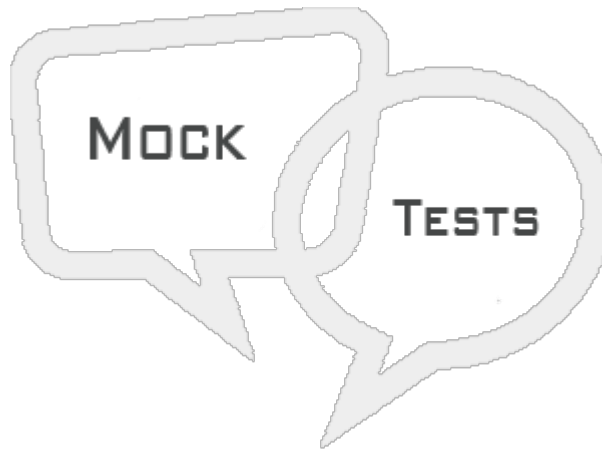
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# HIBERNATE MOCK TEST

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## HIBERNATE MOCK TEST III

**Q 1 - Which of the following element is used to represent one-to-one relationship in hibernate?**

- A - <many-to-one>
- B - <many-one>
- C - <ManyToOne>
- D - None of the above.

**Q 2 - Which of the following element is used to represent one-to-many relationship in hibernate?**

- A - <one-to-many>
- B - <one-many>
- C - <OneToMany>
- D - None of the above.

**Q 3 - Which of the following element is used to represent many-to-many relationship in hibernate?**

- A - <many-to-many>
- B - <many-many>
- C - <ManyToMany>
- D - None of the above.

**Q 4 - Which of the following element is used to represent one-to-many relationship in hibernate?**

- A - <one-to-many>
- B - <one-many>
- C - <OneToMany>
- D - None of the above.

**Q 5 - Which of the following situation represents many-to-many relationship?**

- A - An employee can have multiple certificates and same certificate can be conferred to many employees.
- B - An employee can have multiple certificates.
- C - A certificate can be conferred to many employees.
- D - All of the above.

**Q 6 - What is the difference between save and persist methods of session object?**

- A - There is no difference.
- B - save saves the object and returns status whereas persist stores status in different variable.
- C - save saves the object and returns the id of the instance whereas persist do not return anything after saving the instance.
- D - None of the above.

**Q 7 - What is the difference between get and load methods of session object?**

- A - get returns null if no data is present where as load throws ObjectNotFoundException exception in such case.
- B - get always hits the database whereas load method doesn't hit the database.
- C - get returns actual object whereas load returns proxy object.
- D - All of the above.

**Q 8 - What is lazy loading?**

- A - Lazy loading is a technique in which objects are loaded on demand basis.
- B - Lazy loading is a technique in which objects are persisted on demand basis.
- C - Both of the above.
- D - None of the above.

**Q 9 - What is value of lazy loading by default?**

- A - true
- B - false

**Q 10 - Child objects are not loaded when parent is loaded/populated from database. What this technique is called?**

- A - Eager Loading
- B - Lazy Loading
- C - Request based Loading
- D - None of the above.

**Q 11 - What HQL stands for?**

- A - Hibernate Query Language
- B - High Query Language
- C - Hybrid Query Language
- D - None of the above.

**Q 12 - Which of the following is true about HQL?**

- A - HQL takes java objects in the same way as SQL takes tables.
- B - HQL is a Object Oriented Query language
- C - HQL is database independent.
- D - All of the above.

**Q 13 - What is first level cache in hibernate?**

- A - The first-level cache is the Session based cache.
- B - The first-level cache is the SessionFactory based cache.
- C - Both of the above.
- D - None of the above.

**Q 14 - Whis of the following is true about first level cache in hibernate?**

- A - The first-level cache is the Session cache.
- B - The first-level cache is a mandatory cache through which all requests must pass.
- C - The Session object keeps an object under its own power before committing it to the database.
- D - All of the above.

**Q 15 - What is second level cache in hibernate?**

- A - The second-level cache is the SessionFactory based cache and is mainly responsible for caching objects across sessions.
- B - The second-level cache is the Session based cache.

- C - Both of the above.
- D - None of the above.

**Q 16 - Whis of the following is true about second level cache in hibernate?**

- A - The second-level cache is the SessionFactory based cache.
- B - The second-level cache can be configured on a per-class and per-collection basis.
- C - The second-level cache is mainly responsible for caching objects across sessions.
- D - All of the above.

**Q 17 - Is first level caching mandatory in hibernate?**

- A - true
- B - false

**Q 18 - Is second level caching mandatory in hibernate?**

- A - true
- B - false

**Q 19 - Is query level caching mandatory in hibernate?**

- A - true
- B - false

**Q 20 - What is Query level cache in hibernate?**

- A - The query-level cache is cache for query resultsets that integrates closely with the second-level cache.
- B - The query-level cache is the Session based cache.
- C - Both of the above.
- D - None of the above.

**Q 21 - Which of the following is true about query level cache in hibernate?**

- A - Query level cache is an optional feature.
- B - Query level cache requires two additional physical cache regions that hold the cached query results and the timestamps when a table was last updated.
- C - Query level cache is only useful for queries that are run frequently with the same parameters.
- D - All of the above.

**Q 22 - Which of the following is a concurrency strategies in hibernate?**



- A - Transactional
- B - Read-write
- C - Nonstrict-read-write.
- D - All of the above.

**Q 23 - When a Transactional concurrency strategy is to be used?**

- A - Use it for reference data only.
- B - Use this strategy for read-mostly data where it is critical to prevent stale data in concurrent transactions.
- C - Use this strategy if data hardly ever changes and a small likelihood of stale data is not of critical concern.
- D - None of the above.

**Q 24 - When a Read-write concurrency strategy is to be used?**

- A - Use it for reference data only.
- B - Use this strategy for read-mostly data where it is critical to prevent stale data in concurrent transactions.
- C - Use this strategy if data hardly ever changes and a small likelihood of stale data is not of critical concern.
- D - None of the above.

**Q 25 - When a Nonstrict-read-write concurrency strategy is to be used?**

- A - Use it for reference data only.
- B - Use this strategy for read-mostly data where it is critical to prevent stale data in concurrent transactions.
- C - Use this strategy if data hardly ever changes and a small likelihood of stale data is not of critical concern.
- D - None of the above.

## ANSWER SHEET

Question Number	Answer Key
-----------------	------------

- |   |   |
|---|---|
| 1 | A |
| 2 | A |
| 3 | A |
| 4 | A |
| 5 | A |
| 6 | C |

7	D
8	A
9	A
10	B
11	A
12	D
13	A
14	D
15	A
16	D
17	A
18	B
19	B
20	A
21	D
22	D
23	B
24	B
25	C

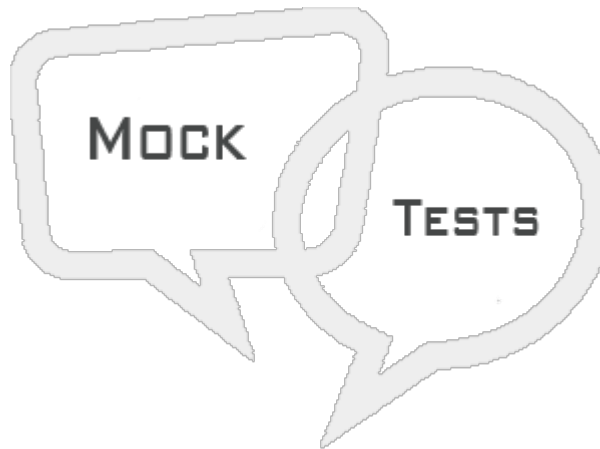
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## HIBERNATE MOCK TEST IV

### Q 1 - When a Read-only concurrency strategy is to be used?

- A - Use it for reference data only.
- B - Use this strategy for read-mostly data where it is critical to prevent stale data in concurrent transactions.
- C - Use this strategy if data hardly ever changes and a small likelihood of stale data is not of critical concern.
- D - None of the above.

### Q 2 - Which of the following is true with respect to ORM vs JDBC?

- A - ORM system lets business code access objects rather than DB tables.
- B - ORM system hides details of SQL queries from OO logic.
- C - ORM system helps in Transaction management and automatic key generation.
- D - All of the above.

### Q 3 - Which of the following is true about hibernate?

- A - Hibernate does not require an application server to operate.
- B - Hibernate manipulates Complex associations of objects of your database.
- C - Hibernate minimize database access with smart fetching strategies.
- D - All of the above.

### Q 4 - Which of the following database is not supported by Hibernate?

- A - Oracle

B - Microsoft SQL Server Database

C - FoundationDB

D - Informix Dynamic Server

**Q 5 - Which of the following database is supported by Hibernate?**

A - DB2/NT

B - PostgreSQL

C - Sybase SQL Server

D - All of the above

**Q 6 - Which of the following is a core component of Hibernate?**

A - Transaction

B - SessionFactory

C - Session

D - All of the above

**Q 7 - Configuration object is used to create SessionFactory object in hibernate.**

A - true

B - false

**Q 8 - The SessionFactory is heavyweight object.**

A - false

B - true

**Q 9 - You would need one SessionFactory object per database using a separate configuration file.**

A - false

B - true

**Q 10 - A Session is used to get a physical connection with a database.**

A - true

B - false

**Q 11 - The Session object is lightweight.**

A - false

B - true

**Q 12 - Persistent objects are saved and retrieved through a Session object.**

A - false

B - true

**Q 13 - Which of the following is true about hibernate annotations?**

A - Hibernate Annotations is the powerful way to provide the metadata for the Object and Relational Table mapping.

B - All the metadata is clubbed into the POJO java file along with the code this helps the user to understand the table structure and POJO simultaneously during the development.

C - Both of the above.

D - None of the above.

**Q 14 - Which of the following is true about @Id annotation?**

A - Hibernate detects that the @Id annotation is on a field.

B - Hibernate assumes that it should access properties on an object directly through fields at runtime.

C - Both of the above.

D - None of the above.

**Q 15 - Which of the following is true about @Entity annotation?**

A - @Entity annotation marks a class as an entity bean.

B - Class marked with @Entity annotation must have a no-argument constructor that is visible with at least protected scope.

C - Both of the above.

D - None of the above.

**Q 16 - Which of the following is true about @Table annotation?**

A - The @Table annotation allows to specify the details of the table that will be used to persist the entity in the database.

B - The @Table annotation allows to override the name of the table, its catalogue, and its schema, and enforce unique constraints on columns in the table.

C - Both of the above.

D - None of the above.

**Q 17 - Which of the following is true about @GeneratedValue annotation?**

- A - @GeneratedValue annotation takes two parameters strategy and generator.
- B - @GeneratedValue annotation provides the primary key generation strategy to be used.
- C - Both of the above.
- D - None of the above.

**Q 18 - Which of the following is true about @Column annotation?**

- A - The @Column annotation is used to specify the details of the column to which a field or property will be mapped.
- B - The @Column annotation is applied on a class.
- C - Both of the above.
- D - None of the above.

**Q 19 - name attribute of @Column annotation permits the name of the column to be explicitly specified.**

- A - true
- B - false

**Q 20 - length attribute of @Column annotation permits the size of the column used to map a value particularly for a String value.**

- A - false
- B - true

**Q 21 - nullable attribute of @Column annotation permits the column to be marked NOT NULL when the schema is generated.**

- A - true
- B - false

**Q 22 - Which of the following is true about HQL?**

- A - Hibernate Query Language *HQL* is an object-oriented query language.
- B - Instead of operating on tables and columns, HQL works with persistent objects and their properties.
- C - Both of the above.
- D - None of the above.

**Q 23 - Which of the following is true about HQL?**

- A - HQL queries are translated by Hibernate into conventional SQL queries which in turns perform action on database.

- B - The AS clause can be used to assign aliases to the classes in HQL queries.
- C - Both of the above.
- D - None of the above.

**Q 24 - Which of the following is true about HQL?**

- A - Hibernate supports named parameters in its HQL queries.
- B - HQL supports a range of aggregate methods, similar to SQL.
- C - Both of the above.
- D - None of the above.

**Q 25 - Which of the following is true about INSERT CLAUSE in HQL?**

- A - HQL supports INSERT INTO clause only where records can be inserted from one object to another object.
- B - HQL supports INSERT INTO clause without any restriction.
- C - Both of the above.
- D - None of the above.

## ANSWER SHEET

Question Number	Answer Key
-----------------	------------

1	C
2	D
3	D
4	C
5	D
6	D
7	A
8	B
9	B
10	A
11	B
12	B
13	C
14	C
15	C
16	C

17	C
18	A
19	A
20	B
21	A
22	C
23	C
24	C
25	A

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[https://www.tutorialspoint.com/hibernate/hibernate\\_mock\\_test.htm?min=51&max=75](https://www.tutorialspoint.com/hibernate/hibernate_mock_test.htm?min=51&max=75)

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1 - Which are the modules of Web layer?

- A - WebSocket, Servlet, Web, Portlet (Modules in Web Layer of Spring framework)
- B - WebSocket, Servlet, Web-MVC, Web
- C - HTML, JSP, WEB, Portlet
- D - HTML, Servlet, WEB, Portlet.

I. Web module: This provides basic web-oriented integration features.

II. Servlet module: Support for Servlet Listeners.

III. WebSocket module: Support for Web Socket style messaging.

IV. Portlet module: MVC implementation for Portlet environment.

2. How can you inject Java Collection in Spring?

- A - Using list, set, map or props tag.
- B - Using list, set, map or collection tag.
- C - Using list, set, props or collection tag.
- D - Using list, collection, map or props tag.

4 major collection types are supported:

List – <list/>

Set – <set/>

Map – <map/>

Properties – <props/>

3. Length attribute of @Column annotation permits the size of the column used to map a value particularly for a String value. (hibernate-annotations)

A - false

B – true

```
@Column(name = "id")
```

```
private int id;
```

4. How to auto-inject into a field a bean by its name?

Select one or more response.

1. With the name attribute of the @Autowired annotation

2. By using the single @Qualifier annotation

3. By using both the @Autowired and the @Qualifier spring annotations

4. By using the @Autowired annotation and naming the field with the bean name.

You can use @Qualifier along with @Autowired. In fact spring will ask you explicitly select the bean if ambiguous bean type are found, in which case you should provide the qualifier:

```
@Component
```

```
@Qualifier("staff")
```

```
public Staff implements Person {}
```

```
@Component
```

```
@Qualifier("employee")
```

```
public Manager implements Person {}
```

```

@Component
public Payroll {

    private Person person;

    @Autowired
    public Payroll(@Qualifier("employee") Person person){
        this.person = person;
    }
}

```

5. What are the modules of spring web flow?

- a. Spring-faces
- b. Spring-bundling
- c. Spring-container
- d. Spring-webflow

6. Which of the following statements are correct?

- a. Bean Factory and ApplicationContext are basic container only
- b. Bean Factory is basic container and ApplicationContext is advanced container
- c. Bean Factory and ApplicationContext are advanced container
- d. Bean Factory is advanced container and ApplicationContext is basic container

The *ApplicationContext* container includes all functionality of the *BeanFactory* container, so it is generally recommended over the *BeanFactory*.

7. Which of the following, parses in XML based on expression and its used extensively in conjugation with xstl ?

- a) JDOM parser
- b) SAX parser
- c) STAX parser
- d) Xpath parser

XML Parser provides a way to access or modify data in an XML document

8. In Spring MVC which of the following is the front controller class that initializes the context based on the spring beans configuration?

- a. org.springframework.web.servlet.DispatcherServlet
- b. org.springframework.web.context.DispatcherServlet
- c. org.springframework.web.servlet
- d. org.springframework.web.context.ApplicationContext

9. Given the following configuration class, what are correct affirmations?

```
public class ApplicationConfig {  
    private DataSource dataSource;  
    @Autowired  
    public ApplicationConfig(DataSource dataSource) {  
        this.dataSource = dataSource;  
    }  
    @Bean(name="clientRepository")  
    ClientRepository jpaClientRepository() {  
        return new JpaClientRepository();  
    }  
}
```

1. @Configuration annotation is missing
2. Default or no-arg constructor is missing
3. @Bean name is ambiguous
4. @Bean scope is prototype

Annotating a class with the **@Configuration** indicates that the class can be used by the Spring IoC container as a source of bean definitions.

The **@Bean** annotation tells Spring that a method annotated with @Bean will return an object that should be registered as a bean in the Spring application context.

10. Which of the following is NOT the type of mapping?

- a. Instance mapping
- b. Component mapping
- c. Association mapping
- d. Class mapping

11. In spring bean configuration bean attribute called 'scope' defines what kind of object has to be created and returned. What returns a new bean instance each time when required?

- a. Prototype
- b. Session
- c. Singleton
- d. Global session

12. Which of the following explains about addClass () in the listed options

jQuery addClass() Method: jQuery HTML/CSS methods

- I. This function translates a Java class name into file name
- II. This translated file name is then loaded as an input stream from the java class loader
- III. This addClass () is important if you want efficient usage of classes in your code

- a. I, II, and III
- b. I and III
- c. I and II

d. II and III

EXAMPLE:

→ Using jQuery `addClass()` method to create zebra stripes effect in HTML table:

`=>$(selector).addClass(classname,function(index,oldclass))` → SYNTAX

Index and oldclass are the 2 different classes added using `'`.

```
<script type="text/javascript"> $(function()  
{ $("table tr:nth-child(even)").addClass("striped"); });  
</script>
```

```
tr.striped { border: 1px outset silver; background-color: yellow; }
```

13. What are the benefits of Spring Framework's transaction management?

- a. It Provides a consistent programming model across different transaction APIs such as JTA, JDBC, Hibernate, JPA, and JDO.
- b. It Supports declarative transaction management.
- c. It Provides a simpler API for programmatic transaction management than a number of complex transaction APIs such as JTA.
- d. All the listed

14. The Model-View-Controller(MVC) is an architectural pattern that does not separate an application into three main logical components: the model, the view and the controller.

- a. true
- b. False.

15. The application is designed around an object model. The SQL code is generated at build time and the associations between objects are supported by the persistent mechanism, and queries are specified using an object oriented expression language. This best suited for medium-sized applications with some complex transactions. Used when the mapping exceeds 25 different database products at a time.

Which of the following is this called as?

- a. Application Object Mapping
- b. Expression object mapping
- c. Medium Object Mapping
- d. Object Mapping

16. `XsltViewResolver` supports `XsltView` by resolving the view name of which of the following options

- a) all of the listed options
- b) `VelocityView` and its subclasses
- c) URL of `xslt`
- d) view name of the URL of the report file.

use the **XsltView** and **XsltViewResolver** in order to apply a XML stylesheet (XSL) for a specific XML document, resulting in a view (typically an HTML page) transformed by the XSL document.

17. What types of views supported by spring MVC for different presentation technologies

- a) JSP
- b) HTML
- c) velocity templates
- d) select all

18. Spring is a heavy weight framework

True

False

19. A very powerful and high performance querying language used to Query, retrieve, store data in DB is

- a) PLSQL
- b) HQL
- c) SQL
- d) RDBMS

20. which is correct?

- a. Hibernate is an object oriented query language
- b. It is database independent
- c. it supports pagination
- d. HQL statements will be converted to SQL or other language the database supports
- e. all the above

21. Which of the following is true about hibernate. Dialect property in hibernate configuration?

- A - This property makes Hibernate generate the appropriate SQL for the chosen database.
- B - This property makes Hibernate generate the appropriate java code for the chosen database.
- C - Both of the above.
- D - None of the above.

Dialect means "the variant of a language". Hibernate, as we know, is database agnostic. It can work with different databases. Therefore, at some point hibernate has to use database specific SQL. Hibernate uses "dialect" configuration to know which database you are using so that it can switch to the database specific SQL generator code wherever/whenever necessary.

22. When a Read-only/non strict read-write concurrency strategy is to be used?

- A - Use it for reference data only.
- B - Use this strategy for read-mostly data where it is critical to prevent stale data in concurrent transactions.
- C - Use this strategy if data hardly ever changes and a small likelihood of stale data is not of critical concern.
- D - None of the above.

23. When a Read-write/transactional concurrency strategy is to be used?

- A - Use it for reference data only.
- B - Use this strategy for read-mostly data where it is critical to prevent stale data in concurrent transactions.
- C - Use this strategy if data hardly ever changes and a small likelihood of stale data is not of critical concern.

D - None of the above.

24. How could you externalize constants from a Spring configuration file or a Spring annotation into a properties file? Select one or more answers

1. By using the <util:constant /> tag
2. By declaring the ConstantPlaceholderConfigurer bean post processor
3. By using the <context:property-placeholder /> tag
4. By using the c: namespace

----- PropertyPlaceholderConfigurer bean in Spring's application context -----

```
<bean id="mailProperties"
      class="org.springframework.beans.factory.config.PropertyPlaceholderConfigurer">

  <property name="location" value="classpath:mail.properties" />
```

```
</bean>
```

----- mail.properties -----

```
smtp.host=smtp.gmail.com
```

```
smtp.port=587
```

```
smtp.user=tom@gmail.com
```

```
smtp.pass=secret
```

```
<bean id="mailSender" class="org.springframework.mail.javamail.JavaMailSenderImpl">
  <property name="host" value="${smtp.host}" />
  <property name="port" value="${smtp.port}" />
  <property name="username" value="${smtp.user}" />
  <property name="password" value="${smtp.pass}" />
</bean>
```

25. Does sessionLocaleResolver interceptor detects if a special parameter is present in current Http req?

TRUE

FALSE

26. What is a DispatcherServlet?

A - DispatcherServlet is used for transaction management.

B - DispatcherServlet is used for AOP.

C - DispatcherServlet handles all the HTTP requests and responses.

D - DispatcherServlet is used for Dependency injection.

27. The test module supports the testing of spring components with junit for testing

a. true

b. false

28. Which is not a module in spring framework?

a. ORM

b. DAO

- c. MVC
- d. none

28. Following class can be extended to create custom event in spring.

- A - SpringEvent
- B - Event
- C - ApplicationEvent
- D - None of above

Create an event class, *CustomEvent* by extending **ApplicationEvent**. This class must define a default constructor which should inherit constructor from ApplicationEvent class.

29. Which is the way to provide configuration metadata to spring?

- A - XML Based configuration file: All configurations are in one or multiple XML files
- B - Annotation based configuration: We still have to write XML files but just to indicate "component-scan" on the packages of annotated classes.
- C - Java based configuration (**JavaConfig**): We don't need any XML with this method of configuration. JavaConfig provides a truly object-oriented mechanism for dependency injection, meaning we can take full advantage of reusability, inheritance and polymorphism in the configuration code. Application developer has complete control over instantiation and dependency injection here.
- d – all of the above

Spring configuration metadata is to tell Spring container how to initiate, configure, wire and assemble the application specific objects.

30. What is an after returning advice? Select a unique answer.

- 1. Advice to be executed regardless of the means by which a join point exits
- 2. Advice that surrounds a method invocation and can perform custom behavior before and after the method invocation
- 3. Advice to be executed before method invocation
- 4. Advice to be executed after a join point completes without throwing an exception

After returning advice is invoked only on normal method return, not if an exception is thrown. Such advice can see the return value, but cannot change it.

org.springframework.aop  
Interface AfterReturningAdvice

31. Which of the following tools/frameworks provides integration with Hibernate?

- A - XDoclet Spring
- B - J2EE
- C - Maven
- D - All of the above.

32. Which of the following is the root node of hbm.xml file?

- A - hibernate-mapping

- B - hibernate-config
- C - class-mapping
- D - class-config

33. What is true about @Autowired annotation?

- A - The @Autowired annotation can be used to autowire bean on the setter method.
- B - This annotation provides more fine-grained control over where and how autowiring should be accomplished.
- C - The @Autowired annotation can be used to autowire bean on the methods with arbitrary names and/or multiple arguments.
- D - All of above

34. How do you turn on annotation wiring?

- A - Add <annotation-context:config /> to bean configuration.
- B - Add <annotation-config /> to bean configuration.
- C - Add <annotation-context-config /> to bean configuration.
- D - Add <context:annotation-config/> to bean configuration.

35. which of the following is an invalid annotation?

- @RequestParam
- @PathValid
- @Responsevalid
- @RequestMapping

36. Which of the following is true about Hibernate?

- A - Hibernate is an Object-Relational Mapping (ORM) solution for JAVA.
- B - Hibernate is an Object-Relational Mapping (ORM) solution for .NET
- C - Both of the above.
- D - None of the above.

37. Java based configuration option disables you to write most of your Spring configuration without XML but with the help of few Java-based annotations

- True
- False

38. What is singleton scope?

- A - This scopes the bean definition to a single instance per Spring IoC container.
- B - This scopes the bean definition to a single instance per HTTP Request.
- C - This scopes the bean definition to a single instance per HTTP Session.
- D - This scopes the bean definition to a single instance per HTTP Application/ Global session.

39. Is first level caching mandatory in hibernate?

- A - true
- B - false



40. Which tool helps to generate the mapping document Though many Hibernate users choose to write the XML by hand. select one

- a) oldgen
- b) younggen
- c) Middlegen-----ANS
- d) Mediumgen

41. ORM stands for Object-Relational Mapping (ORM) is a programming technique for converting data between relational databases. select one

- True-----Ans
- False

42. which type of annotation applies to bean property setter methods. select one

- a) @Requires
- b) @Resource
- c) @Required-----ANS
- d) @Requiring

43. Element which can be used to inject a collection of name-value pairs where the name and the value can be of any type. select one

- a) <list>
- b) <set>
- c) <map>-----ANS
- d) <props>

44. Element which can be used to inject a collection of name-value pairs where the name and the value are both Strings type. select one

- a) <list>
- b) <set>
- c) <map>
- d) <props>-----ANS

45. ApplicationContext implements which of the following interface that is used to obtain localized messages, with the actual implementation being pluggable

- I. MessageSource
- II. RequestMapping. Select One:
- a. only I-----ANS
- b. only II
- c. Neither I or II
- d. Both I and II

46. How many layers are there in Hibernate architecture. select one

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

47. What of the following is not correct in live environment? select one

- a. Constructor and properties autowiring in the same bean are not compatible

- b. A bean should have a default or a no-args constructor
- c. The <constructor-arg> tag could take type, name and index to reduce ambiguity
- d. All of the above-----ANS

48. named queries are created via which level of annotations on entities?

- a. all-level
- b. high-level
- c. low
- d. class level----- ANS

49. how many bean scopes are specified in singleton by default?

- a.6
- b.7
- c.5----- ans
- d. none

50. in controller which is responsible for rendering the page in spring mvc

- a. browser
- b. http-----ans
- c. database
- d. application

51. spring can organize which type of objects?

- a. application later-----ans
- b. database layer-----ans
- c. network-----ans
- d. browser

52. In Spring AOP, the process of linking aspect with other application types or objects to create an advice object is called **Weaving**.

53. Can you inject null and empty string values in Spring? ans: yes

54. SpEL is NOT part of core container. ANS: false (it is part of core container)

55. how many instances can be created for a global session: one

56. what display the data with help of model? Ans: View

57. How after advice works?

- A - Run advice after a method execution regardless of its outcome. -----ANS
- B - Run advice after a class loads.
- C - Run advice after http response is returned.
- D - Run advice after http request is processed.

58. What is ContextStartedEvent event?

- A - This event is published when the Servlet Context is either initialized or refreshed.

B - This event is published when the HTTP Request is received.

C - This event is published when the ApplicationContext is started using the start() method on the ConfigurableApplicationContext interface.--ANS

D - This event is published when the HTTP Response is returned.

59. Which of the following database is not supported by Hibernate?

A - DB2/NT

B - MySQL

C - FoundationDB ----ANS

D - PostgreSQL

60. What is the difference between save() and persist() methods of session object?

A - There is no difference.

B - save saves the object and returns status whereas persist stores status in different variable.

C - save saves the object and returns the id of the instance whereas persist do not return anything after saving the instance. -----ANS

D - None of the above.

61. what is required to write a basic spring program? ANS---- jdk, ide, maven, all the above

62. JDBC, ORM, OXM, JMS, Transactions are the modules of Data Access/ Integration layer. -----TRUE

63. ContextStartedEvent event is published when the ApplicationContext is started using the start () method on the ConfigurableApplicationContext interface. -----TRUE

64. singleton is the default scope of any spring bean. ----TRUE

65. ContextClosedEvent-----is published when the ApplicationContext is closed using the close() method on the ConfigurableApplicationContext interface.

66. When we work with an object oriented system, there is mismatch between the object model and the relational database. State True or False

a). TRUE-----ANS

b). FALSE

67. Form tags are available in springs is more compatible with html tags for better development. State True or False

a). TRUE-----ANS

b). FALSE

68. index and type can be used in the constructor-arg at the same time? State True or False

a). TRUE-----ANS

b). FALSE

69. the same XSD of BeanFactory can be used for View resolver interface?State True or False

a). TRUE-----ANS

b). FALSE

70. XML Mapping file offers which of the following? Select One:

- a. Readable Metadata
- b. Surrogate key generation strategy
- c. Collection metadata
- d. all the listed options-----ANS
- e. Column/Table Mapping

71. Which of the following aspects of a project can be managed using Maven?

- A - Distribution
- B - mailing list
- C - Both of the above. -----Ans
- D - None of the above.

Builds, Documentation, Reporting, Dependencies, SCMs, Releases

72. which one is incorrect?

object is the superclass of all other classes  
object does not support encapsulation-----Ans

73. where multiple components are involved in processing the request in a single transaction, which method is used to get the session object.

- a) opensession()
- b) getsession()
- c) getcurrentsession()
- d) all of the above---ans

73. which statement is not correct about HQL

- a) it is an object oriented query language
- b) it supports all types of operation i.e DML DDL FROM Hibernate 1.x to till now---ans
- c) it supports pagination
- d)HQL queries are compiled to sql of a database or any other native query language the target database supports.

74. which state does the persistent object move to when the transaction is committed and the session is closed?

- a) permanent
- b) detached---ans
- c) initial
- d) persistent

75. which hibernate property do you use to configure your chosen database.

- a) hibernate.configdatabase
- b) hibernate.changedatabase
- c) hibernate.setdatabase
- d) hibernate.dialect----ans

76. Which of the following tags generated by the form tag library compliant with XHTML-1.0-Strict specification and attendant DTD.

- "The button tag"
- "The checkbox tag"
- "The checkboxes tag"
- "The errors tag"
- "The form tag"
- "The hidden tag"
- "The input tag"
- "The label tag"
- "The option tag"
- "The options tag"
- "The password tag"
- "The radiobutton tag"
- "The radiobuttons tag"
- "The select tag"
- "The textarea tag"

77. Template engine is primarily aimed at generating which of the following XML?

- a. Java
- b. XML---ANS
- c. XHTML---ANS
- d. HTML5----ANS

78. The Spring form tag library comes bundled in spring-webmvc.jar. State True or false

- a. true----ans
- b. false

79. Which of the following tags are not available in XML schema based configuration

ANS: JDX-marsheller

80. Which of the following is not a major considerations of spring web application

- a. Interactive and Richness
- b. User-Friendly
- c. Performance
- d. Tough accessibility---ans

81. By using which of the following will return if caching is enabled?

- a. TheCache()
- b. isCache()----Ans
- c. iscacheResolved()
- d. LoadView()

82. spring security framework focuses on which of the following?

- a. providing authentication to Java applications
- b. providing authorization to Java applications
- c. providing both authentication and authorization to Java applications---ANS
- d. none of the listed options.

**Expected Questions:** -----

83. In Spring AOP, 4 type of advices are supported:

before-----Run advice before the method execution.

after-----Run advice after the method execution, regardless of its outcome.

after-returning advice-----Run advice after the method execution, only if the method completes successfully.

after-throwing advice-----Run advice after the method execution, only if the method exits by throwing an exception.

around-----Run advice before and after the advised method is invoked.

84.

**ResourceLoader support:** Spring's Resource interface use a flexible generic abstraction for handling low-level resources. An application context itself is a ResourceLoader, hence provides an application with access to deployment-specific Resource instances.

**MessageSource support:** The application context implements MessageSource, an interface used to obtain localized messages, with the actual implementation being pluggable.

85. Which of the following are the best practices for writing spring XML Configurations?

- 1) Add a header comment to each configuration file
- 2) Use consistent naming conventions
- 3) No version numbers in schema references
- 4) Prefer setter injection over constructor injection
- 5) Prefer type over index for constructor argument matching
- 6) Use shortcut forms over expanded forms
- 7) Reuse bean definitions as much as possible
- 8) Always use ids as bean identifiers
- 9) Try to avoid autowiring
- 10) Always use classpath prefix
- 11) Always externalize properties
- 12) Use dependency-check at the development phase
- 13) Do not abuse/overuse dependency injection

86. Spring framework architecture:

-----

Data Access/Integration--JDBC, ORM, OXM, JMS, Transactions  
Web(MVC/Remoting) -- WebSocket, Servlet, Web, Portlet  
AOP  
Aspects  
Instrumentation  
Messaging  
Core container--Beans, Core, Context and spEL  
Test

87.

Spring BeanFactory Container-org.springframework.beans.factory.BeanFactoryinterface.  
Spring ApplicationContext Container-org.springframework.context.ApplicationContext

#### 88. Bean Scopes:

---

Scope:	Description
--------	-------------

Singleton: This scopes the bean definition to a single instance per Spring IoC container (default).

Prototype: This scopes a single bean definition to have any number of object instances.

Request: This scopes a bean definition to an HTTP request. Only valid in the context of a web-aware Spring ApplicationContext.

Session: This scopes a bean definition to an HTTP session. Only valid in the context of a web-aware Spring ApplicationContext.

global-session: This scopes a bean definition to a global HTTP session. Only valid in the context of a web-aware Spring ApplicationContext.

#### 89. Spring-Injecting Collection:

---

Element	Description
---------	-------------

<list> ->This helps in wiring i.e., injecting a list of values, allowing duplicates.

<set> ->This helps in wiring a set of values but without any duplicates.

<map> ->This can be used to inject a collection of name-value pairs where the name and the value can be of any type.

<props> ->This can be used to inject a collection of name-value pairs where the name and the value are both Strings.

## 90. Autowiring Modes:

---

Mode	Description
<u>No</u>	=> This is a default setting which means no autowiring and you should use explicit bean reference for wiring. You have to do nothing special for this wiring. This is what you already have seen in Dependency Injection chapter.
<u>byName</u>	=> Autowiring by property name. Spring container looks at the properties of the beans on which <code>autowire</code> attribute is set to <code>byName</code> in the XML configuration file. It then tries to match and wire its properties with the beans defined by the same names in the configuration file.
<u>byType</u>	=> Autowiring by property datatype. Spring container looks at the properties of the beans on which attribute is set to <code>byType</code> in the XML configuration file. It then tries to match and wire a property if its type matches with exactly one of the beans name in the configuration file. If more than one such beans exists, a fatal exception is thrown.
<u>Constructor</u>	=> Similar to <code>byType</code> , but this type applies to constructor arguments. If there is not exactly one bean of the constructor argument type in the container, a fatal error is raised.
<u>autodetect</u>	=> Spring first tries to wire using autowire by constructor, if it does not work, Spring tries to autowire by <code>byType</code> .

## Autowiring Limitations:

---

Limitations	Description
<u>Overriding possibility</u>	-----You can still specify dependencies using <code>&lt;constructor-arg&gt;</code> and <code>&lt;property&gt;</code> settings which will always override autowiring.
<u>Primitive data types</u>	-----You cannot autowire so-called simple properties such as primitives, Strings, and Classes.
<u>Confusing nature</u>	-----Autowiring is less exact than explicit wiring, so if possible prefer using explicit wiring.

## 91.

@Required-----The `@Required` annotation applies to bean property setter methods



@Autowired----The @Autowired annotation can apply to bean property setter methods, nonsetter methods, constructor and properties.

@Qualifier----The @Qualifier annotation along with @Autowired can be used to remove the confusion by specifying which exact bean will be wired.

JSR-250 Annotations----Spring supports JSR-250 based annotations which include @Resource, @PostConstruct and @PreDestroy annotations. (Go through these annotations also)

92.

@Configuration-----indicates that the class can be used by the Spring IoC container as a source of bean definitions.

@Bean-----annotation tells Spring that a method annotated with @Bean will return an object that should be registered as a bean in the Spring application context

@Import-----annotation allows for loading @Bean definitions from another configuration class

### 93. Spring Event Handling:

-----

ContextRefreshedEvent-----This event is published when the ApplicationContext is either initialized or refreshed. This can also be raised using the refresh() method on the ConfigurableApplicationContext interface.

ContextStartedEvent-----This event is published when the ApplicationContext is started using the start() method on the ConfigurableApplicationContext interface. You can poll your database or you can restart any stopped application after receiving this event.

ContextStoppedEvent-----This event is published when the ApplicationContext is stopped using the stop() method on the ConfigurableApplicationContext interface. You can do the required housekeep work after receiving this event.

ContextClosedEvent-----This event is published when the ApplicationContext is closed using the close() method on the ConfigurableApplicationContext interface. A closed context reaches its end of life; it cannot be refreshed or restarted.

RequestHandledEvent-----This is a web-specific event telling all beans that an HTTP request has been serviced.

### 94. AOP Terminologies:

-----

Terms

Description

Aspect->This is a module which has a set of APIs providing cross-cutting requirements. For example, a logging module would be called AOP aspect for logging. An application can have any number of aspects depending on the requirement.

Join Point->This represents a point in your application where you can plug-in the AOP aspect. You can also say, it is the actual place in the application where an action will be taken using Spring AOP framework.

Advice->This is the actual action to be taken either before or after the method execution. This is an actual piece of code that is invoked during the program execution by Spring AOP framework.

Pointcut->This is a set of one or more join points where an advice should be executed. You can specify pointcuts using expressions or patterns as we will see in our AOP examples.

Introduction->An introduction allows you to add new methods or attributes to the existing classes.

Target Object->The object being advised by one or more aspects. This object will always be a proxied object, also referred to as the advised object.

Weaving->Weaving is the process of linking aspects with other application types or objects to create an advised object. This can be done at compile time, load time, or at runtime.

## 95. Custom Aspects Implementation:

---

### Approach

### Description

XML Schema based → Aspects are implemented using the regular classes along with XML based configuration.

@AspectJ based → @AspectJ refers to a style of declaring aspects as regular Java classes annotated with Java 5 annotations.

## 96. Spring Transaction Management:

---

### ACID:

Atomicity: A transaction should be treated as a single unit of operation, which means either the entire sequence of operations is successful or unsuccessful.

Consistency: This represents the consistency of the referential integrity of the database, unique primary keys in tables, etc.

Isolation: There may be many transaction processing with the same data set at the same time. Each transaction should be isolated from others to prevent data corruption.

Durability: Once a transaction has completed, the results of this transaction have to be made permanent and cannot be erased from the database due to system failure.

#### Methods and description:

-----

TransactionStatus.getTransaction(TransactionDefinition definition) → This method returns a currently active transaction or creates a new one, according to the specified propagation behavior.

void commit(TransactionStatus status) → This method commits the given transaction, with regard to its status.

void rollback(TransactionStatus status) → This method performs a rollback of the given transaction.

int getPropagationBehavior() → This method returns the propagation behavior. Spring offers all of the transaction propagation options familiar from EJB CMT.

int getIsolationLevel() → This method returns the degree to which this transaction is isolated from the work of other transactions.

String getName() → This method returns the name of this transaction.

int getTimeout() → This method returns the time in seconds in which the transaction must complete.

boolean isReadOnly() → This method returns whether the transaction is read-only.

#### 97. isolation levels:

-----

TransactionDefinition.ISOLATION\_DEFAULT→This is the default isolation level.

TransactionDefinition.ISOLATION\_READ\_COMMITTED→Indicates that dirty reads are prevented; non-repeatable reads and phantom reads can occur.

TransactionDefinition.ISOLATION\_READ\_UNCOMMITTED→Indicates that dirty reads, non-repeatable reads, and phantom reads can occur.

TransactionDefinition.ISOLATION\_REPEATABLE\_READ→Indicates that dirty reads and non-repeatable reads are prevented; phantom reads can occur.

TransactionDefinition.ISOLATION\_SERIALIZABLE →Indicates that dirty reads, non-repeatable reads, and phantom reads are prevented.

## 98. Propagation types:

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TransactionDefinition.PROPROPAGATION\_MANDATORY→ Supports a current transaction; throws an exception if no current transaction exists.

TransactionDefinition.PROPROPAGATION\_NESTED→Executes within a nested transaction if a current transaction exists.

TransactionDefinition.PROPROPAGATION\_NEVER→ Does not support a current transaction; throws an exception if a current transaction exists.

TransactionDefinition.PROPROPAGATION\_NOT\_SUPPORTED→Does not support a current transaction; rather always execute nontransactionally.

TransactionDefinition.PROPROPAGATION\_REQUIRED→Supports a current transaction; creates a new one if none exists.

TransactionDefinition.PROPROPAGATION\_REQUIRES\_NEW →Creates a new transaction, suspending the current transaction if one exists.

TransactionDefinition.PROPROPAGATION\_SUPPORTS→Supports a current transaction; executes non-transactionally if none exists.

TransactionDefinition.TIMEOUT\_DEFAULT→Uses the default timeout of the underlying transaction system, or none if timeouts are not supported.

## 100. There are four fetching strategies

1. fetch- "join" = Disable the lazy loading, always load all the collections and entities.

2. fetch- "select" (default) = Lazy load all the collections and entities.
3. batch- size = " N" = Fetching up to 'N' collections or entities, \*Not record\*.
4. fetch- "subselect" = Group its collection into a sub select statement.

---

Topics to read:

- \* HQL
- \*Tools in hibernate
- \*Interceptors in hibernate
- \*Annotations in both spring and hibernate
- \*specifications for Java API (e.g.: JSR-250, JSR-303)
- \*Interfaces and classes in both spring and hibernate (e.g.: ViewResolver is an interface)
- \*Mapping in hibernate (e.g.: Middlegen is a tool)

1. different fetching strategy of hibernate?
2. what are the aspects project manager using maven?

Distribution

mailing list

address list

3. what are the different presentation technique?

Jsp, lotusnotes, HTML

4. how to disable the second cache?

Q 1 - Which of the following is correct about dependency injection?

A - It helps in decoupling application objects from each other.

B - It helps in deciding the dependencies of objects.

C - It stores objects states in database.

D - It stores object states in file system.

Q 2 - Which of the following stands true for spring beans?

A - Spring beans are managed by the Spring IoC container.

B - Spring beans are instantiated, assembled, and otherwise managed by a Spring IoC container.

C - Spring beans are simple POJOs.

D - All of the above.

Q 3 - What is true about <list> collection configuration elements?

A - This helps in wiring a list of values, allowing duplicates.

B - This helps in wiring a list of values but without any duplicates.

C - This can be used to inject a collection of name-value pairs where name and value can be of any type.

D - This can be used to inject a collection of name-value pairs where the name and value are both Strings.

Q 4 -Can you inject null and empty string values in Spring?

A - Yes

B - No

Q 5 - What is Advice?

A - This is the way to instruct object to behave in certain manner.

B - This is used to inject values in objects.

C - This is the actual action to be taken either before or after the method execution.

D - This is not invoked during program execution by Spring AOP framework.

Q 6 - What is Introduction?

A - An introduction represents a point in your application where you can plug-in AOP aspect.

B - This is used to inject values in objects.

C - This is not invoked during program execution by Spring AOP framework.

D - An introduction allows you to add new methods or attributes to existing classes.

Q 7 - How to use ref keyword in beans.xml?

A - Using setter method only.

B - Using constructor argument only.

C - Using setter method and constructor argument both.

D - None of the above.

Q 8 - By default a bean is eagerly loaded.

A - False

B - True

Q 9 - A bean must have id attribute in beans configuration file.

A - True

B - False

Q 10 - What is a DispatcherServlet?

A - DispatcherServlet is used for transaction management.

B - DispatcherServlet is used for AOP.

C - DispatcherServlet handles all the HTTP requests and responses.

D - DispatcherServlet is used for Dependency injection.

Q 11 - Which of the statement is not correct?

A - Core and beans modules provide the fundamental parts of the framework, including Dependency Injection feature.

B - The SpEL module provides a powerful Expression Language for querying and manipulating an object graph at runtime.

C - Aspects module provides integration with AspectJ.

D - None of the above.

Q 12 - What is singleton scope?

A - This scopes the bean definition to a single instance per Spring IoC container.

B - This scopes the bean definition to a single instance per HTTP Request.

C - This scopes the bean definition to a single instance per HTTP Session.

D - This scopes the bean definition to a single instance per HTTP Application/ Global session.

Q 13 - What is ContextClosedEvent event?

A - This event is published when the Servlet Context is either initialized or refreshed.

B - This event is published when the HTTP Request is received.

C - This event is published when the HTTP Response is returned.

D - This event is published when the ApplicationContext is closed using the close() method on the ConfigurableApplicationContext interface.

Q 14 - What is Weaving?

A - Weaving is the process of injecting values in objects to create an advised object.

B - Weaving is the process of linking aspects with other application types or objects to create an advised object.

C - This is used to inject values in objects.

D - Weaving is used to check object dependencies.

Q 15 - Which ORM Spring supports ?

A - Hibernate

B - iBatis

C - JPA

D - All of above.



Q 16 - What stands true for spring framework?

A - Spring framework is a light weight framework.

B - Spring framework is a heavy weight framework.

Q 17 - How to handle shut down of IoC container?

A - Using shutdownHook()

B - Using shutdownHandler()

C - Using registerHook()

D - Using registerShutdownHook()

Q 18 - Which of the following class can be used to execute Sql queries in spring?

B - JDBCHelper

A - JdbcTemplate

C - DBHelper

D - DBTemplate

Q 19 - Which is the correct implementation class of BeanFactory?

A - XmlBeanFactory

B - ClassPathBeanFactory

C - FileSystemBeanFactory

D - AdvancedBeanFactory

Q 20 - What is bean autowiring?

A - Autowiring lets Spring resolve collaborators (other beans) for your bean by inspecting the contents of the BeanFactory without using <constructor-arg> and <property> elements.

B - Autowiring injects values in spring beans.

C - Autowiring injects one bean into another.

D - Autowiring helps in wiring a list of values, allowing duplicates.

Q 21 - How to get object of a service in spring framework?

A - Using new keyword

B - Using dependency injection

Q 22 - If a bean is scoped to HTTP request, scope is

A - session

B - global-session

C - prototype

D - request

Q 23 - Can be bean be configured to have an inner bean?

A - True

B - False

Q 24 - Which are the modules of Web layer?

A - WebSocket, Servlet, Web, Portlet

B - WebSocket, Servlet, Web-MVC, Web

C - HTML, JSP, WEB, Portlet

D - HTML, Servlet, WEB, Portlet

Q 25 - What is global-session scope?

A - This scopes a bean definition to an HTTP Application/ Global session.

B - This scopes the bean definition to Spring IoC container.

C - This scopes the bean definition to HTTP request.

D - This scopes the bean definition to HTTP Session.

Q 26 - What is Target object?

A - A represents a object in your application where you can plug-in AOP aspect.

B - The object being advised by one or more aspects, this object will always be a proxy object, also referred to as the advised object.

C - This is used to inject values in objects.

D - This is not invoked during program execution by Spring AOP framework.

Q 27 - Core container has AOP as one of its module.

A - True

B - False

Q 28 - Which class is used to map a database row to a java object in spring?

A - ResultSet

B - RowMapper

C - RowSetMapper

D - ResultSetMapper

Q 29 - Which are the modules of Data Access/ integration layer?

A - JDBC, ORM, OXM, JMS, Transactions

B - JDBC, ORM, OXM, JMS

C - JDBC, ORM, Web, Beans

D - JDBC, ORM, OXM, JMS

Q 30 - Which of the statement is correct?

A - The JDBC module provides a JDBC-abstraction layer that removes the need to do tedious JDBC related coding.

B - The ORM module provides integration layers for popular object-relational mapping APIs, including JPA, JDO, Hibernate, and iBatis.

C - The Java Messaging Service JMS module contains features for producing and consuming messages.

D - All of the above.

Q 31 - What is true about <map> collection configuration elements?

A - This helps in wiring a list of values, allowing duplicates.

B - This helps in wiring a list of values but without any duplicates.

C - This can be used to inject a collection of name-value pairs where name and value can be of any type.

D - This tag is not supported.

Q 32 - What is true about @Autowired annotation?

A - The @Autowired annotation can be used to autowire bean on the setter method.

B - This annotation provides more fine-grained control over where and how autowiring should be accomplished.

C - The @Autowired annotation can be used to autowire bean on the methods with arbitrary names and/or multiple arguments.

D - All of above.

Q 33 - How do you turn on annotation wiring?

A - Add <annotation-context:config /> to bean configuration.

B - Add <annotation-config /> to bean configuration.

C - Add <annotation-context-config /> to bean configuration.

D - Add <context:annotation-config/> to bean configuration.

Q 34 - How after-throwing advice works?

A - Run advice after a method execution only if method exits by throwing an exception.

B - Run advice after a class loads only if class throws exception during load time.

C - Run advice after http response is returned with error status.

D - Run advice after http request is processed and an exception occurred.

Q 35 - Expression Language/ SpEL was introduced in which version of spring framework.

A - 1.0

B - 2.0

C - 3.0

D - 4.0

Q 36 - Can we inject value and ref both together in a bean?

A - True

B - False

Q 37 - What is true about <set> collection configuration elements?

A - This helps in wiring a list of values, allowing duplicates.

B - This helps in wiring a list of values but without any duplicates.

C - This can be used to inject a collection of name-value pairs where name and value can be of any type.

D - This can be used to inject a collection of name-value pairs where the name and value are both Strings.

Q 38 - What are the different points where weaving can be applied?

A - Compile time, load time

B - Compile time, run time

C - Run time

D - Compile time, load Time, Run time

Q 39 - Which of the following is part of Data Access layer in Spring framework?

A - Beans

B - Aspects

C - JMS

D - Context

Q 40 - What BeanPostProcessor does?

A - It processes beans once a bean is initialized.

B - It defines callback methods that you can implement to provide your own instantiation logic, dependency-resolution logic etc.

C - It processes beans once a bean is loaded.

D - It processes beans once a bean exits.

Q 41 - Which are the IoC containers in Spring?

A - BeanFactory, ApplicationContext

B - BeanFactory, ApplicationContext, locContextFactory

C - BeanFactory, BeanContext, locContextFactory

D - BeanFactory, ApplicationContext, BeanContext

Q 42 - What is no mode of autowiring?

A - Default setting which means no autowiring and you should use explicit bean reference for wiring.

B - Autowiring by property name.

C - Spring first tries to wire using autowire by constructor, if it does not work, Spring tries to autowire by byType.

D - Similar to byType, but type applies to constructor arguments.

Q 43 - What is ContextRefreshedEvent event?

A - This event is published when the Servlet Context is either initialized or refreshed.

B - This event is published when the HTTP Request is received.

C - This event is published when the HTTP Response is returned.

D - This event is published when the ApplicationContext is either initialized or refreshed.

Q 44 - How after-returning advice works?

A - Run advice after a class loads only if class loads successfully.

B - Run advice after a method execution only if method completes successfully.

C - Run advice after http response is returned only if http response is success.

D - Run advice after http request is processed with no exception.

Q 45 - What are the types of the transaction management Spring supports?

A - Programmatic transaction management

B - Declarative transaction management

C - Both of above.

D - None of above.

Q 46 - What is true about cross-cutting concerns?

A - The functions that span multiple points of an application are called cross cutting concerns.

B - Cross-cutting concerns are conceptually separate from the application's business logic.

C - Logging is one of the examples of cross cutting concerns.

D - All of the above.

Q 47 - Which is the way to provide configuration metadata to spring?

A - XML Based configuration file.

B - Annotation based configuration.

C - Java based configuration.

D - All of the above.

Q 48 - What is true about <props> collection configuration elements?

A - This helps in wiring a list of values, allowing duplicates.



B - This helps in wiring a list of values but without any duplicates.

C - This can be used to inject a collection of name-value pairs where name and value can be of any type.

D - This can be used to inject a collection of name-value pairs where the name and value are both Strings.

Q 49 - What is byType mode of autowiring?

A - Default setting which means no autowiring and you should use explicit bean reference for wiring.

B - Autowiring by property name. Spring tries to match and wire its properties with the beans defined by the same names in the configuration file.

C - Spring first tries to wire using autowire by constructor, if it does not work, Spring tries to autowire by byType.

D - Autowiring by property type. Spring tries to match and wire a property if its type matches with exactly one of the beans name in configuration file.

Q 50 - What is Join point?

A - This represents a point in your application which joins two objects.

B - This represents a point in your object where you join values.

C - This represents a point in your object where you join injected values.

D - This represents a point in your application where you can plug-in AOP aspect.

Q 51 - What are the ways to access Hibernate by using Spring?

A - Inversion of Control with a Hibernate Template and Callback.

B - Extending HibernateDAOsupport and Applying an AOP Interceptor node.

C - Both of above.

D - None of above.

Q 52 - SpEL is part of core container.

A - False

B - True

Q 53 - If a bean can be created any number of times, scope is

A - session

B - global-session

C - prototype

D - request

Q 54 - What is spring?

A - Spring is an open source development framework for enterprise Java.

B - Spring is a proprietary framework.

C - Spring is a development framework for .Net applications.

D - Spring is a development framework for PHP based applications.

Q 55 - What is prototype scope?

A - This scopes a single bean definition to have any number of object instances.

B - This scopes the bean definition to a single instance per HTTP Request.

C - This scopes the bean definition to a single instance per HTTP Session.

D - This scopes the bean definition to a single instance per HTTP Application/ Global session.

Q 56 - What does @Required annotation mean?

A - This annotation indicates that bean property must be populated by the user.

B - This annotation indicates that bean property is required while saving the bean data to database.

C - This annotation simply indicates that the affected bean property must be populated at configuration time, through an explicit property value in a bean definition or through autowiring.

D - This annotation indicates that bean property is required while serializing the bean.

Q 57 - How before advice works?

A - Run advice before a class loads.

B - Run advice before a method execution.

C - Run advice before http response is to be returned.

D - Run advice before http request is to be processed.

Q 58 - Which of the following database is not supported using jdbcTemplate?

A - MySql

B - PostgreSQL

C - NoSql

D - Oracle

Q 59 - What is the scope of stateless bean?

A - global-session

B - singleton

C - prototype

D - request

Q 60 - Which are the modules of core container?

A - Beans, Core, Context, SpEL

B - Core, Context, ORM, Web

C - Core, Context, Aspects, Test

D - Bean, Core, Context, Test

Q 61 - How can you inject Java Collection in Spring?

A - Using list, set, map or props tag.

B - Using list, set, map or collection tag.

C - Using list, set, props or collection tag.

D - Using list, collection, map or props tag.

Q 62 - What is aspect?

A - Aspect is a way to do the dependency injection.

B - A module which has a set of APIs providing cross-cutting requirements.

C - Aspect is used to log information of application.

D - Aspect represents properties of spring based application.

Q 63 - What are the types of advice?

A - then, after, after-returning, after-throwing, around

B - When, after, after-returning, around

C - Where, after, after-returning, after-throwing, around

D - Before, after, after-returning, after-throwing, around

Q 64 - Can we integrate Struts with Spring.

A - Yes

B - No

Q 65 - Which are the different modes of autowiring?

A - no, byName, byType, constructor, autodetect

B - no, byName, byType, constructor, autocorrect

C - byName, byContent, constructor, autodetect

D - byName, byContent, setter, autodetect

Q 66 - By default a bean is eagerly loaded.

A - False

B - True

Q 67 - Where do you define DispatcherServlet?

A - In Beans configuration file.

B - Web.xml file

C - Meta-inf/dispatcher.xml

D - Web-inf/ dispatcher.xml

Q 68 - How after advice works?

A - Run advice after a method execution regardless of its outcome.

B - Run advice after a class loads.

C - Run advice after http response is returned.

D - Run advice after http request is processed.

Q 69 - What is true about BeanPostProcessor?

A - It is a concrete class.

B - It is an interface.

C - It is an abstract class.

D - None of the above.

Q 70 - What is ContextStartedEvent event?

A - This event is published when the Servlet Context is either initialized or refreshed.

B - This event is published when the HTTP Request is received.

C - This event is published when the ApplicationContext is started using the start() method on the ConfigurableApplicationContext interface.

D - This event is published when the HTTP Response is returned.

Q 71 - What is Spring MVC framework?

A - Spring MVC framework is Model-Value-Class architecture and used to bind model data with values.

B - The Spring web MVC framework provides model-view-controller architecture and ready components that can be used to develop flexible and loosely coupled web applications.

C - Spring MVC framework is used for Transaction management for Web Applications.

D - Spring MVC framework is used for AOP for Web Applications.

Q 72 - What is @Controller annotation?

A - The @Controller annotation indicates that a particular class serves the role of a controller.

B - The @Controller annotation indicates how to control the transaction management.

C - The @Controller annotation indicates how to control the dependency injection.

D - The @Controller annotation indicates how to control the aspect programming.

Q 73 - What is ACID in transactional management?

A - Accurate, Controlled, Isolation, Durability

B - Atomicity, Consistency, Independent, Done

C - Atomicity, Consistency, Isolation, Durability

D - Accurate, Controlled, Independent, Done

Q 74 - What is RequestHandledEvent:event?

A - This event is published when the Servlet Context is either initialized or refreshed.

B - This event is published when the HTTP Request is received.

C - This event is published when the HTTP session is initialized or refreshed.

D - This event is published when the HTTP Request is serviced.

Q 75 - Which of the following stands true for spring beans?

A - Spring beans are managed by the Spring IoC container.

B - Spring beans are instantiated, assembled, and otherwise managed by a Spring IoC container.

C - Spring beans are simple POJOs.

D - All of the above.

Q 76 - What is default scope of bean in Spring framework?

A - singleton

B - prototype

C - request

D - session

Q 77 - What is the scope of bean in portlet context?

A - session

B - global-session

C - prototype

D - request

Q 78 - Following class can be extended to create custom event in spring.

A - SpringEvent

B - Event

C - ApplicationEvent

D - None of above

Q 79 - What is autodetect mode of autowiring?

A - Similar to byType, but type applies to constructor arguments. If there is not exactly one bean of the constructor argument type in the container, a fatal error is raised.

B - Autowiring by property name. Spring tries to match and wire its properties with the beans defined by the same names in the configuration file.

C - Spring first tries to wire using autowire by constructor, if it does not work, Spring tries to autowire by byType.

D - Autowiring by property type. Spring tries to match and wire a property if its type matches with exactly one of the beans name in configuration file.

Q 80 - What is Pointcut?



A - This represents a point in your application where you can plug-in AOP aspect.

B - This is a set of one or more joinpoints where an advice should be executed.

C - This is used to inject values in objects.

D - This is invoked during program execution by Spring AOP framework.

Q 81 - Which class acts as IoC Container?

A - ServletContext

B - DispatcherServlet

C - ApplicationContext

D - None of the above

Q 82 - What is constructor mode of autowiring?

A - Autowiring by property name. Spring tries to match and wire its properties with the beans defined by the same names in the configuration file.

B - Spring first tries to wire using autowire by constructor, if it does not work, Spring tries to autowire by byType.

C - Autowiring by property type. Spring tries to match and wire a property if its type matches with exactly one of the beans name in configuration file.

D - Similar to byType, but type applies to constructor arguments. If there is not exactly one bean of the constructor argument type in the container, a fatal error is raised.

Q 83- How bean life cycle can be controlled?

A - Using init() only

B - Using InitializingBean class only

C - Using DisposableBean class only

D - Using All of above

Q 84 - Which of the following class can be used to call Stored Procedures in spring?

A - SPHelper

B - JdbcTemplateCall

C - JdbcTemplate

D - SimpleJdbcCall

Q 85 - Which are the correct implementation classes of ApplicationContext?

A - FileSystemXmlApplicationContext, ClassPathXmlApplicationContext, WebXmlApplicationContext

B - FileSystemApplicationContext, ClassPathApplicationContext, WebApplicationContext

C - AdvancedApplicationContext, FileApplicationContext

D - FileSystemApplicationContext, ClassPathApplicationContext

Q 86 - How around advice works?

A - Run advice before and after the advised method is invoked.

B - Run advice before and after a class is loaded.

C - Run advice before and after http response is returned.

D - Run advice before and after http request is processed.

Q 87 - Which of the following is correct assertion about spring?

A - Spring enables developers to develop enterprise-class applications using POJOs.

B - Spring is organized in a modular fashion.

C - Testing an application written with spring is simple because environment-dependent code is moved into this framework.

D - All of above.

1) Given the following configuration class, what are correct affirmations? Select one or more answers.

```
public class ApplicationConfig {  
    private DataSource dataSource;  
    @Autowired  
    public ApplicationConfig(DataSource dataSource) {  
        this.dataSource = dataSource;  
    }  
    @Bean(name="clientRepository")  
    ClientRepository jpaClientRepository() {  
        return new JpaClientRepository();  
    }  
}
```

1. @Configuration annotation is missing-----ANS
2. Default or no-arg constructor is missing-----ANS
3. @Bean name is ambiguous
4. @Bean scope is prototype

2) <id name="deptId" type="string">  
<column name="columnid" length="30"/>  
<generators/>  
</id/>  
[/xml]

The above is an example of creating which key?

Select One:

- a. DB key
- b. Unique key
- c. Secondary key
- d. Primary key-----ANS

3) ApplicationContext implements which of the following interface that is used to obtain localized messages, with the actual implementation being pluggable

- I. MessageSource
- II. RequestMapping

Select One:

- a. only I-----ANS
- b. only II
- c. Neither I or II
- d. Both I and II

4). Which of the following is a many to one relationship

- a) many-to-one
  - b) <many-to-one>-----ANS
  - c) None of the list
  - d) <Manyone>
- 

5)What of the following is not correct in live environment?

select one

- a. Constuctor and properties autowiring in the same bean are not compatible
  - b. A bean should have a default or a no-args constructor
  - c. The <constructor-arg> tag could take type, name and index to reduce ambiguity
  - d. All of the above-----ANS(not sure)
- 

6)Which of the following is not available in HQL

select one

- a) Select
  - b)Where
  - c)Sub-----Ans(not sure)
  - d)Having
- 

7)maven is a project management and comprehension too

select one

- True-----Ans
  - False
- 

8)How many layers are there in Hibernate architechture

select one

- a)3-----Ans(not sure)
  - b)4
  - c)5
  - d)2
- 

9)Beans,Core, Context,spEL are the components in Core container

select one

- True-----Ans
  - False
- 

10) PROPAGATION\_REQUIRES\_NEW

Ans: Creates a new transaction, suspending the current transaction if one exists.

---

11)Element which can be used to inject a collection of name-value pairs where the name and the value can be of any type.

select one

- a)<list>
- b)<set>
- c)<map>-----ANS

d)<props>

---

12)Element which can be used to inject a collection of name-value pairs where the name and the value are both Strings type.

select one

a)<list>

b)<set>

c)<map>

d)<props>-----ANS

---

13)which type of annotation applies to bean property setter methods

select one

a)@Requires

b)@Resource

c)@Required-----ANS

d)@Requiring

---

14)ORM stands for Object-Relational Mapping (ORM) is a programming technique for converting data between relational databases.

select one

True-----Ans

False

---

15)Which tool helps to generate the mapping document Though many Hibernate users choose to write the XML by hand

select one

a)oldgen

b)younggen

c)Middlegen-----ANS

d) Mediumgen

---

16)Java based configuration option disables you to write most of your Spring configuration without XML but with the help of few Java-based annotations

select one

True

False-----Ans

---

-

17) What types of views supported by spring MVC for different presentation technologies

select one or more

a)JSP

b)HTML

c)velocity templates

d)

Ans: select all

---

18)Spring is a heavy weight framework

select one

True

False-----Ans

---

19)A very powerful and high performance querying language used to Query, retrieve, store data in DB is

select one

a)PLSQL

b)HQL-----ANS(not sure)

c)SQL

d)RDBMS

---

20)which of the following options about Auto wiring in spring are correct?

I. The Auto wiring in spring framework can be performed by configuring in xml and spring Auto-Wiring with Annotation @Autowired

II. Auto-wiring beans with xml configuration: In Spring framework, you can wire beans automatically with auto wiring feature

III. To enable auto-wiring just define the "autowire" attribute in <bean> tag.

Select One:

a.I, II, and III-----ANS

b.I and III

c.I and II

d.II and III

---

Topics to read:

\* HQL

\*Tools in hibernate

\*Interceptors in hibernate

\*Annotations in both spring and hibernate

\*specifications for Java API (eg:JSR-250,JSR-303)

\*Interfaces and classes in both spring and hibernate(eg: ViewResolver is a interface)

\*Mapping in hibernate(eg: Middlegen is a tool)

Q 1 - What ORM stands for?

A - Object Relation Map

B - Object Relational Mapping

C - Object Record Mapping

D - None of the above.

Q 2 - Which of the following is true about configuration component of Hibernate?

A - The Configuration object is the first Hibernate object you create in any Hibernate application.

B - The Configuration object is usually created only once during application initialization.

C - The Configuration object represents a configuration or properties file required by the Hibernate.

D - All of the above.

Q 3 - Session.createQuery creates a new instance of Query for the given HQL query string.

A - true

B - false

Q 4 - Which element of hbm.xml defines maps the unique ID attribute in class to the primary key of the database table?

A - id

B - generator

C - primaryKey

D - None of the above.

Q 5 - Which of the following element maps java.util.SortedMap property in hibernate?

A - <set>

B - <list>

C - <bag>

D - <map>

Q 6 - What is lazy loading?

A - Lazy loading is a technique in which objects are loaded on demand basis.

B - Lazy loading is a technique in which objects are persisted on demand basis.

C - Both of the above.

D - None of the above.

Q 7 - What is first level cache in hibernate?

A - The first-level cache is the Session based cache.

B - The first-level cache is the SessionFactory based cache.

C - Both of the above.

D - None of the above.

Q 8 - When a Transactional concurrency strategy is to be used?

A - Use it for reference data only.

B - Use this strategy for read-mostly data where it is critical to prevent stale data in concurrent transactions.

C - Use this strategy if data hardly ever changes and a small likelihood of stale data is not of critical concern.

D - None of the above.

Q 9 - Which of the following is a core component of Hibernate?

A - Transaction

B - SessionFactory

C - Session

D - All of the above



Q 10 - Which of the following is true about @GeneratedValue annotation?

- A - @GeneratedValue annotation takes two parameters strategy and generator.
- B - @GeneratedValue annotation provides the primary key generation strategy to be used.
- C - Both of the above.
- D - None of the above.

Q 11 - Which of the following is not an ORM framework?

- A - Castor
- B - Spring DAO
- C - Hibernate
- D - NoSQL

Q 12 - Which of the following is true about SessionFactory object in hibernate?

- A - The SessionFactory is heavyweight object.
- B - SessionFactory object is created during application start up and kept for later use.
- C - You would need one SessionFactory object per database using a separate configuration file.
- D - All of the above.

Q 13 - Which of the following is true about transient state of a persistent entity?

- A - A new instance of a persistent class which is not associated with a Session.
- B - A new instance of a persistent class which has no representation in the database.
- C - A new instance of a persistent class which has no identifier value.
- D - All of the above.

Q 14 - Which method is used to re-read the state of the given instance from the underlying database?

A - Session.refresh()

B - Session.get()

C - Session.reload()

D - Session.retrieve()

Q 15 - Which of the following element maps java.util.List property in hibernate?

A - <set>

B - <list>

C - <bag>

D - <map>

Q 16 - Child objects are not loaded when parent is loaded/populated from database. What this technique is called?

A - Eager Loading

B - Lazy Loading

C - Request based Loading

D - None of the above.

Q 17 - What HQL stands for?

A - Hibernate Query Language

B - High Query Language

C - Hybrid Query Language

D - None of the above.

Q 18 - Which of the following database is not supported by Hibernate?

A - Oracle

B - Microsoft SQL Server Database

C - FoundationDB

D - Informix Dynamic Server

Q19 - A Session is used to get a physical connection with a database.

A - true

B - false

Q20 - Which of the following is true about HQL?

A - Hibernate supports named parameters in its HQL queries.

B - HQL supports a range of aggregate methods, similar to SQL.

C - Both of the above.

D - None of the above.

Q21 - Which of the following is true about Hibernate?

A - Hibernate is an Object-Relational Mapping(ORM) solution for JAVA.

B - Hibernate is an Object-Relational Mapping(ORM) solution for .NET

C - Both of the above.

D - None of the above.

Q22 - Which of the following is true about hibernate.dialect property in hibernate configuration?

A - This property makes Hibernate generate the appropriate SQL for the chosen database.

B - This property makes Hibernate generate the appropriate java code for the chosen database.

C - Both of the above.

D - None of the above.

Q23 - Which method is used to save the state of the given instance from the underlying database?

A - Session.store()

B - Session.keep()

C - Session.save()

D - Session.load()

Q 24 - Which of the following element maps java.util.Map property in hibernate?

A - <set>

B - <list>

C - <bag>

D - <map>

Q 25 - What is Query level cache in hibernate?

A - The query-level cache is cache for query resultsets that integrates closely with the second-level cache.

B - The query-level cache is the Session based cache.

C - Both of the above.

D - None of the above.

Q 26 - Which of the following is a concurrency strategies in hibernate?

A - Transactional

B - Read-write

C - Nonstrict-read-write.

D - All of the above.

Q 27 - Which of the following is true about @Id annotation?

A - Hibernate detects that the @Id annotation is on a field.

B - Hibernate assumes that it should access properties on an object directly through fields at runtime.

C - Both of the above.

D - None of the above.

Q 28 - Which of the following is true about HQL?

A - HQL queries are translated by Hibernate into conventional SQL queries which in turns perform action on database.

B - The AS clause can be used to assign aliases to the classes in HQL queries.

C - Both of the above.

D - None of the above.

Q 29 - Which of the following is true about ORM?

A - ORM stands for Object-Relational Mapping.

B - ORM is a programming technique for converting data between relational databases.

C - Both of the above.

D - None of the above.

Q 30 - Which of the following is true about Query object in hibernate?

A - Query objects Hibernate Query Language (HQL) string to retrieve data from the database and create objects.

B - Query objects SQL string to retrieve data from the database and create objects.

C - A Query instance is used to bind query parameters, limit the number of results returned by the query, and finally to execute the query.

D - All of the above.

Q 31 - Session.createQuery creates a new instance of Query for the given SQL query string.

A - true

B - false

Q 32 - Which method is used to get a persistent instance from the datastore?

A - Session.read()

B - Session.get()

C - Session.retrieve()

D - Session.fetch()

Q 33 - Which of the following is true about <generator> element?

A - The <generator> element within the id element is used to automatically generate the primary key values

B - Set the class attribute of the generator element is set to native to let hibernate pick up either identity, sequence or hilo algorithm to create primary key depending upon the capabilities of the underlying database.

C - Both of the above.

D - None of the above.

Q 34- Which of the following element is used to represent one-to-many relationship in hibernate?

A - <one-to-many>

B - <one-many>

C - <OneToMany>

D - None of the above.

Q 35- Is query level caching mandatory in hibernate?

A - true

B - false

Q 36 - When a Read-only concurrency strategy is to be used?

A - Use it for reference data only.

B - Use this strategy for read-mostly data where it is critical to prevent stale data in concurrent

transactions.

C - Use this strategy if data hardly ever changes and a small likelihood of stale data is not of critical concern.

D - None of the above.

Q 37 - Which of the following is true about hibernate annotations?

A - Hibernate Annotations is the powerful way to provide the metadata for the Object and Relational Table mapping.

B - All the metadata is clubbed into the POJO java file along with the code this helps the user to understand the table structure and POJO simultaneously during the development.

C - Both of the above.

D - None of the above.

Q 38 - Which of the following is not a core component of Hibernate?

A - JDBC

B - SessionFactory

C - Session

D - Configuration

Q 39 - Is Session a thread-safe object?

A - true

B - false

Q 40 - Which method is used to remove a persistent instance from the datastore?

A - Session.delete()

B - Session.remove()

C - Session.del()

D - Session.rm()

Q 41- Which method is used to save or update the state of the given instance from the underlying database?

A - `Session.saveOrUpdate()`

B - `Session.keep()`

C - `Session.update()`

D - `Session.load()`

Q 42 - Is first level caching mandatory in hibernate?

A - true

B - false

Q 43 - Which of the following database is supported by Hibernate?

A - DB2/NT

B - PostgreSQL

C - Sybase SQL Server

D - All of the above

Q 44 - Configuration object is used to create SessionFactory object in hibernate.

A - true

B - false

Q 45 - name attribute of `@Column` annotation permits the name of the column to be explicitly specified.

A - true

B - false

Q 46- Which of the following is true about Transaction object in hibernate?



A - A Transaction represents a unit of work with the database.

B - Transactions in Hibernate are handled by an underlying transaction manager.

C - This is an optional object and Hibernate applications may choose not to use this interface, instead managing transactions in their own application code.

D - All of the above

Q 47 - Session.beginTransaction method begins a unit of work and returns the associated Transaction object.

A - true

B - false

Q 48 - Which element of hbm.xml automatically generate the primary key values?

A - id

B - generator

C - primaryKey

D - None of the above.

Q 49- What is the difference between get() and load() methods of session object?

A - get() returns null if no data is present where as load throws ObjectNotFoundException exception in such case.

B - get() always hits the database whereas load() method doesn't hit the database.

C - get() returns actual object whereas load() returns proxy object.

D - All of the above.

Q 50 - The SessionFactory is heavyweight object.

A - false

B - true

Q 51 - Which of the following is true about HQL?

A - Hibernate Query Language (HQL) is an object-oriented query language.

B - Instead of operating on tables and columns, HQL works with persistent objects and their properties.

C - Both of the above.

D - None of the above.

Q 52 - Which of the following is true about SessionFactory object in hibernate?

A - The SessionFactory is heavyweight object.

B - SessionFactory object is created during application start up and kept for later use.

C - You would need one SessionFactory object per database using a separate configuration file.

D - All of the above.

Q 53 - Which of the following situation represents many-to-many relationship?

A - An employee can have multiple certificates and same certificate can be conferred to many employees.

B - An employee can have multiple certificates.

C - A certificate can be conferred to many employees.

D - All of the above.

Q 54- What is second level cache in hibernate?

A - The second-level cache is the SessionFactory based cache and is mainly responsible for caching objects across sessions.

B - The second-level cache is the Session based cache.

C - Both of the above.

D - None of the above.

Q 55 - Which of the following is true about @Column annotation?

A - The @Column annotation is used to specify the details of the column to which a field or property will

be mapped.

B - The @Column annotation is applied on a class.

C - Both of the above.

D - None of the above.

Q 56 - Which of the following object is used to create SessionFactory object in hibernate?

A - Configuration

B - Session

C - SessionFactory

D - Transaction

Q 57 - Session.createQuery creates a new instance of Query for the given HQL query string.

A - true

B - false

Q 58 - Which of the following is true about <id> element?

A - The <id> element maps the unique ID attribute in class to the primary key of the database table.

B - The name attribute of the id element refers to the property in the class.

C - The column attribute of the id element refers to the column in the database table.

D - All of the above.

Q 59 - Is second level caching mandatory in hibernate?

A - true

B - false

Q 60- Which of the following is a core component of Hibernate?

A - Transaction

B - SessionFactory

C - Session

D - All of the above

Q 61 - name attribute of @Column annotation permits the name of the column to be explicitly specified.

A - true

B - false

Q 62 - Which of the following is true about <property> element?

A - The <property> element is used to map a Java class property to a column in the database table.

B - The name attribute of the element refers to the property in the class.

C - The column attribute of the element refers to the column in the database table.

D - All of the above.

Q 63 - Which of the following is true about @Entity annotation?

A - @Entity annotation marks a class as an entity bean.

B - Class marked with @Entity annotation must have a no-argument constructor that is visible with at least protected scope.

C - Both of the above.

D - None of the above.

Q 64 - Which of the following is true about Hibernate?

A - Hibernate takes care of mapping Java classes to database tables using XML files and without writing any line of code.

B - Hibernate provides simple APIs for storing and retrieving Java objects directly to and from the database.

C - Hibernate abstracts away the unfamiliar SQL types and provide us to work around familiar Java Objects.

D - All of the above.

Q 65 - Session.beginTransaction method begins a unit of work and returns the associated Transaction object.

A - true

B - false

Q 66 - Which element of hbm.xml is used to map a Java class property to a column in the database table?

A - id

B - generator

C - property

D - class

Q 67 - When a Read-write concurrency strategy is to be used?

A - Use it for reference data only.

B - Use this strategy for read-mostly data where it is critical to prevent stale data in concurrent transactions.

C - Use this strategy if data hardly ever changes and a small likelihood of stale data is not of critical concern.

D - None of the above.

Q 68 - Which of the following is true about <class> element?

A - The <class> elements are used to define specific mappings from a Java classes to the database tables.

B - The Java class name is specified using the name attribute of the class element.

C - The database table name is specified using the table attribute of the class element.

D - All of the above.

Q 69- Which of the following tools/frameworks provides integration with Hibernate?

A - XDoclet Spring

B - J2EE

C - Maven

D - All of the above.

Q 70 - Which of the following element maps java.util.Collection property in hibernate?

A - <set>

B - <list>

C - <bag>

D - <map>

Q 71 - Which of the following is true about INSERT CLAUSE in HQL?

A - HQL supports INSERT INTO clause only where records can be inserted from one object to another object.

B - HQL supports INSERT INTO clause without any restriction.

C - Both of the above.

D - None of the above.

Q 72- Which of the following is the root node of hbm.xml file?

A - hibernate-mapping

B - hibernate-config

C - class-mapping

D - class-config

1.The central artifact in spring javaConfig is the @Configuration-annotated class. **ans: true**

2.What are the modules of spring web flow?

- a. Spring-faces
- b. Spring-bundling
- c. Spring-container
- d.Spring-webflow

3.XML mapping file offers which of the following????????????????

4.In spring MVC each tag provides support to the set of attributes of its corresponding HTML tag counterpart making the tags familiar & intuitive to use. State true or False. **true**

5.Which of the following are mandatory rules to create validation for a normal employee table?

- a. The "empNum" can't be empty
- b."Name" can't be empty
- c. The "empNum" can't be less than 1
- d.All of the option

6.Which of the following allows as to add a new method or attributes to existing classes?

- a. Introduction
- b. Proxy
- c. Weaving
- d.Auto call

7.Given the following Spring configuration file, what is the correct answer:

```
<bean class="com.spring.service.MyServiceImpl">  
<property name="repository" ref="jpaDao"/>  
</bean>
```

<bean class="com.spring.repository.JpaDao"/>

- a. The first declared bean MyServiceImpl is missing an id must be named myService
- b. The second declared bean JpaDao is missing an id must be named jpaDao
- c. Answers 1 and 2 are both rights
- d. Answers 1 and 2 are both wrong

8.Which of the following are the best practices for writing spring XML configuration?

- a. Rarely use classpath.
- b. Mentioning version numbers in schema reference
- c. Using consistent naming conventions
- d. Reuse bean definitions as much as possible

-----  
best practices:

- 1) Add a header comment to each configuration file
- 2) Use consistent naming conventions
- 3) No version numbers in schema references
- 4) Prefer setter injection over constructor injection
- 5) Prefer type over index for constructor argument matching
- 6) Use shortcut forms over expanded forms
- 7) Reuse bean definitions as much as possible
- 8) Always use ids as bean identifiers
- 9) Try to avoid autowiring
- 10) Always use classpath prefix
- 11) Always externalize properties
- 12) Use dependency-check at the development phase
- 13) Do not abuse/overuse dependency injection

9.Spring MVC provides better way to separate which of the following?



a. Presentation

b. Tools

c. Data Access

d. Business Logic

(business logic, UI login, /P logic)

10. We can use index and type attribute together. State true or False. -true

11. Which of the following is Hibernate?

a. Lightweight

b. Open Source

c. ORM

d. All of the listed

12. Which of the following options about Auto Wiring in Spring are correct?

1. Auto-wiring in Spring framework can be performed by configuring XML and auto-wiring with annotation @Autowired.

2. Auto-wiring beans with XML configuration: In Spring framework, you can wire automatically with auto-wiring feature.

3. To enable auto-wiring just define the "autowire" attribute in <bean> tag.

13. Which of the following parsers in XML based on expression and its used extensively in conjunction with XSLT?

a. XPath parser -----Ans

b. SAX parser

c. STAX Parser

d. JDOM Parser

14. Length attribute of @Column annotation permits the size of the column used to map a value particularly for a string value. State true or False. ----true

15. When we work with an object oriented system there's a mismatch between the object model and the relational database. State true or False. -----true

16. Which of the following is true about JDBC?

a. JDBC APIs enables java programs to execute SQL statements and interact with any SQL Complaint database

b. JDBC stands for Java Database Connectivity

c. it provides set of java API for accessing the relational databases from java program

d. All the listed option -----Ans

17.- What is session scope?

A - This scopes a bean definition to an HTTP session.

B - This scopes the bean definition to Spring IoC container.

C - This scopes the bean definition to HTTP request.

D - This scopes the bean definition to HTTP Application/ Global session

18. Which of the listed statement are correct for spring Bean scope: Prototype?

1. Spring container creates new instance of bean for each and every request for that bean

2. Prototype scoped bean is served by creating new instance of bean for each and every bean dependency

3. After instantiating bean and submitting it to client spring container will maintain the record (not maintain)

4. Prototype scope is spring standard scope and can be used in standalone as well as web application of spring.

19. ServletWrappingController-Wraps an existing servlet which is managed completely by the spring environment. State true or False. -----true

20. Hibernate session is the main runtime interface between a java application and Hibernate. State true or False. -----true

23. Which of the following are correct in sql queries in hibernate.

- 1. sql queries may contain named and positional parameters, just like hibernate queries
- 2. You may express a query in sql using createSQLQuery()
- 3. Hibernate take care of the mapping from result sets to objects
- 4. You may call session.connection() and use JDBC Connection at any time

24. Which is the query language that embodies a very powerful and flexible mechanism to query, store, update and retrieve objects from a database?

- a. PLSQL
- b. RDBMS
- c. SQL
- d. HQL

25. What is spring MVC framework?

- a. spring MVC framework is used for Transaction management for web application
- b. spring MVC framework is Model-value-class architecture and used to bind model data
- c. spring MVC framework is used for AOP for web application
- d. spring web MVC framework provides model-view-controller architecture and ready components that can be used to develop flexible and loosely coupled web applications.

26. Which of the listed options are True for bean configuration inheritance?

1. In spring the inheritance is supported in bean to share common values properties or configurations 2. A child bean or inherited bean can inherit its parent bean configurations, properties & some attributes 3. the parent bean allows to override the inherited values.

27. XsltViewResolver supports XsltView by resolving the view name of which of the following options?

- a. View name of the URL of the report file
- b. URL of the XSLT---Ans

- c. VelocityView and its subclasses
- d.All of the option

28.[xml]

```
<id name="deptId" type="string">  
<column name="columnId" length="30"/>  
<generator/>  
</id>
```

[xml]

The above is an example of creating which key?

- a. Primary key -----Ans
- b. Secondary key
- c. Unique key

29.When you need to upload a large number of records into your database using Hibernate, you can use batch processing. State true or False. ---true

30.Different types of run advice "before" and "after" the advised method is invoked. Which of the following is the correct option with respect to advice?

- a. After returning
- b. None
- c. After throwing
- d. around -----ANs

31.Implementation of viewResolver accepts a configuration file written in XML with the same DTD as spring XML bean factories. State true or False. -----true

32.Choose the odd one out respect to annotations from the following

- a.@requestmapping

b. @controller

c. @responsevalid

d. @Pathvalid

33. For a fast Development, the dependency injection feature of spring Framework & support to various Frameworks makes the easy development of javaEE application. state true or False. ----  
true

34. Testing an application written with Spring is complex because environment-dependent code is moved into this framework. state true or False. --false (simple)

35. The application is designed around an object model. Sql code is generated at build time & the associations between obj are supported by the persistence mechanism, and queries are specified using an obj-oriented expression language. This is best suited for medium-sized applications

with some complex transactions. Used when mapping exceeds 25 different database products at a time.

which of the following is this called as?

a. Object mapping

b. Application object mapping

c. Medium object mapping-----Ans

d. Expression object mapping

36. Which of the following is not the steps for creating web MVC?

a. Provide exit controller in the web

b. Create a controller class

c. start server & deploy the project----Ans

d. Define the bean in the xml file

37. Maven is a project management & comprehension tool. state true or False. True

38. Which of the following elements is used to represent one-to-one relationship in hibernate?

- a. <many-to-one>
- b. <ManyToOne>
- c. <many-one>
- d. none

The <many-to-one> element will be used to define the rule to establish a one-to-one relationship between EMPLOYEE and ADDRESS entities, but column attribute will be set to **unique** constraint and rest of the mapping file will remain as it was in case of many-to-one association.

OR

61. Which of the following is a one to one relationship

- a) <many-to-many>
- b) <many-to-one>
- c) None of the list-----ANS
- d) <one-to-many>

39. In hibernate implement cache for a query, if the result sets can integrate closely, which level of the cache can be implemented?

- a. first level cache
- b. second level cache-----Ans
- c. third level cache
- d. Fourth level cache

40. Spring MVC provides predefined templates for JDBC, Hibernate and JPA. state true or False.  
----true

41. In Spring MVC which of the following is the front controller class that initializes the context based on the spring beans configuration?

- a. org.springframework.web.servlet.DispatcherServlet

- b. org.springframework.web.context.DispatcherServlet
- c. org.springframework.web.servlet
- d. org.springframework.web.context.ApplicationContext

42. Which of the following is NOT the type of mapping?

a. Instance mapping-----Ans

- b. Component mapping
- c. Association mapping
- d. Class mapping

43. Which of the following are modules of Web layer?

A - WebSocket, Servlet, Web, Portlet-----ANs

- B - WebSocket, Servlet, Web-MVC, Web
- C - HTML, JSP, WEB, Portlet
- D - HTML, Servlet, WEB, Portlet

44. Which of the following statements are correct?

- a. Bean Factory and ApplicationContext are basic container only
- b. Bean Factory is basic container and ApplicationContext is advanced container---ANs
- c. Bean Factory and ApplicationContext are advanced container
- d. Bean Factory is advanced container and ApplicationContext is basic container

45. In spring bean configuration bean attribute called 'scope' defines what kind of object has to be created and returned. What returns a new bean instance each time when required?

a. Prototype----Ans

- b. Session
- c. Singleton
- d. Global session

46.To validate the form fields you need to have a separate UserValidator class that implements the validator interface, override the validate () method perform all the validations. state true or False. -----true

47.The application context implements which of the following interface that is used to obtain localized

messages, with the actual implementation being pluggable?

1.messageSource -----Ans

2.RequestMapping

3.both

4.neither

48.Which of the following is an available aggregate function in HQL?

a. Aggregate (property name)

b. Count (property name or \*)

c. max (property name)

d. avg (property name)

49.What statement is not correct in live environment? Select a unique answer

1. Constructor and properties autowiring in the same bean are not compatible

2. A bean should have a default or a no-args constructor

3. The <constructor-arg> tag could take type, name and index to reduce ambiguity

4. None of the above

5. All of the above

50.- What is ContextClosedEvent event?

A - This event is published when the Servlet Context is either initialized or refreshed.

B - This event is published when the HTTP Request is received.



C - This event is published when the HTTP Response is returned.

D - This event is published when the ApplicationContext is closed using the close method on the

ConfigurableApplicationContext interface. -----ANs

51.Which of the following explains about addclass() function in the listed options?

a. this function translates a java class name into file name-----ANs

b. this translated file name is then loaded as an input stream from the java class loader--ANs

c. this addclass() function is important if you want efficient usage of classes in your code-----  
-Ans

52.Spring MVC provides a JSP tag library (Spring form) for making it easier to bind form elements to model data. state true or False. Ans:True

53.Which of the following is correct assertion about spring?

a. Spring enables developers to develop enterprise-class applications using POJOs.

b. Spring is organized in a modular fashion.

c. Testing an application written with spring is simple because environment-dependent code is moved into this framework.

d.All of above.

54.Which of the following statement is INCORRECT by extending ViewResolver and ChainingViewResolver?

a. programmers can have custom view resolvers

b. There are lot of view resolvers available in Spring framework

c. Spring MVC view resolvers help the Dispatcher Servlet in identifying the views which has to be rendered in response for a request.

d. none

55.What are the benefits of Spring Framework's transaction management?

a. It Provides a consistent programming model across different transaction APIs such as JTA, JDBC, Hibernate, JPA, and JDO.

B. It Supports declarative transaction management.

c. It Provides a simpler API for programmatic transaction management than a number of complex transaction APIs such as JTA.

d. All the listed

56. Given the following configuration class, what are correct affirmations? Select one or more answers.

```
public class ApplicationConfig {  
    private DataSource dataSource;  
  
    @Autowired  
    public ApplicationConfig(DataSource dataSource) {  
        this.dataSource = dataSource;  
    }  
  
    @Bean(name="clientRepository")  
    ClientRepository jpaClientRepository() {  
        return new JpaClientRepository();  
    }  
}
```

1. @Configuration annotation is missing
2. Default or no-arg constructor is missing
3. @Bean name is ambiguous
4. @Bean scope is prototype

57. What is true about <list> collection configuration elements?

A. This helps in wiring a list of values, allowing duplicates. -----<list>

B. This helps in wiring a list of values but without any duplicates. -----<set>

C. This can be used to inject a collection of name-value pairs where name and value can be of any type. -----<map>

This can be used to inject a collection of name-value pairs where the name and value are

both Strings. -----<props>

Ans: This helps in wiring a list of values, allowing duplicates.

58. Which are the correct implementation classes of ApplicationContext?

A. FileSystemXmlApplicationContext, ClassPathXmlApplicationContext,  
WebXmlApplicationContext-----

B. FileSystemApplicationContext, ClassPathApplicationContext, WebApplicationContext

C. AdvancedApplicationContext, FileApplicationContext

D. FileSystemApplicationContext, ClassPathApplicationContext

59. It is difficult to inject the dependency by constructor. state true or False. ---true

60. The Model-View-Controller(MVC) is an architectural pattern that does not separate an application into three main logical components: the model, the view and the controller.

state true or False. -----false

Q 1 - What ORM stands for?

A - Object Relation Map

B - Object Relational Mapping

C - Object Record Mapping

D - None of the above.

Q 2 - Which of the following is true about configuration component of Hibernate?

A - The Configuration object is the first Hibernate object you create in any Hibernate application.

B - The Configuration object is usually created only once during application initialization.

C - The Configuration object represents a configuration or properties file required by the Hibernate.

D - All of the above.

Q 3 - Session.createQuery creates a new instance of Query for the given HQL query string.

A - true

B - false

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Q 69- Which of the following tools/frameworks provides integration with Hibernate?

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Q 71 - Which of the following is true about INSERT CLAUSE in HQL?

A - HQL supports INSERT INTO clause only where records can be inserted from one object to another object.

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Q 72- Which of the following is the root node of hbm.xml file?

A - hibernate-mapping

B - hibernate-config

C - class-mapping

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A - Object Relation Map

B - Object Relational Mapping

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Q 2 - Which of the following is true about configuration component of Hibernate?

A - The Configuration object is the first Hibernate object you create in any Hibernate application.

B - The Configuration object is usually created only once during application initialization.

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C - The database table name is specified using the table attribute of the class element.

D - All of the above.

Q 69- Which of the following tools/frameworks provides integration with Hibernate?

A - XDoclet Spring

B - J2EE

C - Maven

D - All of the above.



Q 70 - Which of the following element maps java.util.Collection property in hibernate?

A - <set>

B - <list>

C - <bag>

D - <map>

Q 71 - Which of the following is true about INSERT CLAUSE in HQL?

A - HQL supports INSERT INTO clause only where records can be inserted from one object to another object.

B - HQL supports INSERT INTO clause without any restriction.

C - Both of the above.

D - None of the above.

Q 72- Which of the following is the root node of hbm.xml file?

A - hibernate-mapping

B - hibernate-config

C - class-mapping

D - class-config



- 1) In Spring AOP, the process of linking aspect with other application types or objects to create an advice object is called -----**Weaving**
- 2) **<list>** tag is used to wire a list of values, allowing duplicates.
- 3) **BeanFactory, ApplicationContext** classes acts as IoC containers in Spring.
- 4) Can you inject null and empty string values in Spring? -----**yes**
- 5) AOP stands for **Aspect Oriented Programming**.
- 6) SpEL is NOT part of core container-----**false**
- 7)Following class can be extended to create custom event in spring.
- A) SpringEvent
  - B)Event
  - C)ApplicationEvent**
  - D)None of above
- 8)Which is the way to provide configuration metadata to spring?
- A) XML Based configuration file.
  - B)Annotation based configuration.
  - C)Java based configuration.
  - d)all of listed**
- 9)Which of the following are modules of Web layer?
- A )Servlet, Web, Portlet, WebSocket**
  - B)WebSocket, Servlet, Web-MVC, Web
  - C)HTML, JSP, WEB, Portlet
  - D)HTML, Servlet, WEB, Portlet

10) How many instances can be created for a global session ----**one**

11) What display the data with help of model? ----- **View**

12) Which of the following is correct assertion about spring?

I.Spring enables developers to develop enterprise-class applications using POJOs.

II.Spring is organized in a modular fashion.

III.Testing an application written with Spring is simple

**IV. All of the list**

13) How after advice works?

**A) Run advice after a method execution regardless of its outcome**

B)Run advice after a class loads.

C)Run advice after http response is returned.

D)Run advice after http request is processed.

14) What is true about <list> collection configuration elements?

**A.This helps in wiring a list of values, allowing duplicates.-----<list>**

B.This helps in wiring a list of values but without any duplicates.-----<set>

C.This can be used to inject a collection of name-value pairs where name and value can be of any type.-----<map>

D.This can be used to inject a collection of name-value pairs where the name and value are both Strings.-----<props>

15) Element which can be used to inject a collection of name-value pairs where the name and the value can be of any type.

a)<list>

b)<set>

**c)<map>**

d)<props>

16)Element which can be used to inject a collection of name-value pairs where the name and the value are both Strings type.

a)<list>

b)<set>

c)<map>

**d)<props>**

17)What is ContextStartedEvent event?

A) This event is published when the Servlet Context is either initialized or refreshed.

B)This event is published when the HTTP Request is received.

**C)This event is published when the ApplicationContext is started using the start() method on the ConfigurableApplicationContext interface.**

D)This event is published when the HTTP Response is returned.

18) What is ContextClosedEvent event?

A) This event is published when the Servlet Context is either initialized or refreshed.

B)This event is published when the HTTP Request is received.

C)This event is published when the HTTP Response is returned.

**D)This event is published when the ApplicationContext is closed using the close method on the ConfigurableApplicationContext interface.**

19) Which of the following is true about @Entity annotation?

A) @Entity annotation marks a class as an entity bean.

B)Class marked with @Entity annotation must have a no-argument constructor that is visible with at least protected scope.

**C)Both of the above.**

D)None of the above.

20) Which of the following not available in HQL?

- a)Select
- b)Where
- c)Sub**
- d)Having

21)Which of the following is an available aggregate function in HQL?

- a.Aggregate(property name)
- b.Count(property name or \*)**
- c.max(property name)**
- d.avg(property name)**

22)Which of the following database is not supported by Hibernate?

- A) DB2/NT
- B)MySQL
- C)FoundationDB**
- D)PostgreSQL

23)Which of the following is true about Hibernate?

- A) Hibernate is an Object-Relational Mapping(ORM) solution for JAVA**
- B)Hibernate is an Object-Relational Mapping(ORM) solution for .NET
- C)Both of the above.
- D)None of the above.

24)ORM stands for Object-Relational Mapping (ORM) is a programming technique for converting data between relational databases.-----**True**

25)What is the difference between save() and persist() methods of session object?

A) There is no difference.

B)save saves the object and returns status whereas persist stores status in different variable.

**C)save saves the object and returns the id of the instance whereas persist do not return anything after saving the instance.**

D)None of the above.

26) What is required to write a basic spring program?

**jdk,ide,maven,all the above**

27)JDBC, ORM, OXM, JMS, Transactions are the modules of Data Access/ Integration layer.-----**True**

28)Spring framework is a light weight framework.-----**TRUE**

29) Singleton is the default scope of any spring bean. -----**TRUE**

30)Analyze the below code snippet:

```
<bean class="com.spring.service.MyServiceImpl">
```

```
<property name="repository" ref="jpaDao"/>
```

```
</bean>
```

```
<bean class="com.spring.repository.JpaDao"/>
```

Which of the following statements is valid?

I. The "id" attribute must be declared for the bean "MyServiceImpl" because it is mandatory attribute.

II. In the second bean of type "com.spring.repository.JpaDao" the "id" attribute must be specified with name "jpaDao".

Select One

a. Both I and II are correct

**b. II only**

c. I only

d. Both I and II are incorrect

31) Which of the following parses in XML based on expression and its used extensively in conjugation with xstl?

- a) JDOM parser
- b) SAX parser
- c) STAX parser
- d) Xpath parser**

32) What is true about BeanFactory, ApplicationContext?

**BeanFactory is basic and ApplicationContext is advanced**

33) Which are the correct implementation classes of ApplicationContext?

**A. FileSystemXmlApplicationContext, ClassPathXmlApplicationContext, WebXmlApplicationContext**

B. FileSystemApplicationContext, ClassPathApplicationContext, WebApplicationContext

C. AdvancedApplicationContext, FileApplicationContext

D. FileSystemApplicationContext, ClassPathApplicationContext

34) org.springframework.web.servlet.DispatcherServlet is the configuration in xml file for dispatcherServlet.

35) The central artifact in spring javaConfig is the @Configuration annotated class?-----**True**

36) Maven is a project management and comprehension tool-----**True**

37) What is session scope?

**A) This scopes a bean definition to an HTTP session.**

B) This scopes the bean definition to Spring IoC container.

C) This scopes the bean definition to HTTP request.

D) This scopes the bean definition to HTTP Application/ Global session



38) What of the following is not correct in live environment?

- a. Constructor and properties autowiring in the same bean are not compatible
- b. A bean should have a default or a no-args constructor
- c. The <constructor-arg> tag could take type, name and index to reduce ambiguity

**d. All of the above**

39) which is not core component of hibernate?

a.transaction

b.criteria

**c.provider**

d.query

40) ServletWrappingController-Wraps an existing servlet which is managed completely by the spring environment.-----**True**

42)Validations for normal employee class

I.Name cant be empty

II.Id cant be empty

III.Id cant be less than 1

**iv.all the above**

44)Different types of run advice "before" and "after" the advised method is invoked. Which of the following is the correct option with respect to advice?

a.After returning

b.None

c.After throwing

**d.around**

45)HQL- easily stores, update and retrieve from the database----- **True**

46) Which of the following is Hibernate?

a.Lightweight

b.Open Source

c.ORM

**d.All of the listed**

48) When we work with an object oriented system, there is mismatch between the object model and the relational database State True or False

**a) TRUE**

b) FALSE

49) Spring mvc is a model-view-controller.-----**True**

50) Form fields are validated using user defined validations class by implementing validation interface State True or False.-----**True**

51) Spring does not separate three modules like presentation layer, business layer and data access layer State True or False.-----**False**

52) Pick odd one out in the following annotations ( invalid annotations)

I.@PathVariable **II.@responsevalid**

III.@Controller IV.@requestMapping

53) Length returns number of rows in a column for only string type.-----**True**

54) Which level cache implements a cache for query result sets

**a.Third level cache**

b.Second level cache

c.First level cache

d. Fourth level cache

57) What is the function of clean maven lifecycle command ?

**cleans artifacts in the earlier build**

60) Which of the following is a one to one relationship

a) <many-to-many>

**b) <many-to-one>**

c) None of the list

d) <one-to-many>

61) Which of the following is a many to one relationship

a) many-to-one

**b) <many-to-one>**

c) None of the list

d) <Manyone>

62) The same XSD of BeanFactory can be used for View resolver interface?

State True or False

**a) TRUE**

b) FALSE

63) Testing an application written with Spring is complex because environment-dependent code is moved into this framework.-----**false**

64)What is ContextStoppedEvent event?

A) This event is published when the Servlet Context is either initialized or refreshed.

**B)This event is published when the ApplicationContext is stopped using the stop() method on the ConfigurableApplicationContext interface.**

C)This event is published when the HTTP Request is received.

D)This event is published when the HTTP Response is returned.

65)XsltViewResolver-supports XsltView by resolving the view name of which of the following options

a) all of the listed options

b)VelocityView and its subclasses

**c)URL of xslt**

d)view name of the URL of the report file.

66) Spring MVC provides predefined templates for JDBC, Hibernate and JPA.-----**True**

67) ApplicationContext implements which of the following interface that is used to obtain localized messages, with the actual implementation being pluggable

I. MessageSource

II. RequestMapping

**a. only I**

b.only II

c. Neither I or II

d. Both I and II

68) Which of the following are the best practices for writing spring XML Configurations?

**a.Using consistent naming conventions**

b. Rarely use classpath

c.Mentioning version numbers in schema references

**d.reuse bean definitions as much as possible**

69) To validate the form fields you need to have a separate UserValidator class that implements the validator interface, Override the validate() method perform all the validations.-----**True**

70) Which of the listed options are TRUE for Bean configuration inheritance?

- I. In spring, Inheritance is supported in bean configuration to share common values, properties or configurations
- II. A child bean or inherited bean can inherit its parent bean configurations, properties and some attributes
- III. The parent bean allow to override the inherited values

**a.I, II, and III**

b.I and II

c.II and III

d.I and III

71) which of the following options about Auto wiring in spring are correct?

- I. The Auto wiring in spring framework can be performed by configuring in xml and spring Auto-Wiring with Annotation @Autowired
- II. Auto-wiring beans with xml configuration: In Spring framework, you can wire beans automatically with auto wiring feature
- III. To enable auto-wiring just define the "autowire" attribute in <bean> tag.

**a.I, II, and III**

b.I and III

c.I and II

d.II and III

72) XML Mapping file offers which of the following?

- a.Readable Metadata
- b.Surrogate key generation strategy
- c.Coleccion metadata
- d.all the listed options**
- e.Column/Table Mapping

73) Which of the following explains about addClass function in the listed options(doubt)

- I. This function translates a Java class name into file name
- II. This translated file name is then loaded as an input stream from the java class loader
- III. This addClass function is important if you want efficient usage of classes in your code

**a. I, II, and III**

b. I and III

c. I and II

d. II and III

74) The application is designed around an object model. The SQL code is generated at build time and the associations between objects are supported by the persistent mechanism, and queries are specified using an object oriented expression language. This best suited for medium-sized applications with some complex transactions. Used when the mapping exceeds 25 different database products at a time.

Which of the following is this called as?

a. Application Object Mapping

b. Expression object mapping

**c. Medium Object Mapping**

d. Object Mapping

75) Which of the following is not the best practice?

**a. Provide exit controller in the web**

b. Create a controller class

c. start server & deploy the project

d. Define the bean in the xml file

76) What are the modules of spring web flow?

**a. Spring-faces**

b. Spring-bundling

**c. Spring-container**

#### **d.Spring-webflow**

77) Bean post processor is a concrete class-----**false**

78) The Spring MVC pattern does not separate the different aspects of the application into input logic, business logic, and UI logic.-----**false**

79) Constructors in a class can be?

- a. may be defined as private
- b. Contains same name as class
- c. used to create objects
- d. all the above**

80) Given the Spring configuration file, which are the correct statements?

```
<bean class="com.spring.service.BankServiceImpl"
```

```
p:bankName="NationalBank">
```

```
</bean>
```

- a) The p namespace has to be declared**
- b) Bean id is bankServiceImpl
- c) The BankServiceImpl references a NationalBank bean
- d) NationalBank is a scalar value**

81) Which is correct?

- a. Hibernate is an object oriented query language
- b. It is database independent
- c. it supports pagination
- d. HQL statements will be converted to SQL or other language the database supports
- e. all the above**

82) Using the Spring AOP framework, what are the joinpoint methods of the following pointcut expressions?

```
execution(public * *(..))
```

- a) **The execution of all public method**
- b) The execution of all public method returning a value
- c) The execution of all public method having at least one parameter
- d) The execution of all public method in class belonging to the default java package

83) What is the transaction behavior of the PROPAGATION\_REQUIRES\_NEW model? Select a unique answer.

- a) If a transaction exists, the current method should run within this transaction. Otherwise, it should start a new transaction and run within its own transaction.
- b) If a transaction is in progress, the current method should run within the nested transaction of the existing transaction. Otherwise, a new transaction has to be started and run within its own transaction.
- c) **The current method must start a new transaction and run within its own transaction. If there is an existing transaction in progress, it is suspended.**
- d) None of the above

84) Types of autoproxying?

- a. **BeanNameAutoProxyCreator**
- b. **DefaultAdvisorAutoProxyCreator**
- c. Metadata autoproxying
- d. WebApplication context

85) Which scope is a single bean definition to have any number of object instances ? -----**prototype**

86) Which annotation is used in setter? which type of annotation applies to bean property setter methods select one

- a)@Requires
- b)@Resource
- c)@**Required**
- d)@Requiring

87) Model is used to encapsulate the response data-----**True**



88) What is a view resolver?

- a) class
- b) interface**
- c) object
- d) argument

89) Cache enables the database to hit as much as possible for better performance in critical applications.-----**True**

90) View Resolver provides a mapping between view names and actual views.-----**True**

91) Which one interpret user input and transform it into a model that is represented to the user by the view.

- a) controller**
- b) dispatcher servlet
- c) model
- d) browser

92) Assuming @Transactional annotation support is enabled and the transferMoney method is called through a Spring AOP proxy, what is the behavior of the following code sample?

```
@Transactional(propagation=Propagation.REQUIRED)
public void transferMoney(Account src, Account target, double amount) {
    add(src, -amount);
    add(src, amount);
}

@Transactional(propagation=Propagation.REQUIRES_NEW)
public void add(Account account, Double amount) {
    // IMPLEMENTATION
}
```

- a) The add() method executes code in a new transaction
- b) The add() method uses the transaction of the transferMoney() method**
- c) When calling the add() method, an exception is thrown

d) Other behavior

93) Application contexts can publish events to beans that are registered as listeners.-----**true**

94) Which is not used as java annotation

- a) @component
- b) @bean
- c) @configuration
- d) none**

95) Hibernate supports query cache-----**true**

96) What are the mapping associations used in hibernate?

- a. One-to-One Association**
- b. Many-to-One Association
- c. One-to-Many Association
- d. Many-to-Many Association**

97) What are the different fetching strategies in hibernate?

- a) Join Fetching**
- b) Batch Fetching**
- c) Select Fetching**
- d) Sub-select Fetching**

98) Hibernate helps in mapping of java objects with database tables -----**true**

99) Which of the following are mandatory rules to create validation for a normal employee table?

- a.The "empNum" cant be empty
- b."Name" cant be empty
- c.The "empNum" cant be less than 1
- d.All of the option**

100) Which of the following allows as to add a new method or attributes to existing classes?

## **a.Introduction**

- b.Proxy
- c.Weaving
- d.Auto call

111. Length attribute of @column annotation permits the size of the column used to map a value particularly for a string value.-----**true**

112. Which of the following is true regarding prototype

- a. **scope is a single bean definition to have any number of object instances**
- b. it is the default scope in standard web applications
- c. **the instances will be created for each bean dependency**

113.which mapping is given in hibernate in common?

- a) **object**
- b) **relational**
- c) class
- d) column

114.In which level, sql query is integrated in HQL?

- a) class level
- b) low level
- c) high level
- d) **object level**

115.In which way, the properties of one bean is used by number of beans?

- a) **inheritance**
- b) dependency injection
- c) through child bean

116.In spring MVC each tag provides support to the set of attributes of its corresponding HTML tag counterpart making the tags familiar & intuitive to use-----**True**

117.We can use index and type attribute together-----**true**

118.Which of the following is true about JDBC?

- a.JDBC APIs enables java programs to execute SQL statements and interact with any SQL Complaint database
- b.JDBC stands for Java Database Connectivity

c.it provides set of java API for accessing the relational databases from java program

**d.All the listed option**

119.Which of the listed statement are correct for spring Bean

- a) **Spring container creates new instance of bean for each and every request for that bean**
- b) **Prototype scoped bean is served by creating new instance of bean for each and every bean dependency**
- c) After instantiating bean and submitting it to client spring container will maintain the record
- d) **Prototype scope is spring standard scope and can be used in standalone as well as web application of spring.**

120.Which is the query language that embodies a very powerful and flexible mechanism to query, store, update and retrieve

objects from a database?

- a.PLSQL
- b.RDBMS
- c.SQL
- d.HQL**

121.What is spring MVC framework?

- a.spring MVC framework is used for Transaction management for web application
- b.spring MVC framework is Model-value-class architecture and used to bind model data
- c.spring MVC framework is used for AOP for web application
- d.spring web MVC framework provides model-view-controller architecture and ready components that can be used to develop flexible and loosely coupled web applications**

122.When you need to upload a large number of records into your database using Hibernate, you can use batch processing.-----**true**

123.Implementation of viewResolver accets a configuration file written in XML with the same DTD as spring XML bean factories.-----**true**

124.For a fast Development, the dependency injection feature of spring Framework &support to various Frameworks makes the easy development of javaEE application.-----**true**

125.In hibernate implement cache for a query ,if the result sets can integrate closely,which level of the cache can be implemented?

- a.first level cache
- b.second level cache**
- c.third level cache
- d.Fourth level cache

126.In Spring MVC which of the following is the front controller class that initializes the context based on the spring beans configuration?

- a.org.springframework.web.servlet.DispatcherServlet**
- b.org.springframework.web.context.DispatcherServlet
- c.org.springframework.web.servlet
- d.org.springframework.web.context.ApplicationContext

127.Which of the following statements are correct?

- a.Bean Factory and ApplicationContext are basic container only
- b.Bean Factory is basic container and ApplicationContext is advanced container**
- c.Bean Factory and ApplicationContext are advanced container
- d.Bean Factory is advanced container and ApplicationContext is basic container

128.In spring bean configuration bean attribute called 'scope' defines what kind of object has to be created and returned. What returns a new bean instance each time when required?

- a.Prototype**
- b.Session
- c.Singleton
- d.Global session

129. Which of the following is true about Hibernate?

- A) Hibernate takes care of mapping Java classes to database tables using XML files and without writing any line of code.
- B) Hibernate provides simple APIs for storing and retrieving Java objects directly to and from the database.
- C) Hibernate abstracts away the unfamiliar SQL types and provide us to work around familiar Java Objects.
- D) All of the above.**

130. Spring MVC provides a JSP tag library(Spring form) for making it easier to bind form elements to model data.-----**True**

131. Which of the following statement is INCORRECT by extending ViewResolver and ChainingViewResolver?

- a. programmers can have custom view resolvers
- b. There are lot of view resolvers available in Spring framework
- c. Spring MVC view resolvers help the Dispatcher Servlet in identifying the views which has to be rendered in response for a request.
- d. none**

132. Spring MVC provides better way to separate which of the following?

- a. Presentation
- b. Tools
- c. Data Access
- d. Business Logic(not sure)**

133. It is difficult to inject the dependency by constructor. -----**true**

134. The Model-View-Controller(MVC) is an architectural pattern that does not separate an application into three main logical components: the model, the view and the controller.-----**false**

135. How many layers are there in Hibernate architecture

a)3

**b)4**

c)5

d)2

136. Which tool helps to generate the mapping document Though many Hibernate users choose to write the XML by hand

select one

a)oldgen

b)younggen

**c)Middlegen**

d) Mediumgen

137. Java based configuration option disables you to write most of your Spring configuration without XML but with the help of few Java-based annotations -----**False**

138. What types of views supported by spring MVC for different presentation technologies

select one or more

a)JSP

b)HTML

c)velocity templates

**d) all**

139. Spring is a heavy weight framework-----**False**

140. A very powerful and high performance querying language used to Query, retrieve, store data in DB is  
select one

- a)PLSQL
- b)HQL**
- c)SQL
- d)RDBMS

141. Which best describes the propagation attribute REQUIRED?

- a. Create a new transaction, suspend the current transaction if one exists.
- b. Execute non-transactionally, suspend the current transaction if one exists.
- c. Supports a current transaction, throw an exception if none exists
- d. Support a current transaction, create a new one if none exists.**

142. Which best describes the propagation attribute NON\_SUPPORTED?

- a. Create a new transaction, suspend the current transaction if one exists.
- b. Execute non-transactionally, suspend the current transaction if one exists.**
- c. Supports a current transaction, throw an exception if none exists.
- d. Support a current transaction, create a new one if none exists.

143. Which best describes the propagation attribute MANDATORY?

- a. Create a new transaction, suspend the current transaction if one exists.
- b. Execute non-transactionally, suspend the current transaction if one exists.
- c. Supports a current transaction, throw an exception if none exists.**
- d. Support a current transaction, create a new one if none exists.

144. Which best describes the propagation attribute REQUIRES\_NEW?

- a. Create a new transaction, suspend the current transaction if one exists.**
- b. Execute non-transactionally, suspend the current transaction if one exists.
- c. Supports a current transaction, throw an exception if none exists.
- d. Support a current transaction, create a new one if none exists.

145. Can you instantiate a static inner class in Spring?

- a. No, static classes are not supported
- b. Yes, they are instantiated by default with the class.**

146. An application server is required for spring's transaction mechanism to run.



- a. TRUE
- b. FALSE**

147. What are the types of injection supported by Spring?

- a. Constructor Injection only.
- b. Constructor Injection and Setter Injection**
- c. Constructor Injection, Setter Injection and Interface Injection
- d. Constructor Injection, Setter Injection before 2.0 and Interface Injection with 2.0 and above version

148. @Inject annotation supports "required" attribute.

- a) TRUE
- b) FALSE**

149. Which event is published when context is initialized?

- a) ContextStartedEvent.
- b) ContextRefreshedEvent**
- c) ContextInitializedEvent
- d) ContextReadyEvent

150. Which event is published when context is refreshed?

- a. ContextStartedEvent
- b. ContextInitializedEvent
- c. ContextReadyEvent
- d. ContextRefreshedEvent**

151. Spring Web MVC (and in Spring in general) is the "Open for extension, closed for modification" principle.

The reason that this principle is being mentioned here is because a number of methods in the core classes in Spring Web MVC are marked final.

- a. **true**
- b. false

152. Which of the among is not a special bean in WebApplicationContext?

- a. Locale resolver
- b. Theme resolver
- c. multipart file
- d. resolver
- e. Handler exception resolver
- f. Handler mappings
- g. **None of the above**

153. How the Spring DispatcherServlet supports for returning the last-modification-date, as specified by the Servlet API ?

- a. **By implementing the LastModified interface**
- b. By implementing the LastSessionModified interface
- c. By implementing the LastDateModified interface
- d. By implementing the LastModifiedDate interface

154. WebApplicationContext has more scopes like request, session, globalSession to the standard Application context (which only provides Singleton and Prototype scopes)-----**true**

155. All of Spring's various Controller inherit from AbstractController?-----**true**

156. You can write your own controller by using handleRequestInternal(HttpServletRequest, HttpServletResponse) method from abstract controller and a ModelAndView object.-----**true**

157. Which of the following controller inspects the URL and retrieves the filename of the file request and uses that as a viewname ?For example, the filename of http://www.springframework.org/welcome.html request is welcome.

- a. **UrlFilenameViewController**
- b. MultiActionMultiActionController
- c. CommandController
- d. AbstractController

158. The available prefixes for ClassPathXmlApplicationContext look up are:-

**classpath:**

**file:**

**http:**

**https:**

159. Spring event mechanism is based on the standard:-

- a. **Observer Design Pattern**
- b. Factory Design Pattern
- c. Mediator Design Pattern

160. What kind of servers can support Spring Transaction?

- a. Only Application servers
- b. Only Application servers which support J2EE specification
- c. **Spring's transactional services are supported on web servers also**

161. In Spring Framework's declarative transaction implementation, is it sufficient to annotate to classes with the @Transactional annotation? -----**NO**

162. What is dependency injection?

- a)A design pattern where dependent objects are defined in an xml for easy maintainability.
- b)This is a design pattern whereby dependent objects are passed into an object from the outside at the time application is initialized.**
- c)A unique feature of spring which allows object to be injected at the time of compilation.

163. Given following controller :-

```
@RequestMapping("/basket")  
@Controller  
public class Shopping {  
    @RequestMapping("/{id}")
```

```

public String doCheckOut(@PathVariable Date time) {
    return "home";
}
}

```

Is declaration of Shopping#doCheckOut method correct?-----**TRUE**

164. If you were using Join Points, Pointcuts & Advice what would you be using?

- a)Bean Contatiner
- b)JPA
- c)EJB
- d)**AOP**

165. Spring 3.0 does not support for multipart form.-----**False**

166. Which of the following view technologies are supported by Spring?

- a. JSTL/JSP
- b. Ms Excel
- c. Adobe PDF
- d. **All of the above.**

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

168. For a given web.xml configuration:

```

<web-app version="2.5">
<servlet>
<servlet-name>dispatcher</servlet-name>
<servlet-class>org.springframework.web.servlet.DispatcherServlet</servlet-class>
<load-on-startup>1</load-on-startup>
</servlet>
<servlet-mapping>
<servlet-name>dispatcher</servlet-name>

```

<url-pattern>/\*</url-pattern>

</servlet-mapping>

</web-app>

Which path should have file that contains XML configuration metadata for ApplicationContext of given DispatcherServlet?

/WEB-INF/application-context.xml

/dispatcher-servlet.xml

**/WEB-INF/dispatcher-servlet.xml**

169. Suppose I have an aspect:

@Before("execution(\* method\*())")

and the following class:

```
public class MyClass() {  
    public void method1() {  
        method2();  
    }  
    public void method2() {  
    }  
}
```

If I call, myClass.method1(), from another class, which methods does the advice run against?

- a. **method1**
- b. method2
- c. neither
- d. both

170. The following methods :-

queryForInt(args)

queryForList(args)

getJdbcOperations()

getNamedParameterJdbcOperations()

are all present in which of the following class?

- a. **SimpleJdbcTemplate**
- b. JdbcTemplate
- c. NamedParameterJdbcTemplate
- d. None of the above

171. The dynamic languages currently supported by Spring are

- a. Groovy
- b. JRuby
- c. BeanShell
- d. **All the above**

172. JMS stands for-

- a. **Java Message Service**
- b. Java Mechanism Service
- c. Java Message System
- d. Java MultiThreaded System

173. Which of the following tag is used to enable Aspect using XML configuration?

- a) **<aop:aspectj-autoproxy/>**
- b) <aop:aspectj-component/>
- c) <aop:aspectj/>
- d) <aop:aspectj-autoproxy-component-scan/>

174. Programatic transaction management is done using:-

- a) **TransactionTemplate**
- b) **PlatformTransactionManager**
- c) @TransactionManager
- d) IntegratedTranaction

175. Which of the following are valid return types, or values, from a controller implementation?

- a) null

- b) A String view name
- c) void
- d) All of the above**

176. Which of the following are JSR - 250 annotation/s?

- a) @PreConstruct**
- b) @PreDestroy**
- c) @Resource**
- d) @PostConstruct
- e) @Autowired
- f) @Controller

177. In Spring's form tag library which of the following tags are valid?

- a) input and inputs
- b) checkbox and checkboxes**
- c) radiobutton and radiobuttons**
- d) redirect

### **Solution**

checkbox and checkboxes are valid spring tags.

radiobutton and radiobuttons are valid spring tags.

input is valid spring tag but inputs is not a valid spring tag.

178. If you want to provide the MessageSource functionality to application, providing access to messages in i18n-style in your application. Which one should be used?

- a) ApplicationContext
- b) Property File**
- c) Servlet Context

179. Can dependency injection be lazy initialized?

- a) YES
- b) NO

Solution

Using lazy-init="true" in spring configuration file on the bean, it can be instantiated only when needed.

180. What is second level cache in hibernate?

**A) The second-level cache is the SessionFactory based cache and is mainly responsible for caching objects across sessions.**

B)The second-level cache is the Session based cache.

C)Both of the above.

D)None of the above.

181.What is the type of file used for spring configuration?

**Ans:**

- XML based configuration file.
- Annotation-based configuration
- Java-based configuration

182. What is the security annotation used in spring? (@autowire, @transcible ,.....)

**Ans :**@PreAuthorize and @PostAuthorize

183. What are the types of editors used in spring framework?

**Ans:**

- PropertyEditor
- URLEditor
- ClassEditor
- CustomDateEditor
- FileEditor
- LocaleEditor
- StringArrayPropertyEditor
- StringTrimmerEditor

184. What is the use of ‘after return advice’?

**Ans :** Advice that is executed after the normal completion of a joinpoint is called the “after returning advice”.

185. What are the things mapped in an XML? (Data type, value ,....)



186. Describe Global and Local transactions in Spring.

Ans: Global transactions help to work with multiple transactional resources like relational database and message queue.

Global transactions are managed through JTA and JNDI. Local transactions are resource-specific like JDBC connection.

Local Transactions can work with multiple transactional resources.

188. What is the role of TransactionDefinition interface?

**a. Isolation**

b. Propagation

c. Timeout

d. Read-only status

189. How can we roll back a declarative transaction?

We can use rollback-for and no-rollback-for attributes with transactional definition.

190. How many types of isolation are there?

**a. ISOLATION\_DEFAULT: default isolation.**

b. ISOLATION\_READ\_COMMITTED: dirty reads are prevented, non-repeatable and phantom reads are allowed.

c. ISOLATION\_READ\_UNCOMMITTED : dirty reads are allowed, no-repeatable and phantom reads are allowed.

d. ISOLATION\_REPEATABLE\_READ: dirty reads and non-repeatable reads are prevented but phantom reads are allowed.

e. ISOLATION\_SERIALIZABLE : dirty , non- repeatable reads and phantom reads are prevented.

191. How many types of Propagation are there?

**a. PROPAGATION\_MANDATORY : supports current transaction and throws exception if no transaction available.**

b. PROPAGATION\_NESTED : runs with nested transaction

c. PROPAGATION\_NEVER : does not run with current transaction and throws exception if current transaction exists.

- d. PROPAGATION\_NOT\_SUPPORTED : runs non -transactionally and does not support current transaction.
- e. PROPAGATION\_REQUIRED : runs with current transaction and create one if does not exist.
- f. PROPAGATION\_REQUIRES\_NEW : creates new transaction and suspends if exists any.
- g. PROPAGATION\_SUPPORTS: runs current transaction and runs non -transactionally

192.Name attribute of @Column annotation permits the name of the column to be explicitly specified.

a) **true**

b) false

193. which of the following Allows you to add new methods or attributes to existing classes?

a.Advice

b.Join point

c.Aspect

d.Pointcut

e.Target object

f.Weaving

**g.Introduction**

194. Which of the statement is not correct?

A) Core and beans modules provide the fundamental parts of the framework, including Dependency Injection feature.

B)The SpEL module provides a powerful Expression Language for querying and manipulating an object graph at runtime.

C)Aspects module provides integration with AspectJ.

**D)None of the above.**

195. - SpEL is part of core container.

A) False

**B)True**

196 - Which are the modules of Web layer?

- A) **WebSocket, Servlet, Web, Portlet**
- B)WebSocket, Servlet, Web-MVC, Web
- C)HTML, JSP, WEB, Portlet
- D)HTML, Servlet, WEB, Portlet.

197. SpEX is NOT one of its module Core container.

- A) **True**
- B – False

198. Which of the statement is correct?

- A) The JDBC module provides a JDBC-abstraction layer that removes the need to do tedious JDBC related coding.
- B)The ORM module provides integration layers for popular object-relational mapping APIs, including JPA, JDO, Hibernate, and iBatis.
- C)The Java Messaging Service JMS module contains features for producing and consuming messages.
- D)**All of the above.**

199. Can we inject value and ref both together in a bean?

- a) **True**
- b) False

200. Beans, Core, Context, SpEL are the modules of core container.

- a) **true**
- b) false

201. How can you inject Java Collection in Spring??

- A) **Using list, set, map or props tag.**
- B)Using lit, set, map or collection tag.
- C)Using list, set, props or collection tag.
- D)Using list, collection, map or props tag.

202. Which of the following stands true for spring beans?

A) Spring beans are managed by the Spring IoC container.

B)Spring beans are instantiated, assembled, and otherwise managed by a Spring IoC container.

C)Spring beans are simple POJOs.

**D)All of the above.**

203. Run advice before and after the advised method is invoked.

**ans. around advice**

204. Length attribute of @Column annotation permits the size of the column used to map a value particularly for a String value.

A) false

**B )true**

205. Needs to be implemented by objects that can resolve views by name.

**ANS : ViewResolver**

206. The @Transactional annotation allows u to define transactions programmatically.

**Ans: FALSE**

207. What are the ways to access Hibernate by using Spring?

A) Inversion of Control with a Hibernate Template and Callback.

B)Extending HibernateDAOSupport and Applying an AOP Interceptor node.

**C)Both of above.**

D)None of above.

208. What are the benefits of Spring Framework's transaction management?

a.It Provides a consistent programming model across different transaction APIs such as JTA, JDBC, Hibernate, JPA, and JDO.

b.It Supports declarative transaction management.

c.It Provides a simpler API for programmatic transaction management than a number of complex transaction APIs such as JTA.

**d.All the listed**

209. Given the following Spring configuration file, what is the correct answer:

```
<bean class="com.spring.service.MyServiceImpl">
```

```
<property name="repository" ref="jpaDao"/>
```

```
</bean>
```

```
<bean class="com.spring.repository.JpaDao"/>
```

- i. The first declared bean MyServiceImpl is missing an id must be named myService
- ii. The second declared bean JpaDao is missing an id must be named jpaDao**
- iii. Answers 1 and 2 are both rights
- iv. Answers 1 and 2 are both wrong

220. which of the following are the concerns which are needed in almost every module of an application

**a)logging**

**b)security**

**c)data transfer**

221. Hibernate is the open object relational mapping tool for java.

**a>true**

b>false

222. which of the following can be values of beans?

- a. Bean
- b. All**
- c. Collection(set,list,props,map)
- d. Direct values
- e. Compound property

223. Which of the following is not a type of mapping

- a.Instance mapping**
- b.Component mapping
- c.Association mapping
- d.Class mapping

224. Which of the following is true about <property> element?

- A) The <property> element is used to map a Java class property to a column in the database table.
- B)The name attribute of the element refers to the property in the class.
- C)The column attribute of the element refers to the column in the database table.
- D)All of the above.**

225. In Spring MVC which of the following is the front controller class that initializes the context based on the spring beans configuration?

- a)org.springframework.web.servlet.DispatcherServlet**
- b)org.springframework.web.context.DispatcherServlet
- c)org.springframework.web.servlet
- d)org.springframework.web.context.ApplicationContext

226. The central artefact in spring javaConfig is the @Configuratuion annotated class?State True or False

- a) TRUE**
- b) FALSE

227. Which of the following situation represents many-to-many relationship?

- A) An employee can have multiple certificates and same certificate can be conferred to many employees.**
- B)An employee can have multiple certificates.
- C)A certificate can be conferred to many employees.
- D)All of the above.

228. Session----This scopes a bean definition to an HTTP session only.

229. Which of the following element maps java.util.Map property in hibernate?

A) <Set>

B)<List>

C)<Bag>

**D)<Map>**

230. Is second level caching mandatory in hibernate?

A) true

**B>false**

231. In spring MVC each tag provides support to the set of attributes of its corresponding HTML tag counterpart making the tags familiar & intuitive to use. State true or False.

**a) True**

b) false

232. Which of the following element maps java.util.Collection property in hibernate?

A) <set>

B)<list>

**C)<bag>**

D)<map>

233. Which of the following is true about HQL?

A) Hibernate Query Language (HQL) is an object-oriented query language.

B)Instead of operating on tables and columns, HQL works with persistent objects and their properties.

**C)Both of the above.**

D)None of the above.

234. Length returns number of rows in a column for only string type

a). **TRUE**

b). FALSE

235. The view interface inhibits the preparation of request and hands the request over to one of the view technologies in spring. State true or false

a)**true**

b>false

236. The data required for the request is in which part of spring MVC component?

a)model

b)view

c)controller

d)all

237. <id name="deptId" type="string">

<column name="columnid" length="30"/>

</generator/></id> [/xml]

<id name="deptId" type="string">

<column name="columnid" length="30"/>

</generator/></id> [/xml]

The above is an example of creating which key?

a.DB key

b.Unique key

c.Secondary key

**d.Primary key**



238. Which of the following is true about <class> element?

- A) The <class> elements are used to define specific mappings from a Java classes to the database tables.
- B)The Java class name is specified using the name attribute of the class element.
- C)The database table name is specified using the table attribute of the class element.
- D)All of the above.**

239.Which of the following is a many to one relationship

- a) many-to-one
- b) <many-to-one>**
- c) None of the list
- d) <Anyone>

240. To use Hibernate for multiple databases, Configure multiple sessionFactory instances. State True or False.

- a) True**
- b) False

241. Which of the following are CORRECT in SQL queries in Hibernate.

- I. SQL queries may contain named and positioned parameters, just like Hibernate queries
- II. You may express a query in SQL, using createSQLQuery()
- III. Hibernate take care of the mapping from result sets to objects
- IV. You may call session.connection() and use the JDBC Connection at any time.

select one

- a. I, II, and III
- b. I, II, and IV
- c. I, III, and IV
- d. I, II, III, and IV**

242.Which scope is a single bean definition to have any number of object instances

## Prototype

243. @RequestMapping annotation is used to map a URL either an entire class or to particular handler method

- a) **True** b) False

244. Beans,Core, Context,spEL are the components in Core container

- b) **True** b) False

245. which of the following method returns the root element of the document in DOM parsing?

- a) Node.getFirstChild
- b) Node.getLastChild
- c) **Document.getDocumentElement**
- d) Node.getRoot

246. Which of the following is true about INSERT CLAUSE in HQL?

**A) HQL supports INSERT INTO clause only where records can be inserted from one object to another object.**

B)HQL supports INSERT INTO clause without any restriction.

C)Both of the above.

D)None of the above.

247. Element which can be used to inject a collection of name-value pairs where the name and the value are both Strings type.

- a)<list>
- b)<set>
- c)<map>
- d)<props>

248. Which type of annotation applies to bean property setter methods?

- a)@Requires
- b)@Resource

c)@Required

d)@Requiring

249. Which of the following tools/frameworks provides integration with Hibernate?

A) XDoclet Spring

B)J2EE

C)Maven

**D)All of the above.**

250. Which of the following is true about <id> element?

A) The <id> element maps the unique ID attribute in class to the primary key of the database table.

B)The name attribute of the id element refers to the property in the class.

C)The column attribute of the id element refers to the column in the database table.

**D)All of the above.**

251. what are the extension interface are there in hibernate?

a)ConnectionProvider interface

b)ProxyFactory interface

c)Transaction interface

d)Cache interface

**e)all**

252. which of the following is Hibernate?

a.Lightweight

b.Open Source

c.ORM

**d.All of the listed**

253. In how many ways, objects can be fetched from database in hibernate?

Hibernate provides following four ways to fetch objects from database:

**a. Using HQL**

- b. Using identifier**
- c. Using Criteria API**
- d. Using Standard SQL**

254. You would need one session factory object per database using a separate config file.

- a) TRUE**
- b) FALSE

255. IOC container is responsible to:

- create the instance
- configure the instance, and
- assemble the dependencies

256. Which elements not supported by hql?

- A.sub**
- B.where
- C.having
- D.select

257. What does hibernate batch update and delete do?

- a.doesnt effect any versioning columns(update only);
- b.can only be against a single object type;
- c.understands the instance;
- d.data is modified directly in db.
- e. all of above**

258. does sessionLocaleResolver interceptor detects if a special parameter is present in current Http req?

**No**

259. Which of the following are true about 'clean' maven life cycle

- a.used to build the application

b.generates site documentaion for the project

**c.cleans up artefacts created by prior builds**

d.none

260.J2EE integration with hibernate is very difficult.

a) TRUE

**b) FALSE**

261. Which clause allows you to narrow the list of instances returned?

a) Aggregate function

**b) Where clause**

c) Select clause

d) joins

262. Constructor injection is difficult to inject. State True or False (doubt)

**a) TRUE**

b) FALSE

263. Which of the following great future if you can manage in long term?

**A) constructor injection**

B) schema mapping

C) classpath prefix

D) autowiring

264. Session.beginTransaction method begins a unit of work and returns the associated Transaction object.

**A) true**

B>false

265. How many bean scopes are specified in singleton by default?

a.6

b.7

c.5

**d.none**

266. Hibernate inhibits you to express queries in its own portable SQL extension (HQL)as well as in native SQL ,or with an object oriented criteria

**a>true**

b)False

267. Tags generated by form tag lib are compliant with xhtml-1.0 strict specification and attendant dtd.

**a) True**

b) false

268. Archetype is a maven plugin whose task is to create a project structure as per its template

**c) True**

d) false

269. how do u provide configuration metadata to spring container?

**a.xml based config fle**

**b.annotation based config**

**c.java based config**

270. Spring applications is tightly coupled because of dependency injection

a)True

**b)False**

271. Named queries are created via which level of annotations on entities?

a.all-level

b.high-level

c.low

**d.class level**

272. The SessionFactory is heavyweight object.

A) false

**B ) true**

273. What is the difference between get() and load() methods of session object?

A) get() returns null if no data is present where as load throws ObjectNotFoundException exception in such case.

B) get() always hits the database whereas load() method doesn't hit the database.

C) get() returns actual object whereas load() returns proxy object.

**D)All of the above.**

274. The test module supports the testing of spring components with junit for testing

**a) True**

b) false

275. In controller which is responsible for rendering the page in spring mvc(not sure)

a.browser

**b.http**

c.database

d.application

276. XML Schema-based configuration introduced in **Spring 2.0**

277. Spring can organize which type of objects?

a.application layer

**b.database layer**

c.network

d.browser

278. Which is not a module in spring framework? (ORM/DAO/MVC/none)----**none**

279. Hibernate is an open ORM tool for java(t/f)-----**true**

280. Which element of hbm.xml automatically generate the primary key values?

A) id

**B)generator**

C)primaryKey

D)None of the above.

281.The Spring MVC pattern does not separate the different aspects of the application into input logic, business logic, and UI logic.

a) true

**b) false**

282.use of addclass function

a) it is used to convert java class name into file name

b) with the file name, input stream, reader will be processed

c) using add class, other classes will be used efficiently.

283.Constructors in a class can be?

a. may be defined as private

b. Contains same name as class

c. used to create objects

**d. all the above**

284. Spring is tightly coupled framework using DI.

a) True



**b) False**

285. Which is correct?

- a. Hibernate is an object oriented query language
- b. It is database independent
- c. it supports pagination
- d. HQL statements will be converted to SQL or other language the database supports
- e. all the above**

286. Which State does data contains----- **model**

287. Using the Spring AOP framework, what are the joinpoint methods of the following pointcut expressions?

execution(public \* \*(..))

- a. The execution of all public method**
- b. The execution of all public method returning a value
- c. The execution of all public method having at least one parameter
- d. The execution of all public method in class belonging to the default java package

288. Identify the annotation which simply indicates that the affected bean property must be populated at configuration time, through an explicit property value in a bean definition or through autowiring. The container throws BeanInitializationException if the affected bean property has not been populated.

**@Required**

289 What ORM stands for?

- A) Object Relation Map
- B)Object Relational Mapping**
- C)Object Record Mapping
- D)None of the above.

290 Which of the following is true about configuration component of Hibernate?

- A) The Configuration object is the first Hibernate object you create in any Hibernate application.
- B)The Configuration object is usually created only once during application initialization.
- C)The Configuration object represents a configuration or properties file required by the Hibernate.
- D)All of the above.**

291 Session.createQuery creates a new instance of Query for the given HQL query string.

- A) True**
- B)False

292. Which element of hbm.xml defines maps the unique ID attribute in class to the primary key of the database table?

- A) Id**
- B)Generator
- C)Primary Key
- D)None of the above.

293. Which of the following element maps java.util.SortedMap property in hibernate?

- A) <set>
- B)<list>
- C)<bag>
- D)<map>**

294. What is lazy loading?

- A) Lazy loading is a technique in which objects are loaded on demand basis.**
- B)Lazy loading is a technique in which objects are persisted on demand basis.
- C)Both of the above.
- D)None of the above.

295. What is first level cache in hibernate?

- A) The first-level cache is the Session based cache.**

- B)The first-level cache is the SessionFactory based cache.
- C)Both of the above.
- D)None of the above.

296. When a Transactional concurrency strategy is to be used?

- A) Use it for reference data only.
- B)Use this strategy for read-mostly data where it is critical to prevent stale data in concurrent transactions.**
- C)Use this strategy if data hardly ever changes and a small likelihood of stale data is not of critical concern.
- D)None of the above.

297. Which of the following is a core component of Hibernate?

- A) Transaction
- B)SessionFactory
- C)Session
- D)All of the above**

298. Which of the following is true about @GeneratedValue annotation?

- A) @GeneratedValue annotation takes two parameters strategy and generator.
- B)@GeneratedValue annotation provides the primary key generation strategy to be used.
- C)Both of the above.**
- D)None of the above.

299. Which of the following is not an ORM framework?

- A) Castor
- B)Spring DAO
- C)Hibernate
- D)NoSQL**

300. Which of the following is true about SessionFactory object in hibernate?

- A) The SessionFactory is heavyweight object.
- B)SessionFactory object is created during application start up and kept for later use.
- C)You would need one SessionFactory object per database using a separate configuration file.
- D)All of the above.**

301. Which of the following is true about transient state of a persistent entity?

- A) A new instance of a persistent class which is not associated with a Session
- B)A new instance of a persistent class which has no representation in the database.
- C)A new instance of a persistent class which has no identifier value.
- D)All of the above.**

302. Which method is used to re-read the state of the given instance from the underlying database?

- A) Session.refresh()**
- B)Session.get()
- C)Session.reload()
- D)Session.retrieve()

303. Which of the following element maps java.util.List property in hibernate?

- A) <set>
- B)<list>**
- C)<bag>
- D)<map>

304. Child objects are not loaded when parent is loaded/populated from database. What this technique is called?

- A) Eager Loading
- B)Lazy Loading**
- C)Request based Loading

D)None of the above.

305. What HQL stands for?

**A) Hibernate Query Language**

B)High Query Language

C)Hybrid Query Language

D)None of the above.

306. Form tags are available in springs is more compatible with html tags for better development

State True or False

**a) true**

b) false

307. A Session is used to get a physical connection with a database.

**A) true**

B>false

308. Which of the following is true about HQL?

A) Hibernate supports named parameters in its HQL queries.

B)HQL supports a range of aggregate methods, similar to SQL.

**C)Both of the above.**

D)None of the above.

309. Which of the following is true about hibernate. Dialect property in hibernate configuration?

**A) This property makes Hibernate generate the appropriate SQL for the chosen database.**

B)This property makes Hibernate generate the appropriate java code for the chosen database.

C)Both of the above.

D)None of the above.

310. Which method is used to save the state of the given instance from the underlying database?

A) Session. Store ()

B)Session. Keep ()

**C)Session. Save ()**

D)Session. Load ()

311. Which of the following is correct about dependency injection?

**A) It helps in decoupling application objects from each other.**

B)It helps in deciding the dependencies of objects.

C)It stores objects states in database.

D)It stores object states in file system.

312. Configure single sessionFactory per database, using separate configuration file.

**a) True**

b) False

313. When a Read-write concurrency strategy is to be used?

A) Use it for reference data only.

**B)Use this strategy for read-mostly data where it is critical to prevent stale data in concurrent transactions.**

C)Use this strategy if data hardly ever changes and a small likelihood of stale data is not of critical concern.

D)None of the above.

314. What is Advice?

A) This is the way to instruct object to behave in certain manner.

B)This is used to inject values in objects.

**C)This is the actual action to be taken either before or after the method execution.**

D)This is not invoked during program execution by Spring AOP framework.

315. What is Introduction?

A) An introduction represents a point in your application where you can plug-in AOP aspect.

B)This is used to inject values in objects.

C)This is not invoked during program execution by Spring AOP framework.

**D)An introduction allows you to add new methods or attributes to existing classes.**

316. How to use ref keyword in beans.xml?

A) Using setter method only.

B)Using constructor argument only.

**C)Using setter method and constructor argument both.**

D)None of the above.

317. By default a bean is eagerly loaded.

A) False

**B)True**

318.A bean must have id attribute in beans configuration file.

A) True

**B)False**

319. What is a DispatcherServlet?

A) DispatcherServlet is used for transaction management.

B)DispatcherServlet is used for AOP.

**C)DispatcherServlet handles all the HTTP requests and responses.**

D)DispatcherServlet is used for Dependency injection.

320. Which of the statement is not correct?

A) Core and beans modules provide the fundamental parts of the framework, including Dependency Injection feature.

B)The SpEL module provides a powerful Expression Language for querying and manipulating an object graph at runtime.

C)Aspects module provides integration with AspectJ.

**D)None of the above.**

321. What is singleton scope?

**A) This scopes the bean definition to a single instance per Spring IoC container.**

B)This scopes the bean definition to a single instance per HTTP Request.

C)This scopes the bean definition to a single instance per HTTP Session.

D)This scopes the bean definition to a single instance per HTTP Application/ Global session.

322. Which of the following object is used to create SessionFactory object in hibernate?

**A) Configuration**

B)Session

C)SessionFactory

D)Transaction

323. What is Weaving?

A) Weaving is the process of injecting values in objects to create an advised object.

**B)Weaving is the process of linking aspects with other application types or objects to create an advised object.**

C)This is used to inject values in objects.

D)Weaving is used to check object dependencies.

324. Which ORM Spring supports ?

A) Hibernate

B)iBatis

C)JPA

**D)All of above.**

325. How to handle shut down of IoC container?

A) Using shutdownHook()



- B)Using shutdownHandler()
- C)Using registerHook()
- D)Using registerShutdownHook()**

326. Which of the following class can be used to execute Sql queries in spring?

- A)JdbcTemplate**
- B) JDBCHelper
- C)DBHelper
- D)DBTemplate

327. Which is the correct implementation class of BeanFactory?

- A) XmlBeanFactory**
- B)ClassPathBeanFactory
- C)FileSystemBeanFactory
- D)AdvancedBeanFactory

328. What is bean autowiring?

- A) Autowiring lets Spring resolve collaborators (other beans) for your bean by inspecting the contents of the BeanFactory without using <constructor-arg> and <property> elements.**
- B)Autowiring injects values in spring beans.
- C)Autowiring injects one bean into another.
- D)Autowiring helps in wiring a list of values, allowing duplicates.

329. How to get object of a service in spring framework?

- A) Using new keyword
- B)Using dependency injection**

330. If a bean is scoped to HTTP request, scope is

- A) session
- B)global-session

C)prototype

**D)request**

331. Can be bean be configured to have an inner bean?

**A) True**

B)False

332. What is global-session scope?

**A) This scopes a bean definition to an HTTP Application/ Global session.**

B)This scopes the bean definition to Spring IoC container.

C)This scopes the bean definition to HTTP request.

D)This scopes the bean definition to HTTP Session.

333. What is Target object?

A) A represents a object in your application where you can plug-in AOP aspect.

**B)The object being advised by one or more aspects, this object will always be a proxy object, also referred to as the advised object.**

C)This is used to inject values in objects.

D)This is not invoked during program execution by Spring AOP framework.

334. Core container has AOP as one of its module.

**A) True**

B)False

335. Which class is used to map a database row to a java object in spring?

A) ResultSet

**B)RowMapper**

C)RowSetMapper

D)ResultSetMapper

336. Which are the modules of Data Access/ integration layer?

**A) JDBC, ORM, OXM, JMS, Transactions**

B)JDBC, ORM, OXM, JMS

C)JDBC, ORM, Web, Beans

D)JDBC, ORM, OXM, JMS

337. Which of the statement is correct?

A) The JDBC module provides a JDBC-abstraction layer that removes the need to do tedious JDBC related coding

B)The ORM module provides integration layers for popular object-relational mapping APIs, including JPA, JDO, Hibernate, and iBatis.

C)The Java Messaging Service JMS module contains features for producing and consuming messages.

**D)All of the above.**

338. What is true about <map> collection configuration elements?

A) This helps in wiring a list of values, allowing duplicates.

B)This helps in wiring a list of values but without any duplicates.

**C)This can be used to inject a collection of name-value pairs where name and value can be of any type.**

D)This tag is not supported.

339. What is true about @Autowired annotation?

A) The @Autowired annotation can be used to autowire bean on the setter method.

B)This annotation provides more fine-grained control over where and how autowiring should be accomplished.

C)The @Autowired annotation can be used to autowire bean on the methods with arbitrary names and/or multiple arguments.

**D)All of above.**

340. How do you turn on annotation wiring?

A) Add <annotation-context:config /> to bean configuration.

B)Add <annotation-config /> to bean configuration.

C)Add <annotation-context-config /> to bean configuration.

**D)Add <context:annotation-config/> to bean configuration.**

341. How after-throwing advice works?

**A) Run advice after a method execution only if method exits by throwing an exception.**

B)Run advice after a class loads only if class throws exception during load time.

C)Run advice after http response is returned with error status.

D)Run advice after http request is processed and an exception occurred.

342. Expression Language/ SpEL was introduced in which version of spring framework.

A) 1.0

B)2.0

**C)3.0**

D)4.0

343. What are the main advantage(s) for using Spring when writing integration tests?

**a) Reuse Spring configuration files of the application**

b) Create mock or stub

**c) Be able to use the rollback after the test pattern**

**d) Use dependency injection**

344. What is true about <set> collection configuration elements?

A) This helps in wiring a list of values, allowing duplicates.

**B)This helps in wiring a list of values but without any duplicates.**

C)This can be used to inject a collection of name-value pairs where name and value can be of any type.

D)This can be used to inject a collection of name-value pairs where the name and value are both Strings.

345. What are the different points where weaving can be applied?

A) Compile time, load time

B)Compile time, run time

C)Run time

**D)Compile time, load Time, Run time**

346. Which of the following is part of Data Access layer in Spring framework?

- A) Beans
- B) Aspects
- C) JMS**
- D) Context

347. What BeanPostProcessor does?

- A) It processes beans once a bean is initialized.
- B) It defines callback methods that you can implement to provide your own instantiation logic, dependency-resolution logic etc.**
- C) It processes beans once a bean is loaded.
- D) It processes beans once a bean exits.

348. Which are the IoC containers in Spring?

- A) BeanFactory, ApplicationContext**
- B) BeanFactory, ApplicationContext, IoCContextFactory
- C) BeanFactory, BeanContext, IoCContextFactory
- D) BeanFactory, ApplicationContext, BeanContext

349. What is no mode of autowiring?

- A) Default setting which means no autowiring and you should use explicit bean reference for wiring.**
- B) Autowiring by property name.
- C) Spring first tries to wire using autowire by constructor, if it does not work, Spring tries to autowire by byType.
- D) Similar to byType, but type applies to constructor arguments.

350. What is ContextRefreshedEvent event?

- A) This event is published when the Servlet Context is either initialized or refreshed.
- B) This event is published when the HTTP Request is received.
- C) This event is published when the HTTP Response is returned.
- D) This event is published when the ApplicationContext is either initialized or refreshed.**

351. How after-returning advice works?

- A) Run advice after a class loads only if class loads successfully.
- B)Run advice after a method execution only if method completes successfully.**
- C)Run advice after http response is returned only if http response is success.
- D)Run advice after http request is processed with no exception.

352. What are the types of the transaction management Spring supports?

- A) Programmatic transaction management
- B)Declarative transaction management
- C)Both of above.**
- D)None of above.

353. What is true about cross-cutting concerns?

- A) The functions that span multiple points of an application are called cross cutting concerns.**
- B)Cross-cutting concerns are conceptually separate from the application's business logic.
- C)Logging is one of the examples of cross cutting concerns.
- D)All of the above.

354. What is true about <props> collection configuration elements?

- A) This helps in wiring a list of values, allowing duplicates.
- B)This helps in wiring a list of values but without any duplicates.
- C)This can be used to inject a collection of name-value pairs where name and value can be of any type.
- D)This can be used to inject a collection of name-value pairs where the name and value are both Strings.**

355. What is byType mode of autowiring?

- A) Default setting which means no autowiring and you should use explicit bean reference for wiring.
- B)Autowiring by property name. Spring tries to match and wire its properties with the beans defined by the same names in the configuration file.

C)Spring first tries to wire using autowire by constructor, if it does not work, Spring tries to autowire by byType.

**D)Autowiring by property type. Spring tries to match and wire a property if its type matches with exactly one of the beans name in configuration file.**

356. What is Join point?

A) This represents a point in your application which joins two objects.

B)This represents a point in your object where you join values.

C)This represents a point in your object where you join injected values.

**D)This represents a point in your application where you can plug-in AOP aspect.**

357. Select the right statement about referring a Spring configuration file inside the package com.example.myapp in the below example?

ApplicationContext context = new

ClassPathXmlApplicationContext("classpath:/com.example.myapp.config.xml");(checkbox ques)

a) The classpath: prefix could be omit

b) Package name with dot is not well formatted using the dot character

c) The slash character preceding com.example could be omit

d) **All of the above**

e) None of the above

358. If a bean can be created any number of times, scope is

A) session

B)global-session

**C)prototype**

D)request

359. What is spring?

**A) Spring is an open source development framework for enterprise Java.**

- B)Spring is a proprietary framework.
- C)Spring is a development framework for .Net applications.
- D)Spring is a development framework for PHP based applications.

360. What is prototype scope?

- A) This scopes a single bean definition to have any number of object instances.**
- B)This scopes the bean definition to a single instance per HTTP Request.
- C)This scopes the bean definition to a single instance per HTTP Session.
- D)This scopes the bean definition to a single instance per HTTP Application/ Global session.

361. What does @Required annotation mean?

- A) This annotation indicates that bean property must be populated by the user.
- B)This annotation indicates that bean property is required while saving the bean data to database.
- C)This annotation simply indicates that the affected bean property must be populated at configuration time, through an explicit property value in a bean definition or through autowiring.**
- D)This annotation indicates that bean property is required while serializing the bean.

362. How before advice works?

- A) Run advice before a class loads.
- B)Run advice before a method execution.**
- C)Run advice before http response is to be returned.
- D)Run advice before http request is to be processed.

363. Which of the following database is not supported using jdbcTemplate?

- A) MySql
- B)PostgresSql
- C)NoSql**
- D)Oracle



364. What is the scope of stateless bean?

A) global-session

**B) singleton**

C) prototype

D) request

365. Which are the modules of core container?

**A) Beans, Core, Context, SpEL**

B) Core, Context, ORM, Web

C) Core, Context, Aspects, Test

D) Bean, Core, Context, Test

366. What is/are typically case(s) where you usually need to manually instantiate an ApplicationContext?

a) In a web application

b) In an integration test running with the SpringJUnit4ClassRunner

**c) In a standalone application started with a main method**

d) None of the above

367. What is aspect?

A) Aspect is a way to do the dependency injection.

**B) A module which has a set of APIs providing cross-cutting requirements.**

C) Aspect is used to log information of application.

D) Aspect represents properties of spring based application.

368. What are the types of advice?

A) then, after, after-returning, after-throwing, around

B) When, after, after-returning, around

C) Where, after, after-returning, after-throwing, around

**D) Before, after, after-returning, after-throwing, around**

367. Can we integrate Struts with Spring.

**A) Yes**

B)No

368. Which are the different modes of autowiring?

**A) no, byName, byType, constructor, autodetect**

B)no, byName, byType, constructor, autocorrect

C)byName, byContent, constructor, autodetect

D)byName, byContent, setter, autodetect

369. By default a bean is eagerly loaded.

A) False

**B)True**

370. Where do you define DispatcherServlet?

A) In Beans configuration file.

**B)Web.xml file**

C)Meta-inf/dispatcher.xml

D)Web-inf/ dispatcher.xml

371. What is true about BeanPostProcessor?

A) It is a concrete class.

**B)It is an interface.**

C)It is an abstract class.

D)None of the above.

372. Hibernate session is the main runtime interface between java applications and hibernate.

**a) TRUE**

b) FALSE

373. Which of the following is true about @Column annotation?

- A) The @Column annotation is used to specify the details of the column to which a field or property will be mapped.
- B)The @Column annotation is applied on a class.
- C)Both of the above.**
- D)None of the above.

374. What is @Controller annotation?

- A) The @Controller annotation indicates that a particular class serves the role of a controller.**
- B)The @Controller annotation indicates how to control the transaction management.
- C)The @Controller annotation indicates how to control the dependency injection.
- D)The @Controller annotation indicates how to control the aspect programming.

375. What is ACID in transactional management?

- A) Accurate, Controlled, Isolation, Durability
- B)Atomicity, Consistency, Independent, Done
- C)Atomicity, Consistency, Isolation, Durability**
- D)Accurate, Controlled, Independent, Done

376. What is RequestHandledEvent:event?

- A) This event is published when the Servlet Context is either initialized or refreshed.
- B)This event is published when the HTTP Request is received.
- C)This event is published when the HTTP session is initialized or refreshed.**
- D)This event is published when the HTTP Request is serviced.

377. Application contexts provide a generic way to load file resources, such as images.

- a) True**
- b) False

378. What is easier to do by using Spring JMS support? Select one or more correct answers.

- a. **Register any Spring bean as JMX MBean**
- b. **Register an existing MBean with a MBeanServer**
- c. **Accessing to remote MBean**
- d. **Control the attributes and the operations of a Spring bean exposes as a MBean**

379. What is the scope of bean in portlet context?

- A) session
- B)global-session**
- C)prototype
- D)request

380. What is autodetect mode of autowiring?

- A) Similar to byType, but type applies to constructor arguments. If there is not exactly one bean of the constructor argument type in the container, a fatal error is raised.
- B)Autowiring by property name. Spring tries to match and wire its properties with the beans defined by the same names in the configuration file.
- C)Spring first tries to wire using autowire by constructor, if it does not work, Spring tries to autowire by byType.**
- D)Autowiring by property type. Spring tries to match and wire a property if its type matches with exactly one of the beans name in configuration file.

381. What is Pointcut?

- A) This represents a point in your application where you can plug-in AOP aspect.
- B)This is a set of one or more joinpoints where an advice should be executed.**
- C)This is used to inject values in objects.
- D)This is invoked during program execution by Spring AOP framework.

382. Which class acts as IoC Container?

- A) ServletContext
- B)DispatcherServlet**

**C)ApplicationContext**

D)None of the above

383. What is constructor mode of autowiring?

A) Autowiring by property name. Spring tries to match and wire its properties with the beans defined by the same names in the configuration file.

B)Spring first tries to wire using autowire by constructor, if it does not work, Spring tries to autowire by byType.

C)Autowiring by property type. Spring tries to match and wire a property if its type matches with exactly one of the beans name in configuration file.

**D)Similar to byType, but type applies to constructor arguments. If there is not exactly one bean of the constructor argument type in the container, a fatal error is raised.**

384. How bean life cycle can be controlled?

A) Using init() only

B)Using InitializingBean class only

C)Using DisposableBean class only

**D)Using All of above**

385. Which of the following class can be used to call Stored Procedures in spring?

A) SPHelper

B)JdbcTemplateCall

C)JdbcTemplate

**D)SimpleJdbcCall**

386. Which element of hbm.xml is used to map a Java class property to a column in the database table?

A) id

B)generator

**C)property**

D)class

387. How around advice works?

**A) Run advice before and after the advised method is invoked.**

B)Run advice before and after a class is loaded.

C)Run advice before and after http response is returned.

D)Run advice before and after http request is processed.

388. validation, rejectIfEmptyOrWhiteSpace or rejectIfEmpty is used- **True**

389. Cache is simply to enhance the performance and it sits between application and database.

a) **True**

b) False

390.Hibernate helps in mapping of java objects with database tables

a) **true**

b) false

391. Scope that are used only in web aware application context

- Request
- Session
- Global session

392. What is Query level cache in hibernate?

**A) The query-level cache is cache for query result sets that integrates closely with the second-level cache.**

B)The query-level cache is the Session based cache.

C)Both of the above.

D)None of the above.

393. Which of the following is a concurrency strategy in hibernate?

A) Transactional

B)Read-write

C)No strict-read-write.

**D)All of the above.**

394. Which of the following is true about @Id annotation?

A) Hibernate detects that the @Id annotation is on a field.

B)Hibernate assumes that it should access properties on an object directly through fields at runtime.

**C)Both of the above.**

D)None of the above.

395. Which of the following is true about HQL?

A) HQL queries are translated by Hibernate into conventional SQL queries which in turns perform action on database.

B)The AS clause can be used to assign aliases to the classes in HQL queries.

**C)Both of the above.**

D)None of the above.

396. Which of the following is true about ORM?

A) ORM stands for Object-Relational Mapping.

B)ORM is a programming technique for converting data between relational databases.

**C)Both of the above.**

D)None of the above.

397. Which of the following is true about Query object in hibernate?

A) Query objects Hibernate Query Language (HQL) string to retrieve data from the database and create objects.

B)Query objects SQL string to retrieve data from the database and create objects.

C)A Query instance is used to bind query parameters, limit the number of results returned by the query, and finally to execute the query.

**D)All of the above.**

398. Session.createQuery creates a new instance of Query for the given SQL query string.

**A) true**

B>false

399. Which method is used to get a persistent instance from the datastore?

A) Session.read()

**B)Session.get()**

C)Session.retrieve()

D)Session.fetch()

400. Which of the following is true about <generator> element?

A) The <generator> element within the id element is used to automatically generate the primary key values

B)Set the class attribute of the generator element is set to native to let hibernate pick up either identity, sequence or Hilo algorithm to create primary key depending upon the capabilities of the underlying database.

**C)Both of the above.**

D)None of the above.

401. Which of the following element is used to represent one-to-many relationship in hibernate?

**A) <one-to-many>**

B)<one-many>

C)<OneToMany>

D)None of the above.

402. Is query level caching mandatory in hibernate?

A) true

**B>false**

403. When a Read-only concurrency strategy is to be used?

A) Use it for reference data only.

B)Use this strategy for read-mostly data where it is critical to prevent stale data in concurrent transactions.



**C)Use this strategy if data hardly ever changes and a small likelihood of stale data is not of critical concern.**

D)None of the above.

404. Which of the following is true about hibernate annotations?

A) Hibernate Annotations is the powerful way to provide the metadata for the Object and Relational Table mapping.

B)All the metadata is clubbed into the POJO java file along with the code this helps the user to understand the table structure and POJO simultaneously during the development.

**C)Both of the above.**

D)None of the above.

405. Which of the following is not a core component of Hibernate?

**A) JDBC**

B)SessionFactory

C)Session

D)Configuration

406. Is Session a thread-safe object?

A) true

**B>false**

407. Which method is used to remove a persistent instance from the datastore?

**A) Session.delete()**

B)Session.remove()

C)Session.del()

D)Session.rm()

408. Which method is used to save or update the state of the given instance from the underlying database?

A) **Session.saveOrUpdate()**

B)Session.keep()

C)Session.update()

D)Session.load()

409. Is first level caching mandatory in hibernate?

A) **true**

B>false

410.which of the following is an invalid annotation?

a) @RequestParam

b) @PathVariable

c) **@Responsevalid**

d) @RequestMapping

411. POM file should contain versionID, groupId, ArtifactId----- **True**

412. Types of aspect implementation

- XML schema based
- Java Based
- @AspectJ based

413. How could you implement a JMS Listener using the Spring JMS support? Select one or more correct answers.

- a. **By implementing the javax.jms.MessageListener interface**
- b. **By implementing the SessionAwareMessageListener interface provided by Spring**
- c. Without any code, only using the jms namespace provided by Spring
- d. **By writing a single POJO without parent class or interface**

414. Which of the following is true about Transaction object in hibernate?

- A) A Transaction represents a unit of work with the database.
- B) Transactions in Hibernate are handled by an underlying transaction manager.
- C) This is an optional object and Hibernate applications may choose not to use this interface, instead managing transactions in their own application code.
- D) All of the above**

415. What do you have to do even if you are using the RMI Spring Remoting support? Select one or more correct answers.

- a. Implements the Remote interface
- b. Extends the RemoteObject class
- c. Catching the RemoteException exception
- d. Implements the Serializable interface**

416. What is a view resolver?

- a) class
- b) interface**
- c) object
- d) argument

417. Model is used to encapsulate the response data

- a) true**
- b) false

418. Which one interpret user input and transform it into a model that is represented to the user by the view.

- a) controller**
- b) dispatcher servlet
- c) model
- d) browser

419. Which one runs advice before and after the advised method is invoked.

- a) after
- b) before
- c) **around**
- d) none of the above

420. Length attribute of @column annotation permits the size of the column used to map a value particularly for a string value.

- a) **true**
- b) false

421. Application contexts can publish events to beans that are registered as listeners.

**a) true**

b) false

422. which is not used as java annotation

- a) @component
- b) @bean
- c) @configuration
- d) **none**

423. What the three inheritance models of hibernate?

Hibernate has following three inheritance models:

**a. Tables Per Concrete Class**

**b. Table per class hierarchy**

**c. Table per sub-class**

424. To use spring MVC validator, which of the following is used to start the validator?- ve to select more than 1 so I chose al the check box..

- A) override supports
- B) override validate
- C) override validator**
- D) override creates

425. index and type can be used in the constructor-arg at the same time?

State True or False

**a)TRUE**

b) FALSE

426. Spring offers four types of collection configuration elements.

- List
- Set
- Map

427. Which of the following database is supported by Hibernate?

A) DB2/NT

B)PostgreSQL

C)Sybase SQL Server

**D)All of the above**

428. Configuration object is used to create SessionFactory object in hibernate.

**A) true**

B>false

429. Which of the following is the root node of hbm.xml file?

**A) hibernate-mapping**

B)hibernate-config

C)class-mapping

D)class-config

430. What is exact about the HttpInvokerServiceExporter? Select one or more correct answers.

- a. **Has to run into a HTTP server as Jetty**
- b. Could process both POST and GET requests
- c. **Could be used with any http client as Jakarta Commons HttpClient**
- d. Could consume SOAP http request

431. What is the method that is not provided by the JmsTemplate Spring class?

- a. convertAndSend
- b. **onMessage**
- c. receiveAndConvert
- d. setDefaultDestination

432. How is named the bean that is defined in the following configuration class. Select a single answer.

```
@Configuration
public class ApplicationConfig {
    @Autowired
    private DataSource dataSource;
    @Bean
    ClientRepository clientRepository() {
        ClientRepository accountRepository = new JpaClientRepository();
        accountRepository.setDataSource(dataSource);
        return accountRepository;
    }
}
```

- 1. JpaClientRepository
- 2. jpaClientRepository
- 3. **clientRepository**
- 4. Two beans are defined : a data souce and a repository

433. How could you externalize constants from a Spring configuration file or a Spring annotation into a .properties file? Select one or more answers

- a. By using the <util:constant /> tag
- b. By declaring the ConstantPlaceholderConfigurer bean post processor
- c. **By using the <context:property-placeholder /> tag**
- d. By using the c: namespace

434. What is the purpose of the @ManageResource annotation? Select a single answer.

- a. Expose a bean's property (getter/setter) to JMX
- b. Expose a bean's method to JMX

- c. **Identify a Spring bean as a JMX MBean**
- d. None of the above

435. What are the right affirmations about the @PostConstruct, @Resource and the @PreDestroy annotations?

- a. **Those annotations are specified in the JSR-250**
- b. The Spring Framework embedded those annotation
- c. **The <context:component-scan> tag enable them**
- d. **The <context:annotation-config > tag enable them**
- e. **Declaring the CommonAnnotationBeanPostProcessor enable them**

436. What is/are typically case(s) where you usually need to manually instantiated an ApplicationContext?

- a. In a web application
- b. In an integration test running with the SpringJUnit4ClassRunner
- c. **In a standalone application started with a main method**
- d. None of the above

437. Select the right statement about referring a Spring configuration file inside the package com.example.myapp in the below example?

```
ApplicationContext context = new
```

```
ClassPathXmlApplicationContext("classpath:/com.example.myapp.config.xml");
```

- a) The classpath: prefix could be omit
- b) Package name with dot is not well formatted using the dot character
- c) The slash character preceding com.example could be omit
- d) **All of the above**
- e) None of the above

438. How to auto-inject into a field a bean by its name? Select one or more response.

- a) With the name attribute of the @Autowired annotation
- b) By using the single @Qualifier annotation
- c) **By using both the @Autowired and the @Qualifier spring annotations**

**d) By using the @Autowired annotation and naming the field with the bean name**

439. What are the main advantages of using interfaces when designing business services? Select one or more answers.

- a. Mocking or stubbing the service**
- b. Be able to use the Spring auto-injection
- c. Can do dependency checking
- d. Loosely coupled code**

440. Select one or many correct answers about spring bean life cycle.

- 1. The method annotated with @PostConstruct is called after bean instantiation and before properties setting of the bean
- 2. The method @PreDestroy of a prototype bean is called when the bean is garbage collected
- 3. The init() method declared in the init-method attribute of a bean is called before the afterPropertiesSet callback method of the InitializingBean interface
- 4. The method annotated with @PostConstruct is called before the afterPropertiesSet callback method of the InitializingBean interface**

441. Given the following configuration class, what are correct affirmations? Select one or more answers.

```
public class ApplicationConfig {  
    private DataSource dataSource;  
    @Autowired  
    public ApplicationConfig(DataSource dataSource) {  
        this.dataSource = dataSource;  
    }  
    @Bean(name="clientRepository")  
    ClientRepository jpaClientRepository() {  
        return new JpaClientRepository();  
    }  
}
```

- a. @Configuration annotation is missing**
- b. Default or no-arg constructor is missing**
- c. @Bean name is ambiguous
- d. @Bean scope is prototype

442. What are the features of the XML <context: namespace? Select one or many answers.

- 1. @Transactional annotation scanning
- 2. @Aspect annotation detection enabling
- 3. @Autowired annotation enabling**
- 4. @Component annotation scanning**



443. Select one or more correct statements about developing integration test with Spring support.

- a) A new Spring context is created for each test class
- b) To get a reference on the bean you want to test, you have to call the `getBean()` method of the Spring context
- c) Spring context configuration could be inherits from the super class**
- d) The Spring context configuration file has to be provided to the `@ContextConfiguration` annotation

444. What are the main advantage(s) for using Spring when writing integration tests?

- a. Reuse Spring configuration files of the application**
- b. Create mock or stub
- c. Be able to use the rollback after the test pattern**
- d. Use dependency injection**

445. What are the main advantage(s) for using Spring when writing unit tests?

- a. Reuse Spring configuration files of the application
- b. Use dependency injection
- c. Provide some mocks for servlet classes**
- d. All of the above
- e. None of the above

446. What is right about the spring test module?

- a. It provides an abstraction layer for the main open source mock frameworks
- b. Provides the `@Mock` annotation
- c. It dynamically generates mock objects
- d. All of the above
- e. None of the above**

447. Select correct statement(s) about transactional support of the spring test module.

- 1. Transaction manager could be set within the `@TransactionConfiguration` annotation**
2. Method annotated with `@Before` is executed outside of the test's transaction
3. Spring test may rollback the transaction of a service configured with the `REQUIRES_NEW`

propagation

**4. The transaction of a method annotated with the @Rollback annotation with its default values is rolled back after the method has completed**

448. Considering 2 classes AccountServiceImpl and ClientServiceImpl. Any of these 2 classes inherits from each other. What is the result of the pointcut expressions?

execution(\* \*..AccountServiceImpl.update(..))

&& execution(\* \*..ClientServiceImpl.update(..))

1. Matches public update methods of the 2 classes, whatever the arguments
2. Matches any update methods of the 2 classes, whatever the arguments and method visibility
3. Matches any update methods of the 2 classes, with one more arguments and whatever method visibility

**4. No joint point is defined**

449. Using the Spring AOP framework, what is the visibility of the method matches by the following join point?

@Pointcut("execution(\* \*(..))")

**private void** anyOperation() {};

1. All methods, whereas there visibility
2. All methods, except private method
3. Protected and public methods

**4. Public methods**

500. What are the 2 correct statements about AOP proxy?

- 1. AOP proxies are created by Spring in order to implement the aspect contracts**
2. AOP proxies are always created with a JDK dynamic proxy
3. Only classes that implements a least one interface could be proxied
4. All methods could be proxied

**5. Proxies are created by a BeanPostProcessor**

501. What is an after throwing advice? Select a unique answer.

1. Advice that could throw an exception
- 2. Advice to be executed if a method exits by throwing an exception**
3. Advice that executes before a join point
4. Spring does not provide this type of advice

502. What is an after returning advice? Select a unique answer.

1. Advice to be executed regardless of the means by which a join point exits
2. Advice that surrounds a method invocation and can perform custom behavior before and after the method invocation
3. Advice to be executed before method invocation
- 4. Advice to be executed after a join point completes without throwing an exception**

503. What is an advice? Select a unique answer.

- 1. An action taken by an aspect at a particular join point**
2. A point during the execution of a program
3. An aspect and a pointcut
4. A predicate that matches join points

504. What is a pointcut? Select a unique answer.

1. Code to execute at a join point
- 2. An expression to identify joinpoints**
3. An advice and a jointpoint
4. None of the above

505. Select method's signatures that match with the following pointcut:

`execution(* com.test.service..*.*(*))`

- 1. void com.test.service.MyServiceImpl#transfert(Money amount)**
2. void com.test.service.MyServiceImpl#transfert(Account account, Money amount)
- 3. void com.test.service.account.MyServiceImpl#transfert(Money amount)**
4. void com.test.service.account.MyServiceImpl#transfert(Account account, Money amount)
5. None of the above

506. What are the unique correct answers about Spring AOP support?

1. An advice could proxied a constructor's class
- 2. A point cut could select methods that have a custom annotation**
3. Static initialization code could be targeted by a point cut
4. Combination of pointcuts by &&, || and the ! operators is not supported

507. Using the Spring AOP framework, what are the joinpoint methods of the following pointcut expressions?

execution(public \* \*(..))

- 1. The execution of all public method**
2. The execution of all public method returning a value
3. The execution of all public method having at least one parameter
4. The execution of all public method in class belonging to the default java package

508. 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.

1. It is mandatory for using Spring exception translation mechanism
- 2. May be improve performance when using Hibernate**
3. Spring optimizes its transaction interceptor
- 4. Provides safeguards with Oracle and some other databases**

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

- 1. JDBC**
2. NoSQL
- 3. Hibernate**
- 4. JPA**

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

- 1. Data source access**
2. Open/close data source connection
3. JDBC exception wrapping into DataAccess Exception
4. JDBC statement execution

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

1. RowMapper
2. RowCallbackHandler
- 3. ResultSetExtractor**
4. ResultSetMapper

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

1. Listing entity classes annotated with @Entity
2. Scanning a package to detect annotated entity classes (with @Entity)
- 3. Listing hibernate XML mapping configuration file (.hbm.xml)**
4. All above

513. What is/are incorrect statements about XML declaration of the transaction manager bean? Select one or more answers.

1. The tx namespace provides JTA transaction manager declaration shortcut syntax
- 2. Id of the bean has to be *transactionManager***
3. Depending the application persistence technology, the HibernateTransactionManager or the DataSourceTransactionManager could be used as bean class
4. Default transaction timeout could be given

514. Assuming @Transactional annotation support is enabled and the transferMoney method is called through a Spring AOP proxy, what is the behavior of the following code sample?

```
@Transactional(propagation=Propagation.REQUIRED)
public void transferMoney(Account src, Account target, double amount) {
    add(src, -amount);
    add(src, amount);
}

@Transactional(propagation=Propagation.REQUIRES_NEW)
public void add(Account account, Double amount) {
    // IMPLEMENTATION
}
```

- a. The add() method executes code in a new transaction

- b. **The add() method uses the transaction of the transferMoney() method**
- c. When calling the add() method, an exception is thrown
- d. Other behavior

515. Does Spring provides programmatic transaction management? Select a unique answer.

- a. **Yes with the TransactionTemplate class**
- b. Yes with the TransactionService class
- c. Yes using the @Transactional bean post processor
- d. No

516. What is the transaction behavior of the PROPAGATION\_REQUIRES\_NEW mode? Select a unique answer.

1. If a transaction exists, the current method should run within this transaction. Otherwise, it should start a new transaction and run within its own transaction.

2. If a transaction is in progress, the current method should run within the nested transaction of the existing transaction. Otherwise, a new transaction has to be started and run within its own transaction.

**3. The current method must start a new transaction and run within its own transaction. If there is an existing transaction in progress, it is suspended.**

4. None of the above

517. What is the default rollback policy in transaction management?

- a. Rollback for any Exception
- b. **Rollback for RuntimeException**
- c. Rollback for checked exceptions
- d. Always commit

518. 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

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

- 1. In a Spring application context XML configuration file
- 2. Into the web.xml file of the web application**
- 3. Into the java code by using annotations
- 4. Into the JSP pages**

520. What is the easiest method to write a unit test?

- 1. `void displayAccount(HttpServletRequest req, HttpServletResponse resp)`  
`throws ServletException, IOException`
- 2. `void displayAccount(HttpServletRequest req, HttpSession session)`  
`throws ServletException, IOException`
- 3. `@RequestMapping("/displayAccount")`  
`String displayAccount(@RequestParam("accountId") int id, Model model)`
- 4. `@RequestMapping("/displayAccount")`  
`String displayAccount(@PathVariable("accountId") int id, Model model)`

521. How could you secure MVC controller with Spring Security? Select a unique answer.

- a) With the `@Secured` annotation
- b) With the `@RolesAllowed` annotation
- c) In a XML security configuration file
- d) All of the above**
- e) None of the above

522. What are the possible mechanisms provided by Spring Security to store user details? Select one or more correct answers.

- a. Database**
- b. JAAS**
- c. LDAP**
- d. Properties file**

523. What is true about Spring security configuration and the security namespace? Select one or more correct answers.

- a. The access attribute of the `intercept-url` tag support both EL and constants together.
- b. The patterns declared into the `intercept-url` tag are analyzed from up to bottom. Winning is the first that matches.**

- a. The patterns declared into the intercept-url tag use by default the java regex syntax.
- b. Security rules may applied depending request parameter

524. A many-to-one association is the most common kind of association where an object can be associated with multiple objects.

**a)true**

b>false

525. what does hibernate do in the listed options?

- a) Guaranteed uniqueness of object
- b) Transparent persistence
- c) Persistence of association and collection
- d) Object relational mapping
- e) all**

526. The bean in the xml file is important for specifying the view resolver and view components

**a)true**

b>false

527. Spring security framework focuses on which of the following?

- a) Providing authorization in java applications
- b) Providing authentication in java applications
- c) Providing both authorization and authentication in java application**
- d) None

528. Spring provides @Validator annotation and Binding Result class through which we can get the errors raised by Validator implementation in the controller request handler method.

**A)true**

B>false

529. spring has which of the ways to minimize XML in spring.config.xml?

- a) Using auto wiring
- b) All**
- c) Using Auto-Discovery of beans



d) Using java based configuration

530.spring provides a comprehensive set of data binding-aware tags for handling form elements when using JSP and spring web MVC

**a)true**

b>false

531.how do you define the scope of a bean

**a) When defining a <bean> in a spring we can declare the scope of a bean**

**b) It can be defined through scope attribute in the bean definition**

**c) The bean scope attribute must be set to prototype**

532.which of the following statements are false?

a)The ORM package provides integration layers for popular ORM API's including JPA,JDO,hibernate and iBatis

b)None

c) The core package is the most fundamental part of the framework and provides Ioc and dependency injection features

533.SessionFactory allows application to create hibernate session by reading hibernate configuration file hibernate.cfg.xml

**a)true**

b>false

534.which of the activities does data filtering do?

**a) Often used for security purpose**

**b) Limit the amount of invisible data by modifying query parameters**

**c) Users often only have access to certain level of information**

**d) Similar to label security in database**

535.which of the following define why spring is necessary?

a) All framework have difficulty to integrate with spring

**b) Easier to test application**

c) Spring framework is unstructured using dependency injection

**d) Less complicated than other framework**

536. to create new xml configuration extension which of the following are relatively simple steps

**a)all**

b)coding one or more BeanDefinitionParser implementation

c)coding a custom NamespaceHandler implementation

d)authoring an XML schema to describe your custom elements

e)registering all artefacts with the spring

537. which of the following statements are view resolver pattern and works in spring MVC?

**a)it is a J2EE pattern which allows a web application to dynamically choose a view technology**

**b) spring MVC framework supplies inbuilt view resolver for selecting view**

**c)view resolver holds mapping of different views ,controller return the name of the view which is then passed to the view resolver for a appropriate view**

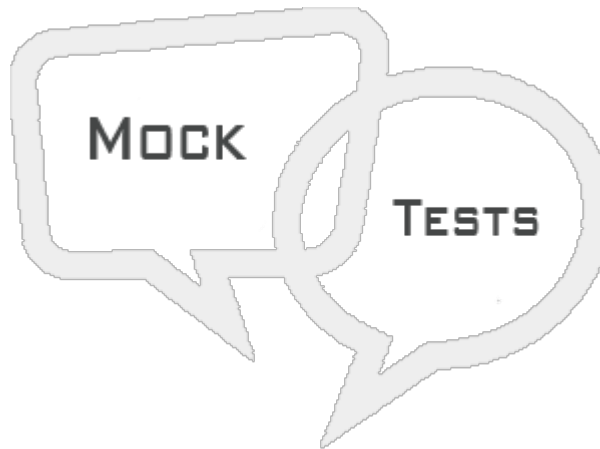
d)its does not support HTML, JSP, Tapestry, JSF and other controller technologies

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## HIBERNATE MOCK TEST I

### Q 1 - What JDBC stands for?

- A - Java DB Connectivity
- B - Java Database Connectivity**
- C - Java Data Bind Connect
- D - Java Data Bind Connector

### Q 2 - Which of the following is true about JDBC?

- A - JDBC stands for Java Database Connectivity.
- B - JDBC provides a set of Java API for accessing the relational databases from Java program.
- C - JDBC APIs enables Java programs to execute SQL statements and interact with any SQL compliant database.
- D - All of the above.**

### Q 3 - What ORM stands for?

- A - Object Relation Map
- B - Object Relational Mapping**
- C - Object Record Mapping
- D - None of the above.

### Q 4 - Which of the following is true about ORM?

- A - ORM stands for Object-Relational Mapping.

B - ORM is a programming technique for converting data between relational databases.

C - Both of the above.

D - None of the above.

**Q 5 - Which of the following is not an ORM framework?**

A - Castor

B - Spring DAO

C - Hibernate

D - NoSQL

**Q 6 - Which of the following is true about Hibernate?**

A - Hibernate is an Object-Relational Mapping *ORM* solution for JAVA.

B - Hibernate is an Object-Relational Mapping *ORM* solution for .NET

C - Both of the above.

D - None of the above.

**Q 7 - Which of the following is true about Hibernate?**

A - Hibernate takes care of mapping Java classes to database tables using XML files and without writing any line of code.

B - Hibernate provides simple APIs for storing and retrieving Java objects directly to and from the database.

C - Hibernate abstracts away the unfamiliar SQL types and provide us to work around familiar Java Objects.

D - All of the above.

**Q 8 - Which of the following database is not supported by Hibernate?**

A - DB2/NT

B - MySQL

C - FoundationDB

D - PostgreSQL

**Q 9 - Which of the following tools/frameworks provides integration with Hibernate?**

A - XDoclet Spring

B - J2EE

C - Maven

D - All of the above.

**Q 10 - Which of the following is not a core component of Hibernate?**

**A - JDBC**

B - SessionFactory

C - Session

D - Configuration

**Q 11 - Which of the following is not a core component of Hibernate?**

A - Transaction

**B - Provider**

C - Criteria

D - Query

**Q 12 - Which of the following is true about configuration component of Hibernate?**

A - The Configuration object is the first Hibernate object you create in any Hibernate application.

B - The Configuration object is usually created only once during application initialization.

C - The Configuration object represents a configuration or properties file required by the Hibernate.

**D - All of the above.**

**Q 13 - Which of the following object is used to create SessionFactory object in hibernate?**

**A - Configuration**

B - Session

C - SessionFactory

D - Transaction

**Q 14 - Which of the following is true about SessionFactory object in hibernate?**

A - SessionFactory object configures Hibernate for the application using the supplied configuration file.

B - SessionFactory object allows for a Session object to be instantiated.

C - The SessionFactory is a thread safe object.

**D - All of the above.**

**Q 15 - Which of the following is true about SessionFactory object in hibernate?**

A - The SessionFactory is heavyweight object.

B - SessionFactory object is created during application start up and kept for later use.

C - You would need one SessionFactory object per database using a separate configuration file.

D - All of the above.

**Q 16 - Which of the following is true about Session object in hibernate?**

A - A Session is used to get a physical connection with a database.

B - The Session object is lightweight.

C - Persistent objects are saved and retrieved through a Session object.

D - All of the above.

**Q 17 - Is SessionFactory a thread-safe object?**

A - true

B - false

**Q 18 - Is Session a thread-safe object?**

A - true

B - false

**Q 19 - Which of the following is true about Transaction object in hibernate?**

A - A Transaction represents a unit of work with the database.

B - Transactions in Hibernate are handled by an underlying transaction manager.

C - This is an optional object and Hibernate applications may choose not to use this interface, instead managing transactions in their own application code.

D - All of the above.

**Q 20 - Which of the following is true about Query object in hibernate?**

A - Query objects Hibernate Query Language *HQL* string to retrieve data from the database and create objects.

B - Query objects SQL string to retrieve data from the database and create objects.

C - A Query instance is used to bind query parameters, limit the number of results returned by the query, and finally to execute the query.

D - All of the above.

**Q 21 - Which of the following is true about hibernate.dialect property in hibernate configuration?**

A - This property makes Hibernate generate the appropriate SQL for the chosen database.

B - This property makes Hibernate generate the appropriate java code for the chosen database.

- C - Both of the above.
- D - None of the above.

**Q 22 - Which of the following is true about transient state of a persistent entity?**

- A - A new instance of a persistent class which is not associated with a Session.
- B - A new instance of a persistent class which has no representation in the database.
- C - A new instance of a persistent class which has no identifier value.
- D - All of the above.

**Q 23 - Which of the following is true about persistent state of a persistent entity?**

- A - You can make a transient instance persistent by associating it with a Session.
- B - A persistent instance has a representation in the database.
- C - A persistent instance has an identifier value.
- D - All of the above.

**Q 24 - Which of the following is true about detached state of a persistent entity?**

- A - Once we close the Hibernate Session, the persistent instance will become a detached instance.
- B - A new instance of a persistent class which is not associated with a Session.
- C - You can make a transient instance detached by associating it with a Session.
- D - None of the above.

**Q 25 - Session.beginTransaction method begins a unit of work and returns the associated Transaction object.**

- A - true
- B - false

## ANSWER SHEET

Question Number	Answer Key
1	B
2	D
3	B
4	C
5	D
6	A

7	D
8	C
9	D
10	A
11	B
12	D
13	A
14	D
15	D
16	D
17	A
18	B
19	D
20	D
21	A
22	D
23	D
24	A
25	A

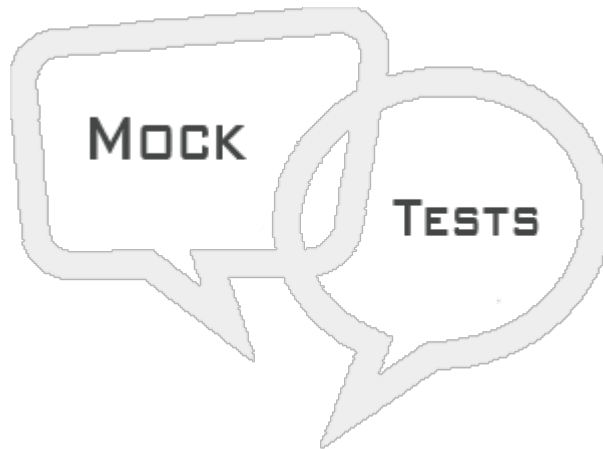


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## HIBERNATE MOCK TEST II

**Q 1 - Session.createCriteria creates a new Criteria instance, for the given entity class, or a superclass of an entity class.**

A - true

B - false

**Q 2 - Session.createQuery creates a new instance of Query for the given HQL query string.**

A - true

B - false

**Q 3 - Session.createSQLQuery creates a new instance of Query for the given HQL query string.**

A - true

B - false

**Q 4 - Session.createSQLQuery creates a new instance of Query for the given SQL query string.**

A - true

B - false

**Q 5 - Which method is used to remove a persistent instance from the datastore?**

A - Session.delete

B - Session.remove

C - Session.del

D - Session.rm

**Q 6 - Which method is used to get a persistent instance from the datastore?**

A - Session.read

B - Session.get

C - Session.retrieve

D - Session.fetch

**Q 7 - Which method is used to re-read the state of the given instance from the underlying database?**

A - Session.refresh

B - Session.get

C - Session.reload

D - Session.retrieve

**Q 8 - Which method is used to save the state of the given instance from the underlying database?**

A - Session.store

B - Session.keep

C - Session.save

D - Session.load

**Q 9 - Which method is used to update the state of the given instance from the underlying database?**

A - Session.store

B - Session.keep

C - Session.update

D - Session.load

**Q 10 - Which method is used to save or update the state of the given instance from the underlying database?**

A - Session.saveOrUpdate

B - Session.keep

C - Session.update

D - Session.load

**Q 11 - Which of the following is the root node of hbm.xml file?**

A - hibernate-mapping

B - hibernate-config

C - class-mapping

D - class-config

**Q 12 - Which of the following elements is used to define specific mappings from a Java classes to the database tables?**

A - property

B - hibernate-config

C - class

D - class-config

**Q 13 - Which of the following is true about <class> element?**

A - The <class> elements are used to define specific mappings from a Java classes to the database tables.

B - The Java class name is specified using the name attribute of the class element.

C - The database table name is specified using the table attribute of the class element.

D - All of the above.

**Q 14 - Which element of hbm.xml defines maps the unique ID attribute in class to the primary key of the database table?**

A - id

B - generator

C - primaryKey

D - None of the above.

**Q 15 - Which of the following is true about <id> element?**

A - The <id> element maps the unique ID attribute in class to the primary key of the database table.

B - The name attribute of the id element refers to the property in the class.

C - The column attribute of the id element refers to the column in the database table.

D - All of the above.

**Q 16 - Which element of hbm.xml automatically generate the primary key values?**

A - id

**B - generator**

C - primaryKey

D - None of the above.

**Q 17 - Which of the following is true about <generator> element?**

A - The <generator> element within the id element is used to automatically generate the primary key values

B - Set the class attribute of the generator element is set to native to let hibernate pick up either identity, sequence or hilo algorithm to create primary key depending upon the capabilities of the underlying database.

**C - Both of the above.**

D - None of the above.

**Q 18 - Which element of hbm.xml is used to map a Java class property to a column in the database table?**

A - id

B - generator

**C - property**

D - class

**Q 19 - Which of the following is true about <property> element?**

A - The <property> element is used to map a Java class property to a column in the database table.

B - The name attribute of the element refers to the property in the class.

C - The column attribute of the element refers to the column in the database table.

**D - All of the above.**

**Q 20 - Which of the following element maps java.util.Set property in hibernate?**

**A - <set>**

B - <list>

C - <bag>

D - <map>

**Q 21 - Which of the following element maps java.util.List property in hibernate?**

A - <set>

**B - <list>**

C - <bag>

D - <map>

**Q 22 - Which of the following element maps java.util.Collection property in hibernate?**

A - <set>

B - <list>

C - <bag>

D - <map>

**Q 23 - Which of the following element maps java.util.Map property in hibernate?**

A - <set>

B - <list>

C - <bag>

D - <map>

**Q 24 - Which of the following element maps java.util.SortedMap property in hibernate?**

A - <set>

B - <list>

C - <bag>

D - <map>

**Q 25 - Which of the following element is used to represent many-to-one relationship in hibernate?**

A - <many-to-one>

B - <many-one>

C - <ManyToOne>

D - None of the above

## ANSWER SHEET

Question Number	Answer Key
-----------------	------------

1	A
---	---

2	A
---	---

3	B
---	---

4	A
---	---

5	A
---	---

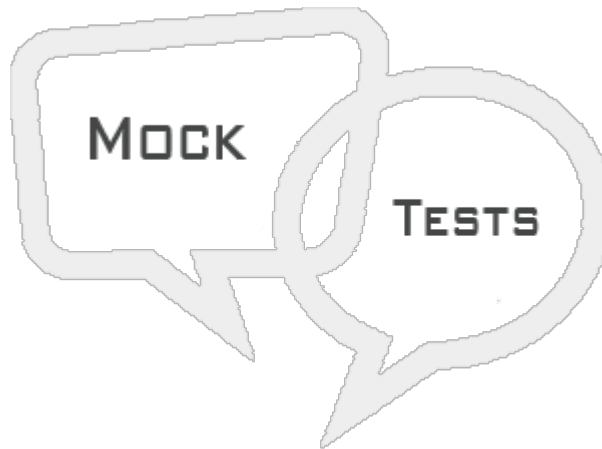
6	B
7	A
8	C
9	C
10	A
11	A
12	C
13	D
14	A
15	D
16	B
17	C
18	C
19	D
20	A
21	B
22	C
23	D
24	D
25	A

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## HIBERNATE MOCK TEST III

**Q 1 - Which of the following element is used to represent one-to-one relationship in hibernate?**

- A - `<many-to-one>`
- B - `<many-one>`
- C - `<ManyToOne>`
- D - None of the above.

**Q 2 - Which of the following element is used to represent one-to-many relationship in hibernate?**

- A - `<one-to-many>`
- B - `<one-many>`
- C - `<OneToMany>`
- D - None of the above.

**Q 3 - Which of the following element is used to represent many-to-many relationship in hibernate?**

- A - `<many-to-many>`
- B - `<many-many>`
- C - `<ManyToMany>`
- D - None of the above.

**Q 4 - Which of the following element is used to represent one-to-many relationship in hibernate?**

A - <one-to-many>

B - <one-many>

C - <OneToMany>

D - None of the above.

**Q 5 - Which of the following situation represents many-to-many relationship?**

A - An employee can have multiple certificates and same certificate can be conferred to many employees.

B - An employee can have multiple certificates.

C - A certificate can be conferred to many employees.

D - All of the above.

**Q 6 - What is the difference between save and persist methods of session object?**

A - There is no difference.

B - save saves the object and returns status whereas persist stores status in different variable.

C - save saves the object and returns the id of the instance whereas persist do not return anything after saving the instance.

D - None of the above.

**Q 7 - What is the difference between get and load methods of session object?**

A - get returns null if no data is present where as load throws ObjectNotFoundException exception in such case.

B - get always hits the database whereas load method doesn't hit the database.

C - get returns actual object whereas load returns proxy object.

D - All of the above.

**Q 8 - What is lazy loading?**

A - Lazy loading is a technique in which objects are loaded on demand basis.

B - Lazy loading is a technique in which objects are persisted on demand basis.

C - Both of the above.

D - None of the above.

**Q 9 - What is value of lazy loading by default?**

A - true

B - false



**Q 10 - Child objects are not loaded when parent is loaded/populated from database. What this technique is called?**

- A - Eager Loading
- B - Lazy Loading**
- C - Request based Loading
- D - None of the above.

**Q 11 - What HQL stands for?**

- A - Hibernate Query Language**
- B - High Query Language
- C - Hybrid Query Language
- D - None of the above.

**Q 12 - Which of the following is true about HQL?**

- A - HQL takes java objects in the same way as SQL takes tables.
- B - HQL is a Object Oriented Query language
- C - HQL is database independent.
- D - All of the above.**

**Q 13 - What is first level cache in hibernate?**

- A - The first-level cache is the Session based cache.**
- B - The first-level cache is the SessionFactory based cache.
- C - Both of the above.
- D - None of the above.

**Q 14 - Whis of the following is true about first level cache in hibernate?**

- A - The first-level cache is the Session cache.
- B - The first-level cache is a mandatory cache through which all requests must pass.
- C - The Session object keeps an object under its own power before committing it to the database.
- D - All of the above.**

**Q 15 - What is second level cache in hibernate?**

- A - The second-level cache is the SessionFactory based cache and is mainly responsible for caching objects across sessions.**
- B - The second-level cache is the Session based cache.

- C - Both of the above.
- D - None of the above.

**Q 16 - Whis of the following is true about second level cache in hibernate?**

- A - The second-level cache is the SessionFactory based cache.
- B - The second-level cache can be configured on a per-class and per-collection basis.
- C - The second-level cache is mainly responsible for caching objects across sessions.
- D - All of the above.

**Q 17 - Is first level caching mandatory in hibernate?**

- A - true
- B - false

**Q 18 - Is second level caching mandatory in hibernate?**

- A - true
- B - false

**Q 19 - Is query level caching mandatory in hibernate?**

- A - true
- B - false

**Q 20 - What is Query level cache in hibernate?**

- A - The query-level cache is cache for query resultsets that integrates closely with the second-level cache.
- B - The query-level cache is the Session based cache.
- C - Both of the above.
- D - None of the above.

**Q 21 - Which of the following is true about query level cache in hibernate?**

- A - Query level cache is an optional feature.
- B - Query level cache requires two additional physical cache regions that hold the cached query results and the timestamps when a table was last updated.
- C - Query level cache is only useful for queries that are run frequently with the same parameters.
- D - All of the above.

**Q 22 - Which of the following is a concurrency strategies in hibernate?**

- A - Transactional
- B - Read-write
- C - Nonstrict-read-write.
- D - All of the above.

**Q 23 - When a Transactional concurrency strategy is to be used?**

- A - Use it for reference data only.
- B - Use this strategy for read-mostly data where it is critical to prevent stale data in concurrent transactions.
- C - Use this strategy if data hardly ever changes and a small likelihood of stale data is not of critical concern.
- D - None of the above.

**Q 24 - When a Read-write concurrency strategy is to be used?**

- A - Use it for reference data only.
- B - Use this strategy for read-mostly data where it is critical to prevent stale data in concurrent transactions.
- C - Use this strategy if data hardly ever changes and a small likelihood of stale data is not of critical concern.
- D - None of the above.

**Q 25 - When a Nonstrict-read-write concurrency strategy is to be used?**

- A - Use it for reference data only.
- B - Use this strategy for read-mostly data where it is critical to prevent stale data in concurrent transactions.
- C - Use this strategy if data hardly ever changes and a small likelihood of stale data is not of critical concern.
- D - None of the above.

## ANSWER SHEET

Question Number	Answer Key
1	A
2	A
3	A
4	A
5	A
6	C

7	D
8	A
9	A
10	B
11	A
12	D
13	A
14	D
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17	A
18	B
19	B
20	A
21	D
22	D
23	B
24	B
25	C

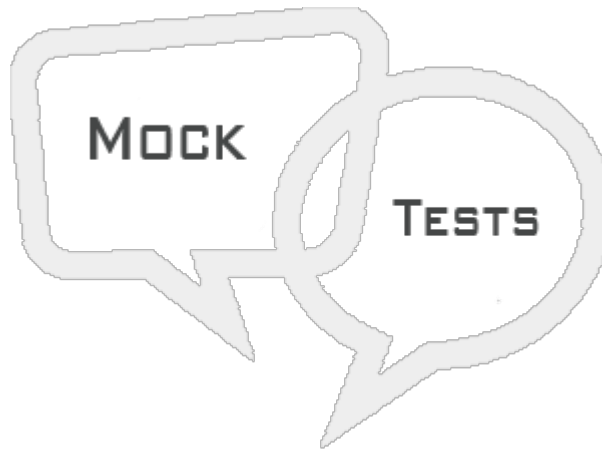
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# HIBERNATE MOCK TEST

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## HIBERNATE MOCK TEST IV

### Q 1 - When a Read-only concurrency strategy is to be used?

- A - Use it for reference data only.
- B - Use this strategy for read-mostly data where it is critical to prevent stale data in concurrent transactions.
- C - Use this strategy if data hardly ever changes and a small likelihood of stale data is not of critical concern.
- D - None of the above.

### Q 2 - Which of the following is true with respect to ORM vs JDBC?

- A - ORM system lets business code access objects rather than DB tables.
- B - ORM system hides details of SQL queries from OO logic.
- C - ORM system helps in Transaction management and automatic key generation.
- D - All of the above.

### Q 3 - Which of the following is true about hibernate?

- A - Hibernate does not require an application server to operate.
- B - Hibernate manipulates Complex associations of objects of your database.
- C - Hibernate minimize database access with smart fetching strategies.
- D - All of the above.

### Q 4 - Which of the following database is not supported by Hibernate?

- A - Oracle

B - Microsoft SQL Server Database

**C - FoundationDB**

D - Informix Dynamic Server

**Q 5 - Which of the following database is supported by Hibernate?**

A - DB2/NT

B - PostgreSQL

C - Sybase SQL Server

**D - All of the above**

**Q 6 - Which of the following is a core component of Hibernate?**

A - Transaction

B - SessionFactory

C - Session

**D - All of the above**

**Q 7 - Configuration object is used to create SessionFactory object in hibernate.**

**A - true**

B - false

**Q 8 - The SessionFactory is heavyweight object.**

A - false

**B - true**

**Q 9 - You would need one SessionFactory object per database using a separate configuration file.**

A - false

**B - true**

**Q 10 - A Session is used to get a physical connection with a database.**

**A - true**

B - false

**Q 11 - The Session object is lightweight.**

A - false

B - true

**Q 12 - Persistent objects are saved and retrieved through a Session object.**

A - false

B - true

**Q 13 - Which of the following is true about hibernate annotations?**

A - Hibernate Annotations is the powerful way to provide the metadata for the Object and Relational Table mapping.

B - All the metadata is clubbed into the POJO java file along with the code this helps the user to understand the table structure and POJO simultaneously during the development.

C - Both of the above.

D - None of the above.

**Q 14 - Which of the following is true about @Id annotation?**

A - Hibernate detects that the @Id annotation is on a field.

B - Hibernate assumes that it should access properties on an object directly through fields at runtime.

C - Both of the above.

D - None of the above.

**Q 15 - Which of the following is true about @Entity annotation?**

A - @Entity annotation marks a class as an entity bean.

B - Class marked with @Entity annotation must have a no-argument constructor that is visible with at least protected scope.

C - Both of the above.

D - None of the above.

**Q 16 - Which of the following is true about @Table annotation?**

A - The @Table annotation allows to specify the details of the table that will be used to persist the entity in the database.

B - The @Table annotation allows to override the name of the table, its catalogue, and its schema, and enforce unique constraints on columns in the table.

C - Both of the above.

D - None of the above.

**Q 17 - Which of the following is true about @GeneratedValue annotation?**

- A - @GeneratedValue annotation takes two parameters strategy and generator.
- B - @GeneratedValue annotation provides the primary key generation strategy to be used.
- C - Both of the above.**
- D - None of the above.

**Q 18 - Which of the following is true about @Column annotation?**

- A - The @Column annotation is used to specify the details of the column to which a field or property will be mapped.**
- B - The @Column annotation is applied on a class.
- C - Both of the above.
- D - None of the above.

**Q 19 - name attribute of @Column annotation permits the name of the column to be explicitly specified.**

- A - true**
- B - false

**Q 20 - length attribute of @Column annotation permits the size of the column used to map a value particularly for a String value.**

- A - false
- B - true**

**Q 21 - nullable attribute of @Column annotation permits the column to be marked NOT NULL when the schema is generated.**

- A - true**
- B - false

**Q 22 - Which of the following is true about HQL?**

- A - Hibernate Query Language *HQL* is an object-oriented query language.
- B - Instead of operating on tables and columns, HQL works with persistent objects and their properties.
- C - Both of the above.**
- D - None of the above.

**Q 23 - Which of the following is true about HQL?**

- A - HQL queries are translated by Hibernate into conventional SQL queries which in turns perform action on database.



B - The AS clause can be used to assign aliases to the classes in HQL queries.

C - Both of the above.

D - None of the above.

**Q 24 - Which of the following is true about HQL?**

A - Hibernate supports named parameters in its HQL queries.

B - HQL supports a range of aggregate methods, similar to SQL.

C - Both of the above.

D - None of the above.

**Q 25 - Which of the following is true about INSERT CLAUSE in HQL?**

A - HQL supports INSERT INTO clause only where records can be inserted from one object to another object.

B - HQL supports INSERT INTO clause without any restriction.

C - Both of the above.

D - None of the above.

## ANSWER SHEET

Question Number	Answer Key
-----------------	------------

1	C
2	D
3	D
4	C
5	D
6	D
7	A
8	B
9	B
10	A
11	B
12	B
13	C
14	C
15	C
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17	C
18	A
19	A
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21	A
22	C
23	C
24	C
25	A

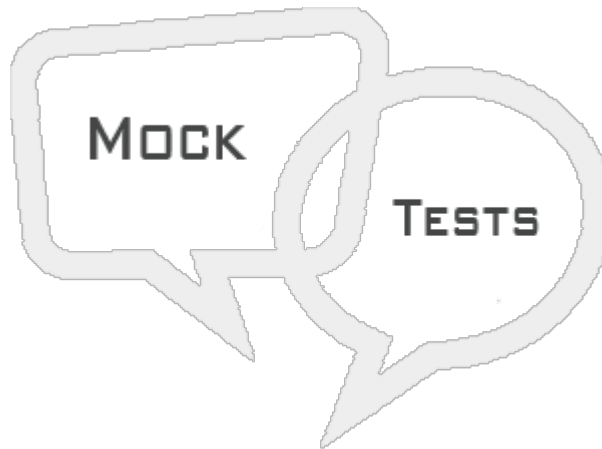
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# SPRING MOCK TEST

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## SPRING MOCK TEST I

### Q 1 - What is spring?

- A - Spring is an open source development framework for enterprise Java.
- B - Spring is a proprietary framework.
- C - Spring is a development framework for .Net applications.
- D - Spring is a development framework for PHP based applications.

### Q 2 - Which of the following is correct assertion about spring?

- A - Spring enables developers to develop enterprise-class applications using POJOs.
- B - Spring is organized in a modular fashion.
- C - Testing an application written with spring is simple because environment-dependent code is moved into this framework.
- D - All of above.

### Q 3 - What is Dependency Injection?

- A - It is a design pattern which implements Inversion of Control for software applications.
- B - It is one of the spring module.
- C - It is a technique to get dependencies of any project.
- D - It is used to promote tight coupling in code.

### Q 4 - Which of the following is correct about dependency injection?

- A - It helps in decoupling application objects from each other.

- B - It helps in deciding the dependencies of objects.
- C - It stores objects states in database.
- D - It stores object states in file system.

**Q 5 - What AOP stands for?**

- A - Aspect Oriented Programming
- B - Any Object Programming
- C - Asset Oriented Programming
- D - Asset Oriented Protocol

**Q 6 - What is true about cross-cutting concerns?**

- A - The functions that span multiple points of an application are called cross cutting concerns.
- B - Cross-cutting concerns are conceptually separate from the application's business logic.
- C - Logging is one of the examples of cross cutting concerns.
- D - All of the above.

**Q 7 - Which are the modules of core container?**

- A - Beans, Core, Context, SpEL
- B - Core, Context, ORM, Web
- C - Core, Context, Aspects, Test
- D - Bean, Core, Context, Test

**Q 8 - Which are the modules of Data Access/ integration layer?**

- A - JDBC, ORM, OXM, JMS, Transactions
- B - JDBC, ORM, OXM, JMS
- C - JDBC, ORM, Web, Beans
- D - JDBC, ORM, OXM, JMS

**Q 9 - Which are the modules of Web layer?**

- A - WebSocket, Servlet, Web, Portlet
- B - WebSocket, Servlet, Web-MVC, Web
- C - HTML, JSP, WEB, Portlet
- D - HTML, Servlet, WEB, Portlet

**Q 10 - Which of the statement is not correct?**

A - Core and beans modules provide the fundamental parts of the framework, including Dependency Injection feature.

B - The SpEL module provides a powerful Expression Language for querying and manipulating an object graph at runtime.

C - Aspects module provides integration with AspectJ.

D - None of the above.

#### Q 11 - Which of the statement is correct?

A - The JDBC module provides a JDBC-abstraction layer that removes the need to do tedious JDBC related coding.

B - The ORM module provides integration layers for popular object-relational mapping APIs, including JPA, JDO, Hibernate, and iBatis.

C - The Java Messaging Service JMS module contains features for producing and consuming messages.

D - All of the above.

#### Q 12 - Which of the statement is correct?

A - The AOP module provides aspect-oriented programming implementation allowing you to define method-interceptors and pointcuts to cleanly decouple code that implements functionality that should be separated.

B - The Aspects module provides integration with AspectJ - Which is again a powerful and mature aspect oriented programming AOP framework.

C - The Instrumentation module provides class instrumentation support and class loader implementations to be used in certain application servers.

D - All of the above.

#### Q 13 - What types of Dependency injection does spring supports?

A - Constructor based, Setter based

B - Constructor based, Setter based, Getter Based

C - Setter based, Getter based, Properties based

D - Constructor based, Setter based, Properties based

#### Q 14 - Which are the IoC containers in Spring?

A - BeanFactory, ApplicationContext

B - BeanFactory, ApplicationContext, locContextFactory

C - BeanFactory, BeanContext, locContextFactory

D - BeanFactory, ApplicationContext, BeanContext

#### Q 15 - Which is the correct implementation class of BeanFactory?

- A - XmlBeanFactory
- B - ClassPathBeanFactory
- C - FileSystemBeanFactory
- D - AdvancedBeanFactory

**Q 16 - Which are the correct implementation classes of ApplicationContext?**

- A - FileSystemXmlApplicationContext, ClassPathXmlApplicationContext, WebXmlApplicationContext
- B - FileSystemApplicationContext, ClassPathApplicationContext, WebApplicationContext
- C - AdvancedApplicationContext, FileApplicationContext
- D - FileSystemApplicationContext, ClassPathApplicationContext

**Q 17 - Which of the following stands true for spring beans?**

- A - Spring beans are managed by the Spring IoC container.
- B - Spring beans are instantiated, assembled, and otherwise managed by a Spring IoC container.
- C - Spring beans are simple POJOs.
- D - All of the above.

**Q 18 - Which is the way to provide configuration metadata to spring?**

- A - XML Based configuration file.
- B - Annotation based configuration.
- C - Java based configuration.
- D - All of the above.

**Q 19 - What is bean scope?**

- A - Bean scope forces Spring to produce a new bean instance as per the scope defined.
- B - Bean scope defines the accessibility of bean in a java class.
- C - Bean scope defines the accessibility of bean in a java package.
- D - Bean scope defines the accessibility of bean in a web application.

**Q 20 - What is singleton scope?**

- A - This scopes the bean definition to a single instance per Spring IoC container.
- B - This scopes the bean definition to a single instance per HTTP Request.
- C - This scopes the bean definition to a single instance per HTTP Session.
- D - This scopes the bean definition to a single instance per HTTP Application/ Global session.

**Q 21 - What is prototype scope?**

- A - This scopes a single bean definition to have any number of object instances.
- B - This scopes the bean definition to a single instance per HTTP Request.
- C - This scopes the bean definition to a single instance per HTTP Session.
- D - This scopes the bean definition to a single instance per HTTP Application/ Global session.

**Q 22 - What is request scope?**

- A - This scopes a bean definition to an HTTP request.
- B - This scopes the bean definition to Spring IoC container.
- C - This scopes the bean definition to HTTP Session.
- D - This scopes the bean definition HTTP Application/ Global session.

**Q 23 - What is session scope?**

- A - This scopes a bean definition to an HTTP session.
- B - This scopes the bean definition to Spring IoC container.
- C - This scopes the bean definition to HTTP request.
- D - This scopes the bean definition to HTTP Application/ Global session.

**Q 24 - What is global-session scope?**

- A - This scopes a bean definition to an HTTP Application/ Global session.
- B - This scopes the bean definition to Spring IoC container.
- C - This scopes the bean definition to HTTP request.
- D - This scopes the bean definition to HTTP Session.

**Q 25 - What is default scope of bean in Spring framework?**

- A - singleton
- B - prototype
- C - request
- D - session

**Q 26 - How can you inject Java Collection in Spring?**

- A - Using list, set, map or props tag.
- B - Using lit, set, map or collection tag.
- C - Using list, set, props or collection tag.

D - Using list, collection, map or props tag.

**Q 27 - What is true about <list> collection configuration elements?**

A - This helps in wiring a list of values, allowing duplicates.

B - This helps in wiring a list of values but without any duplicates.

C - This can be used to inject a collection of name-value pairs where name and value can be of any type.

D - This can be used to inject a collection of name-value pairs where the name and value are both Strings.

**Q 28 - What is true about <set> collection configuration elements?**

A - This helps in wiring a list of values, allowing duplicates.

B - This helps in wiring a list of values but without any duplicates.

C - This can be used to inject a collection of name-value pairs where name and value can be of any type.

D - This can be used to inject a collection of name-value pairs where the name and value are both Strings.

**Q 29 - What is true about <map> collection configuration elements?**

A - This helps in wiring a list of values, allowing duplicates.

B - This helps in wiring a list of values but without any duplicates.

C - This can be used to inject a collection of name-value pairs where name and value can be of any type.

D - This tag is not supported.

**Q 30 - What is true about <props> collection configuration elements?**

A - This helps in wiring a list of values, allowing duplicates.

B - This helps in wiring a list of values but without any duplicates.

C - This can be used to inject a collection of name-value pairs where name and value can be of any type.

D - This can be used to inject a collection of name-value pairs where the name and value are both Strings.

**Q 31 - What is bean autowiring?**

A - Autowiring lets Spring resolve collaborators *otherbeans* for your bean by inspecting the contents of the BeanFactory without using <constructor-arg> and <property> elements.

B - Autowiring injects values in spring beans.

C - Autowiring injects one bean into another.



D - Autowiring helps in wiring a list of values, allowing duplicates.

**Q 32 - Which are the different modes of autowiring?**

A - no, byName, byType, constructor, autodetect

B - no, byName, byType, constructor, autocorrect

C - byName, byContent, constructor, autodetect

D - byName, byContent, setter, autodetect

**Q 33 - What is no mode of autowiring?**

A - Default setting which means no autowiring and you should use explicit bean reference for wiring.

B - Autowiring by property name.

C - Spring first tries to wire using autowire by constructor, if it does not work, Spring tries to autowire by byType.

D - Similar to byType, but type applies to constructor arguments.

**Q 34 - What is byName mode of autowiring?**

A - Default setting which means no autowiring and you should use explicit bean reference for wiring.

B - Autowiring by property name. Spring tries to match and wire its properties with the beans defined by the same names in the configuration file.

C - Spring first tries to wire using autowire by constructor, if it does not work, Spring tries to autowire by byType.

D - Similar to byType, but type applies to constructor arguments.

**Q 35 - What is byType mode of autowiring?**

A - Default setting which means no autowiring and you should use explicit bean reference for wiring.

B - Autowiring by property name. Spring tries to match and wire its properties with the beans defined by the same names in the configuration file.

C - Spring first tries to wire using autowire by constructor, if it does not work, Spring tries to autowire by byType.

D - Autowiring by property type. Spring tries to match and wire a property if its type matches with exactly one of the beans name in configuration file.

**Q 36 - What is constructor mode of autowiring?**

A - Autowiring by property name. Spring tries to match and wire its properties with the beans defined by the same names in the configuration file.

B - Spring first tries to wire using autowire by constructor, if it does not work, Spring tries to autowire by byType.

C - Autowiring by property type. Spring tries to match and wire a property if its type matches with exactly one of the beans name in configuration file.

D - Similar to byType, but type applies to constructor arguments. If there is not exactly one bean of the constructor argument type in the container, a fatal error is raised.

### Q 37 - What is autodetect mode of autowiring?

A - Similar to byType, but type applies to constructor arguments. If there is not exactly one bean of the constructor argument type in the container, a fatal error is raised.

B - Autowiring by property name. Spring tries to match and wire its properties with the beans defined by the same names in the configuration file.

C - Spring first tries to wire using autowire by constructor, if it does not work, Spring tries to autowire by byType.

D - Autowiring by property type. Spring tries to match and wire a property if its type matches with exactly one of the beans name in configuration file.

### Q 38

Can you inject null and empty string values in Spring?

A - Yes

B - No

### Q 39 - How do you turn on annotation wiring?

A - Add <annotation-context:config /> to bean configuration.

B - Add <annotation-config /> to bean configuration.

C - Add <annotation-context-config /> to bean configuration.

D - Add <context:annotation-config/> to bean configuration.

### Q 40 - What does @Required annotation mean?

A - This annotation indicates that bean property must be populated by the user.

B - This annotation indicates that bean property is required while saving the bean data to database.

C - This annotation simply indicates that the affected bean property must be populated at configuration time, through an explicit property value in a bean definition or through autowiring.

D - This annotation indicates that bean property is required while serializing the bean.

### Q 41 - What is true about @Autowired annotation?

A - The @Autowired annotation can be used to autowire bean on the setter method.

B - This annotation provides more fine-grained control over where and how autowiring should be accomplished.

C - The @Autowired annotation can be used to autowire bean on the methods with arbitrary

names and/or multiple arguments.

D - All of above.

**Q 42 - What is ContextRefreshedEvent event?**

A - This event is published when the Servlet Context is either initialized or refreshed.

B - This event is published when the HTTP Request is received.

C - This event is published when the HTTP Response is returned.

D - This event is published when the ApplicationContext is either initialized or refreshed.

**Q 43 - What is ContextStartedEvent event?**

A - This event is published when the Servlet Context is either initialized or refreshed.

B - This event is published when the HTTP Request is received.

C - This event is published when the ApplicationContext is started using the start method on the ConfigurableApplicationContext interface.

D - This event is published when the HTTP Response is returned.

**Q 44 - What is ContextStoppedEvent event?**

A - This event is published when the Servlet Context is either initialized or refreshed.

B - This event is published when the ApplicationContext is stopped using the stop method on the ConfigurableApplicationContext interface.

C - This event is published when the HTTP Request is received.

D - This event is published when the HTTP Response is returned.

**Q 45 - What is ContextClosedEvent event?**

A - This event is published when the Servlet Context is either initialized or refreshed.

B - This event is published when the HTTP Request is received.

C - This event is published when the HTTP Response is returned.

D - This event is published when the ApplicationContext is closed using the close method on the ConfigurableApplicationContext interface.

**Q 46 - What is RequestHandledEvent:event?**

A - This event is published when the Servlet Context is either initialized or refreshed.

B - This event is published when the HTTP Request is received.

C - This event is published when the HTTP session is initialized or refreshed.

D - This event is published when the HTTP Request is serviced.

**Q 47 - What is aspect?**

- A - Aspect is a way to do the dependency injection.
- B - A module which has a set of APIs providing cross-cutting requirements.
- C - Aspect is used to log information of application.
- D - Aspect represents properties of spring based application.

**Q 48 - What is Join point?**

- A - This represents a point in your application which joins two objects.
- B - This represents a point in your object where you join values.
- C - This represents a point in your object where you join injected values.
- D - This represents a point in your application where you can plug-in AOP aspect.

**Q 49 - What is Advice?**

- A - This is the way to instruct object to behave in certain manner.
- B - This is used to inject values in objects.
- C - This is the actual action to be taken either before or after the method execution.
- D - This is not invoked during program execution by Spring AOP framework.

**Q 50 - What is Pointcut?**

- A - This represents a point in your application where you can plug-in AOP aspect.
- B - This is a set of one or more joinpoints where an advice should be executed.
- C - This is used to inject values in objects.
- D - This is invoked during program execution by Spring AOP framework.

## ANSWER SHEET

Question Number	Answer Key
-----------------	------------

- |   |   |
|---|---|
| 1 | A |
| 2 | D |
| 3 | A |
| 4 | A |
| 5 | A |
| 6 | A |
| 7 | A |
| 8 | A |

9	A
10	D
11	D
12	D
13	A
14	A
15	A
16	A
17	D
18	D
19	A
20	A
21	A
22	A
23	A
24	A
25	A
26	A
27	A
28	B
29	C
30	D
31	A
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33	A
34	B
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37	C
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39	D
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44	B
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46	C
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48	D
49	C
50	B

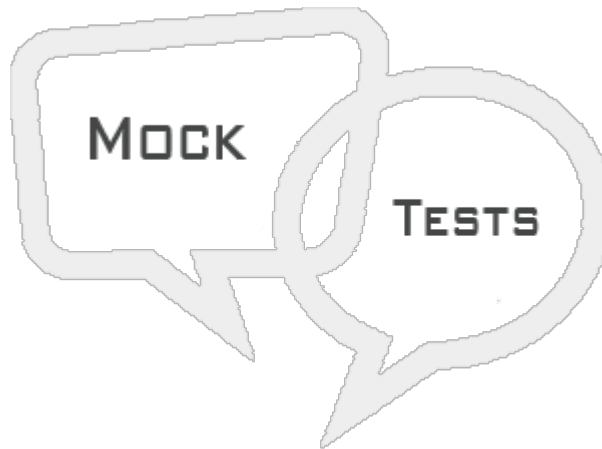
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# SPRING MOCK TEST

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## SPRING MOCK TEST III

### Q 1 - What is Introduction?

- A - An introduction represents a point in your application where you can plug-in AOP aspect.
- B - This is used to inject values in objects.
- C - This is not invoked during program execution by Spring AOP framework.
- D - An introduction allows you to add new methods or attributes to existing classes.

### Q 2 - What is Target object?

- A - A represents a object in your application where you can plug-in AOP aspect.
- B - The object being advised by one or more aspects, this object will always be a proxy object, also referred to as the advised object.
- C - This is used to inject values in objects.
- D - This is not invoked during program execution by Spring AOP framework.

### Q 3 - What is Weaving?

- A - Weaving is the process of injecting values in objects to create an advised object.
- B - Weaving is the process of linking aspects with other application types or objects to create an advised object.
- C - This is used to inject values in objects.
- D - Weaving is used to check object dependencies.

### Q 4 - What are the different points where weaving can be applied?

- A - Compile time, load time

B - Compile time, run time

C - Run time

D - Compile time, load Time, Run time

**Q 5 - What are the types of advice?**

A - then, after, after-returning, after-throwing, around

B - When, after, after-returning, around

C - Where, after, after-returning, after-throwing, around

D - Before, after, after-returning, after-throwing, around

**Q 6 - How before advice works?**

A - Run advice before a class loads.

B - Run advice before a method execution.

C - Run advice before http response is to be returned.

D - Run advice before http request is to be processed.

**Q 7 - How after-returning advice works?**

A - Run advice after a class loads only if class loads successfully.

B - Run advice after a method execution only if method completes successfully.

C - Run advice after http response is returned only if http response is success.

D - Run advice after http request is processed with no exception.

**Q 8 - How after-throwing advice works?**

A - Run advice after a method execution only if method exits by throwing an exception.

B - Run advice after a class loads only if class throws exception during load time.

C - Run advice after http response is returned with error status.

D - Run advice after http request is processed and an exception occurred.

**Q 9 - How around advice works?**

A - Run advice before and after the advised method is invoked.

B - Run advice before and after a class is loaded.

C - Run advice before and after http response is returned.

D - Run advice before and after http request is processed.



**Q 10 - Which of the following aspect implementation spring supports?**

A - XML Schema based aspect implementation

B - @AspectJ based aspect implementation

C - Both of above.

D - None of above.

**Q 11 - What are the types of the transaction management Spring supports?**

A - Programmatic transaction management

B - Declarative transaction management

C - Both of above.

D - None of above.

**Q 12 - What is Spring MVC framework?**

A - Spring MVC framework is Model-Value-Class architecture and used to bind model data with values.

B - The Spring web MVC framework provides model-view-controller architecture and ready components that can be used to develop flexible and loosely coupled web applications.

C - Spring MVC framework is used for Transaction management for Web Applications.

D - Spring MVC framework is used for AOP for Web Applications.

**Q 13 - What is @Controller annotation?**

A - The @Controller annotation indicates that a particular class serves the role of a controller.

B - The @Controller annotation indicates how to control the transaction management.

C - The @Controller annotation indicates how to control the dependency injection.

D - The @Controller annotation indicates how to control the aspect programming.

**Q 14 - What are the ways to access Hibernate by using Spring?**

A - Inversion of Control with a Hibernate Template and Callback.

B - Extending HibernateDAOSupport and Applying an AOP Interceptor node.

C - Both of above.

D - None of above.

**Q 15 - Which ORM Spring supports ?**

A - Hibernate

B - iBatis

C - JPA

D - All of above.

E - None of above.

**Q 16 - Which of the following database is not supported using jdbcTemplate?**

A - MySql

B - PostgresSql

C - NoSql

D - Oracle

**Q 17 - How to get object of a service in spring framework?**

A - Using new keyword

B - Using dependency injection

**Q 18 - Which of the following is part of Data Access layer in Spring framework?**

A - Beans

B - Aspects

C - JMS

D - Context

**Q 19 - How to use ref keyword in beans.**

xml?

A - Using setter method only.

B - Using constructor argument only.

C - Using setter method and constructor argument both.

D - None of the above.

**Q 20 - Core container has AOP as one of its module.**

A - True

B - False

**Q 21 - SpEL is part of core container.**

A - False

B - True

**Q 22 - Which class acts as IoC Container?**

A - ServletContext

B - DispatcherServlet

**C - ApplicationContext**

D - None of the above

**Q 23 - What stands true for spring framework?**

**A - Spring framework is a light weight framework.**

B - Spring framework is a heavy weight framework.

**Q 24 - Expression Language/ SpEL was introduced in which version of spring framework.**

A - 1.0

B - 2.0

**C - 3.0**

D - 4.0

**Q 25 - Can we integrate Struts with Spring.**

**A - Yes**

B - No

**Q 26 - By default a bean is lazily loaded.**

A - True

**B - False**

**Q 27 - By default a bean is eagerly loaded.**

A - False

**B - True**

**Q 28 - If a bean is scoped to HTTP request, scope is**

A - session

B - global-session

C - prototype

**D - request**

**Q 29 - If a bean is created once per loc Container, scope is**

**A - singleton**

B - global-session

C - prototype

D - request

**Q 30 - Thread scoped bean is introduced in which version of spring framework.**

A - 1.0

B - 2.0

**C - 3.0**

D - 4.0

**Q 31 - If a bean can be created any number of times, scope is**

A - session

B - global-session

**C - prototype**

D - request

**Q 32 - What is the scope of stateless bean?**

A - global-session

**B - singleton**

C - prototype

D - request

**Q 33 - What is the scope of stateful bean?**

A - session

B - global-session

**C - prototype**

D - request

**Q 34 - If a bean is scoped to HTTP session, scope is**

A - global-session

**B - session**

C - prototype

D - request

**Q 35 - How to handle shut down of IoC container?**

- A - Using shutdownHook
- B - Using shutdownHandler
- C - Using registerHook
- D - Using registerShutdownHook

**Q 36 - How bean life cycle can be controlled?**

- A - Using init only
- B - Using InitializingBean class only
- C - Using DisposableBean class only
- D - Using All of above

**Q 37 - What is the scope of bean in portlet context?**

- A - session
- B - global-session
- C - prototype
- D - request

**Q 38 - How after advice works?**

- A - Run advice after a method execution regardless of its outcome.
- B - Run advice after a class loads.
- C - Run advice after http response is returned.
- D - Run advice after http request is processed.

**Q 39 - Which class is used to map a database row to a java object in spring?**

- A - ResultSet
- B - RowMapper
- C - RowSetMapper
- D - ResultSetMapper

**Q 40**

- A bean must have id attribute in beans configuration file.
- A - True

B - False

**Q 41 - Which of the following class can be used to execute Sql queries in spring?**

B - JDBCHelper

A - JdbcTemplate

C - DBHelper

D - DBTemplate

**Q 42 - Which of the following class can be used to call Stored Procedures in spring?**

A - SPHelper

B - JdbcTemplateCall

C - JdbcTemplate

D - SimpleJdbcCall

**Q 43 - What is a DispatcherServlet?**

A - DispatcherServlet is used for transaction management.

B - DispatcherServlet is used for AOP.

C - DispatcherServlet handles all the HTTP requests and responses.

D - DispatcherServlet is used for Dependency injection.

**Q 44 - What is ACID in transactional management?**

A - Accurate, Controlled, Isolation, Durability

B - Atomicity, Consistency, Independent, Done

C - Atomicity, Consistency, Isolation, Durability

D - Accurate, Controlled, Independent, Done

**Q 45 - Where do you define DispatcherServlet?**

A - In Beans configuration file.

B - Web.xml file

C - Meta-inf/dispatcher.xml

D - Web-inf/ dispatcher.xml

**Q 46 - What is true about BeanPostProcessor?**

A - It is a concrete class.

B - It is an interface.

C - It is an abstract class.

D - None of the above.

**Q 47 - What BeanPostProcessor does?**

A - It processes beans once a bean is initialized.

B - It defines callback methods that you can implement to provide your own instantiation logic, dependency-resolution logic etc.

C - It processes beans once a bean is loaded.

D - It processes beans once a bean exits.

**Q 48 - Can be bean be configured to have an inner bean?**

A - True

B - False

**Q 49 - Can we inject value and ref both together in a bean?**

A - True

B - False

**Q 50 - Following class can be extended to create custom event in spring.**

A - SpringEvent

B - Event

C - ApplicationEvent

D - None of above

## ANSWER SHEET

Question Number	Answer Key
-----------------	------------

1	D
2	B
3	B
4	D
5	D
6	B
7	B
8	A

9	A
10	C
11	C
12	B
13	A
14	C
15	D
16	C
17	B
18	C
19	C
20	B
21	B
22	C
23	A
24	C
25	A
26	B
27	B
28	D
29	A
30	C
31	C
32	B
33	C
34	B
35	D
36	D
37	B
38	A
39	B
40	B
41	A
42	D
43	C



44	C
45	B
46	B
47	B
48	A
49	A
50	C

Loading [MathJax]/jax/output/HTML-CSS/jax.js

1.The central artifact in spring javaConfig is the @Configuration-annotated class.State true or False.

ans:true

2.What are the modules of spring web flow?

a.Spring-faces -----

b.Spring-bundling

c.Spring-container -----

d.Spring-webflow -----

3.XML mapping file offers which of the following?

4.In spring MVC each tag provides support to the set of attributes of its corresponding HTML tag counterpart making the tags familiar & intuitive to use

State true or False. true

5.Which of the following are mandatory rules to create validation for a normal employee table?

a.The "empNum" cant be empty

b."Name" cant be empty

c.The "empNum" cant be less than 1

d.All of the option -----

6.Which of the following allows as to add a new method or attributes to existing classes?

a.Introduction -----

b.Proxy

c.Weaving

d.Auto call

7.Given the following Spring configuration file, what is the correct answer:

```
<bean class="com.spring.service.MyServiceImpl">
```

```
<property name="repository" ref="jpaDao"/>
```

```
</bean>
```

```
<bean class="com.spring.repository.JpaDao"/>
```

- a. The first declared bean MyServiceImpl is missing an id must be named myService
- b. The second declared bean JpaDao is missing an id must be named jpaDao -----
- c. Answers 1 and 2 are both rights
- d. Answers 1 and 2 are both wrong

8.Which of the following are the best practices for writing spring XML configuration?

- a.Rarely use classpath
- b.Mentioning version numbers in schema reference
- c.Using consistent naming conventions-----
- d.Reuse bean definitions as much as possible-----

best practices:

- 1) Add a header comment to each configuration file
- 2) Use consistent naming conventions
- 3) No version numbers in schema references
- 4) Prefer setter injection over constructor injection
- 5) Prefer type over index for constructor argument matching
- 6) Use shortcut forms over expanded forms
- 7) Reuse bean definitions as much as possible
- 8) Always use ids as bean identifiers
- 9) Try to avoid autowiring
- 10) Always use classpath prefix

- 11) Always externalize properties
- 12) Use dependency-check at the development phase
- 13) Do not abuse/overuse dependency injection

9.Spring MVC provides better way to separate which of the following?

- a.Presentation
- b.Tools
- c.Data Access
- d.Business Logic -----

10.We can use index and type attribute together

State true or False. -true

11.which of the following is Hibernate?

- a.Lightweight
- b.Open Source
- c.ORM
- d.All of the listed-----

12.Which of the following options about Auto Wiring in spring are correct?

- 1.Auto-wiring in spring framework can be performed by configuring xml and auto-wiring with annotation @Autowired. ----
- 2.Auto-wiring beans with xml configuration:In spring framework, you can wire automatically with auto-wiring feature.
- 3.To enable auto-wiring just define the "autowire" attribute in <bean> tag. -----

13.Which of the following parsers in xml based on expression and its used extensively in conjunction with XSLT?

- a.Xpath parser -----

- b.SAX parser
- c.STAX Parser
- d.JDOM Parser

14.Length attribute of @column annotation permits the size of the column used to map a value particularly for a string value.

State true or False. -----true

15.When we work with an object oriented system there's a mismatch between the object modal and the relational database. State true or False.

-----true

16.Which of the following is true about JDBC?

- a.JDBC APIs enables java programs to execute SQL statements and interact with any SQL Complaint database
- b.JDBC stands for Java Database Connectivity
- c.it provides set of java API for accessing the relational databases from java program
- d.All the listed option -----

17.- What is session scope?

- A - This scopes a bean definition to an HTTP session. -----
- B - This scopes the bean definition to Spring IoC container.
- C - This scopes the bean definition to HTTP request.
- D - This scopes the bean definition to HTTP Application/ Global session

18.Which of the listed statement are correct for spring Bean scope:Prototype?

- 1.Spring container creates new instance of bean for each and every request for that bean-----
- 2.Prototype scoped bean is served by creating new instance of bean for each and every bean dependency-----
- 3.After instatiating bean and submitting it to client spring container will maitain the record(not maintain)

4. Prototype scope is spring standard scope and can be used in standalone as well as web application of spring.-----

19. ServletWrappingController-Wraps an existing servlet which is managed completely by the spring environment. State true or False.

-----true

20. Hibernate session is the main runtime interface between a java application and Hibernate. State true or False.

-----true

23. Which of the following are correct in sql queries in hibernate.

1. sql queries may contain named and positional parameters, just like hibernate queries-----

2. You may express a query in sql using createSQLQuery()-----

3. Hibernate takes care of the mapping from result sets to objects-----

4. You may call session.connection() and use JDBC Connection at any time

24. Which is the query language that embodies a very powerful and flexible mechanism to query, store, update and retrieve

objects from a database?

a. PLSQL

b. RDBMS

c. SQL

d. HQL-----

25. What is spring MVC framework?

a. spring MVC framework is used for Transaction management for web application-----

b. spring MVC framework is Model-view-class architecture and used to bind model data

c. spring MVC framework is used for AOP for web application -----

d. spring web MVC framework provides model-view-controller architecture and ready components that can be used to develop flexible and loosely coupled web applications

-----

26. Which of the listed options are True for bean configuration inheritance?

- 1. In spring the inheritance is supported in bean to share common values properties or configurations. ---
- 2. A child bean or inherited bean can inherit its parent bean configurations, properties & some attributes --
- 3. the parent bean allow to override the inherited values. -----

27. XsltViewResolver supports XsltView by resolving the view name of which of the following options?

- a. View name of the URL of the report file
- b. URL of the XSLT
- c. VelocityView and its subclasses
- d. All of the option

28. [xml]

```
<id name="depId" type="string">  
<column name="columnId" length="30"/>  
<generator/>  
</id>
```

[xml]

The above is an example of creating which key?

- a. Primary key -----
- b. Secondary key
- c. Unique key
- d.

29. When you need to upload a large number of records into your database using Hibernate, you can use batch processing. State true or False.

---true

30. Different types of run advice "before" and "after" the advised method is invoked. Which of the following is the correct option with respect to advice?

- a.After returning
- b.None
- c.After throwing
- d.around ---

31.Implementation of viewResolver accets a configuration file written in XML with the same DTD as spring XML bean factories.State true or False.

-----true

32.Choose the odd one out respect to annotations from the following

- a.@requestmapping
- b.@controller
- c.@responsevalid-----
- d.@Pathvalid-----

33.For a fast Development, the depenndency injection feature of spring Framework & support to various Frameworks makes the easy development of javaEE application.state true or False.---

--true

34.Testing an application written with Spring is complex because environment-dependent code is moved into this framework.state true or False.--false (simple)

35.The application is designed around an object model.Sql code is generated at build time & the assosiations between obj are supported by the persistence mechanism, and queries are specified using an obj-oriented expression language.This is best suited for medium-sized applications with some complex transactions.Used when mapping exceeds 25 differentdatabase products at a time. which of the following is this called as?

- a.Object mapping
- b.Application object mapping
- c.Medium object mapping-----



d.Expression object mapping

36.Which of the following is not the steps for creating web MVC?

- a.Provide exit controller in the web
- b.Create a controller class
- c.start server & deploy the project
- d.Define the bean in the xml file

37.Maven is a project management &comprehension tool.

state true or False.

Ans:True

38.Which of the following elements is used to represent one-to-one relationship in hibernate?

- a.<many-to-one>
- b.<ManyTOOne>
- c.<many-one>
- d.none

Ans:<many-to-one>

39.In hibernate implement cache for a query ,if the result sets can integrate closely,which level of the cache can be implemented?

- a.first level cache
- b.second level cache-----
- c.third level cache
- d.Fourth level cache

40.Spring MVC provides predefined templates for JDBC, Hibernate and JPA.state true or False.-----true

Ans:True

41. In Spring MVC which of the following is the front controller class that initializes the context based on the spring beans configuration?

- a. org.springframework.web.servlet.DispatcherServlet-----
- b. org.springframework.web.context.DispatcherServlet
- c. org.springframework.web.servlet
- d. org.springframework.web.context.ApplicationContext

42. Which of the following is NOT the type of mapping?

- a. Instance mapping-----
- b. Component mapping
- c. Association mapping
- d. Class mapping

43. Which of the following are modules of Web layer?

- A - WebSocket, Servlet, Web, Portlet-----
- B - WebSocket, Servlet, Web-MVC, Web
- C - HTML, JSP, WEB, Portlet
- D - HTML, Servlet, WEB, Portlet

44. Which of the following statements are correct?

- a. Bean Factory and ApplicationContext are basic container only
- b. Bean Factory is basic container and ApplicationContext is advanced container-----
- c. Bean Factory and ApplicationContext are advanced container
- d. Bean Factory is advanced container and ApplicationContext is basic container

45. In spring bean configuration bean attribute called 'scope' defines what kind of object has to be created and returned. What returns a new bean instance each time when required?

- a. Prototype----
- b. Session

c.Singleton

d.Global session

46.To validate the form fields you need to have a separate UserValidator class

that implements the validator interface,override the validate() method perform all the validations.state true or False.

-----true

47.The application context implements which of the following interface that is used to obtain localized messages,with the actual implementation being pluggable?

1.messageSource -----

2.RequestMapping

3.both

4.neither

48.Which of the following is an available aggregate function in HQL?

a.Aggregate(property name)

b.Count(property name or \*)-----

c.max(property name)-----

d.avg(property name)-----

49.What statement is not correct in live environment? Select a unique answer.

1. Constructor and properties autowiring in the same bean are not compatible

2. A bean should have a default or a no-args constructor

3. The <constructor-arg> tag could take type, name and index to reduce ambiguity

4. None of the above

5. All of the above-----

50.- What is ContextClosedEvent event?

A - This event is published when the Servlet Context is either initialized or refreshed.

- B - This event is published when the HTTP Request is received.
- C - This event is published when the HTTP Response is returned.
- D - This event is published when the ApplicationContext is closed using the close method on the ConfigurableApplicationContext interface. -----

51. Which of the following explains about addclass function in the listed options?

- a. this function translate a java class name into file name
- b. this translated file name is then loaded as an input stream from the java class loader
- c. this addclass function is important if you want efficient usage of classes in your code-----

52. Spring MVC provides a JSP tag library(Spring form) for making it easier to bind form elements to model data.state true or False.

Ans: True

53. Which of the following is correct assertion about spring?

- a. Spring enables developers to develop enterprise-class applications using POJOs.
- b. Spring is organized in a modular fashion.
- c. Testing an application written with spring is simple because environment-dependent code is moved into this framework.
- d. All of above.-----

54. Which of the following statement is INCORRECT by extending ViewResolver and ChainingViewResolver?

- a. programmers can have custom view resolvers
- b. There are lot of view resolvers available in Spring framework
- c. Spring MVC view resolvers help the Dispatcher Servlet in identifying the views which has to be rendered in response for a request.
- d. none-----

55.What are the benefits of Spring Framework's transaction management?

- a.It Provides a consistent programming model across different transaction APIs such as JTA, JDBC, Hibernate, JPA, and JDO.
- b.It Supports declarative transaction management.
- c.It Provides a simpler API for programmatic transaction management than a number of complex transaction APIs such as JTA.
- d.All the listed-----

56.Given the following configuration class, what are correct affirmations? Select one or more answers.

```
public class ApplicationConfig {  
    private DataSource dataSource;  
    @Autowired  
    public ApplicationConfig(DataSource dataSource) {  
        this.dataSource = dataSource;  
    }  
    @Bean(name="clientRepository")  
    ClientRepository jpaClientRepository() {  
        return new JpaClientRepository();  
    }  
}
```

- 1. @Configuration annotation is missing-----
- 2. Default or no-arg constructor is missing-----
- 3. @Bean name is ambiguous
- 4. @Bean scope is prototype

57.What is true about <list> collection configuration elements?

A.This helps in wiring a list of values, allowing duplicates.-----<list>

B.This helps in wiring a list of values but without any duplicates.-----<set>

C.This can be used to inject a collection of name-value pairs where name and value can be of any type.-----<map>

D.This can be used to inject a collection of name-value pairs where the name and value are both Strings.-----<props>

Ans:This helps in wiring a list of values, allowing duplicates.

58.Which are the correct implementation classes of ApplicationContext?

A.FileSystemXmlApplicationContext,ClassPathXmlApplicationContext,

WebXmlApplicationContext-----

B.FileSystemApplicationContext, ClassPathApplicationContext, WebApplicationContext

C.AdvancedApplicationContext, FileApplicationContext

D.FileSystemApplicationContext, ClassPathApplicationContext

59.It is difficult to inject the dependency by constructor. state true or False.---true

60.The Model-View-Controller(MVC) is an architectural pattern that does not separate an application into three main logical components: the model,the view and the controller.

state true or False.-----false

1)Given the following configuration class, what are correct affirmations? Select one or more answers.

```
public class ApplicationConfig {  
    private DataSource dataSource;
```

```

@Autowired
public ApplicationConfig(DataSource dataSource) {
    this.dataSource = dataSource;
}

@Bean(name="clientRepository")
ClientRepository jpaClientRepository() {
    return new JpaClientRepository();
}
}

```

1. @Configuration annotation is missing-----ANS
2. Default or no-arg constructor is missing-----ANS
3. @Bean name is ambiguous
4. @Bean scope is prototype

-----

```

2)<id name="deptId" type="string">
<column name="columnid" length="30"/>
<generators/>
</id>
[/xml]

```

The above is an example of creating which key?

Select One:

- a.DB key
- b.Unique key
- c.Secondary key
- d.Primary key-----ANS

-----

3)ApplicationContext implements which of the following interface that is used to obtain localized messages, with the actual implementation being pluggable

I. MessageSource

II. RequestMapping

Select One:

a. only I-----ANS

b. only II

c. Neither I or II

d. Both I and II

-----

4).Which of the following is a many to one relationship

a) many-to-one

b) <many-to-one>-----ANS

c) None of the list

d) <Manyone>

-----

5)What of the following is not correct in live environment?

select one

a. Constuctor and properties autowiring in the same bean are not compatible

b. A bean should have a default or a no-args constructor

c. The <constructor-arg> tag could take type, name and index to reduce ambiguity

d. All of the above-----ANS



---

6) Which of the following is not available in HQL

select one

a) Select

b) Where

c) Sub-----Ans

d) Having

---

7) Maven is a project management and comprehension tool

select one

True-----Ans

False

---

8) How many layers are there in Hibernate architecture

select one

a) 3

b) 4-----Ans

c) 5

d) 2

---

9) Beans, Core, Context, SpEL are the components in Core container

select one

True-----Ans

False

---

10) PROPAGATION\_REQUIRES\_NEW

Ans: Creates a new transaction, suspending the current transaction if one exists.

---

11)Element which can be used to inject a collection of name-value pairs where the name and the value can be of any type.

select one

a)<list>

b)<set>

c)<map>-----ANS

d)<props>

---

12)Element which can be used to inject a collection of name-value pairs where the name and the value are both Strings type.

select one

a)<list>

b)<set>

c)<map>

d)<props>-----ANS

---

13)which type of annotation applies to bean property setter methods

select one

a)@Requires

b)@Resource

c)@Required-----ANS

d)@Requiring

---

14)ORM stands for Object-Relational Mapping (ORM) is a programming technique for converting data between relational databases.

select one

True-----Ans

False

---

15)Which tool helps to generate the mapping document Though many Hibernate users choose to write the XML by hand

select one

a)oldgen

b)younggen

c)Middlegen-----ANS

d) Mediumgen

---

16)Java based configuration option disables you to write most of your Spring configuration without XML but with the help of few Java-based annotations

select one

True

False-----Ans

---

17) What types of views supported by spring MVC for different presentation technologies

select one or more

- a)JSP
- b)HTML
- c)velocity templates
- d)

Ans: select all

---

18)Spring is a heavy weight framework

select one

True

False-----Ans

---

19)A very powerful and high performance querying language used to Query, retrieve, store data in DB is

select one

a)PLSQL

b)HQL-----ANS

c)SQL

d)RDBMS

---

20)which of the following options about Auto wiring in spring are correct?

I. The Auto wiring in spring framework can be performed by configuring in xml and spring Auto-Wiring with Annotation @Autowired

II. Auto-wiring beans with xml configuration: In Spring framework, you can wire beans automatically with auto wiring feature

III. To enable auto-wiring just define the "autowire" attribute in <bean> tag.

Select One:

a.I, II, and III-----ANS

b.I and III

c.I and II

d.II and III

---

1) In Spring AOP, the process of linking aspect with other application types or objects to create an advice object is called \_\_\_\_\_.

Weaving(ans)

---

---

2) <list> tag is used to wire a list of values, allowing duplicates.

---

---

3) BeanFactory, ApplicationContext classes acts as IoC containers in Spring.

---

---

4) Can you inject null and empty string values in Spring? ans: yes

-----  
-----

5) AOP stands for Aspect Oriented Programming.

-----  
-----

6) SpEL is NOT part of core container. ANS: false (it is part of core container)

-----  
-----

7)Following class can be extended to create custom event in spring. ans: ApplicationEvent

-----  
-----

8)Which is the way to provide configuration metadata to spring?

A - XML Based configuration file.

B - Annotation based configuration.

C - Java based configuration.

d - all-----ANS

-----  
-----  
  
9) Which are the modules of Web layer? ans: WebSocket, Servlet, portlet, web

-----  
-----  
  
10) how many instances can be created for a global session : one

-----  
-----  
  
11) what displays the data with help of model? Ans: View

-----  
-----  
  
12) read the below statements and ans according to questions

I. Spring enables developers to develop enterprise-class applications using POJOs.

II. Spring is organized in a modular fashion.

III. Testing an application written with Spring is simple

IV. All of the list-----ANS

-----  
-----

13) How after advice works?

A - Run advice after a method execution regardless of its outcome.-----ANS

B - Run advice after a class loads.

C - Run advice after http response is returned.

D - Run advice after http request is processed.

-----  
-----

14)which can be used to inject a collection of name-value pairs where name and value can be of any type. ANS-----MAP

-----  
-----

15)What is ContextStartedEvent event?

A - This event is published when the Servlet Context is either initialized or refreshed.

B - This event is published when the HTTP Request is received.



C - This event is published when the ApplicationContext is started using the start() method on the ConfigurableApplicationContext interface.--ANS

D - This event is published when the HTTP Response is returned.

-----  
-----

16)which of the following not available in HQL?

select

where

having

sub-----ans

-----  
-----

17)which is a aggregate function in HQL(multiple choice)? ANS-sum, avg and count (dont select aggregate)

-----  
-----

18)Which of the following database is not supported by Hibernate?

A - DB2/NT

B - MySQL

C - FoundationDB----ANS

D - PostgreSQL

---

---

19) Which of the following is true about Hibernate?

A - Hibernate is an Object-Relational Mapping(ORM) solution for JAVA.---ans

B - Hibernate is an Object-Relational Mapping(ORM) solution for .NET

C - Both of the above.

D - None of the above.

---

---

20) What is the difference between save() and persist() methods of session object?

A - There is no difference.

B - save saves the object and returns status whereas persist stores status in different variable.

C - save saves the object and returns the id of the instance whereas persist do not return anything after saving the instance.-----ANS

D - None of the above.

-----  
-----  
  
21)what is required to write a basic spring program? ANS----jdk,ide,maven,all the above

-----  
-----  
  
22)

BeanFactory, ApplicationContext classes acts as IoC containers in Spring.

-----  
-----  
  
23)

JDBC, ORM, OXM, JMS, Transactions are the modules of Data Access/ Integration layer.-----TRUE

-----  
-----  
  
24)ContextStartedEvent event is published when the ApplicationContext is started using the start()  
method on the ConfigurableApplicationContext interface.-----TRUE

-----  
-----  
  
25)Spring framework is a light weight framework.-----TRUE

26) singleton is the default scope of any spring bean.-----TRUE

---

27)

Analyze the below code snippet:

```
<bean class="com.spring.service.MyServiceImpl">
<property name="repository" ref="jpaDao"/>
</bean>
<bean class="com.spring.repository.JpaDao"/>
```

Which of the following statements is valid?

- I. The "id" attribute must be declared for the bean "MyServiceImpl" because it is mandatory attribute.
- II. In the second bean of type "com.spring.repository.JpaDao" the "id" attribute must be specified with name "jpaDao".

Select One

- a Both I and II are correct
  - b II only-----ANS
  - c I only
  - d Both I and II are incorrect
- 

28) Which of the following parsers in XML based on expression and its used extensively in conjugation with xstl ?

Select One:

- a)JDOM parser
- b)SAX parser
- c) STAX parser
- d) Xpath parser0-----ANS

-----  
-----

29) what is true about BeanFactory, ApplicationContext?

ANS-BeanFactory is basic and ApplicationContext is advanced

-----  
-----

30)What are the common implementations of the Application Context ?

ANS-  
FileSystemXmlApplicationContext,ClasspathXmlApplicationContext,WebxmlApplicationContext(answers  
are confusing- xml should be common in those three)

-----  
-----

31) org.springframework.web.servlet.DispatcherServlet is the configuration in xml file for  
dispatcherServlet.

-----  
-----

32) The central artefact in spring javConfig is the @Configuratuion annotated class?

State True or False

a). TRUE-----ANS

b). FALSE

-----  
-----

33) maven is a project management and comprehension tool-----True

-----  
-----

34)session----This scopes a bean definition to an HTTP session only.

-----  
-----

35) What of the following is not correct in live environment?

select one

a. Constuctor and properties autowiring in the same bean are not compatible

b. A bean should have a default or a no-args constructor

c. The <constructor-arg> tag could take type, name and index to reduce ambiguity

d. All of the above-----ans

-----  
-----

36) Given the following configuration class, what are correct affirmations? Select one or more answers.

```
public class ApplicationConfig {  
    private DataSource dataSource;  
  
    @Autowired  
    public ApplicationConfig(DataSource dataSource) {  
        this.dataSource = dataSource;  
    }  
  
    @Bean(name="clientRepository")  
    ClientRepository jpaClientRepository() {  
        return new JpaClientRepository();  
    }  
}
```

1. @Configuration annotation is missing-----ANS
2. Default or no-arg constructor is missing-----ANS
3. @Bean name is ambiguous
4. @Bean scope is prototype

-----  
-----

37) Question on servlet wrapping ---true

-----  
-----

38)[xml]

```
<id name="deptId" type="string">  
<column name="columnid" length="30"/>  
</generatoers/>
```

<id/>

[/xml]

The above is an example of creating which key?

Select One:

- a.DB key
- b.Unique key
- c.Secondary key
- d.Primary key-----ANS

-----  
-----

39)validations for normal employee class

- I.Name cant be empty
- I.Id cant be empty
- III.Id cant be less than 1
- iV.all the above-----ANS

-----  
-----

40)Not a type of mapping

- I. instance mapping---ans
- II. association mapping
- III. Class mapping



IV.

-----  
-----

41)ContextClosedEvent-----is published when the ApplicationContext is closed using the close() method on the ConfigurableApplicationContext interface

-----  
-----

42)Around advice-----Run advice before and after the advised method is invoked.

-----  
-----

43)HQL- easily stores, update and retrieve from the database

State True or False

a). TRUE-----ANS

b). FALSE

-----  
-----

44)Hibernate is lightweight,opensource and ORM (Multiple choice)

ANS-----all the above

-----  
-----

45)Hibernate session is the main runtime interface between java applications and hibernate.

State True or False

a). TRUE-----ANS

b). FALSE

-----  
-----

46)When we work with an object oriented system, there is mismatch between the object model and the relational database.

State True or False

a). TRUE-----ANS

b). FALSE

-----  
-----

47)spring mvc is a model-view-controller

State True or False

a). TRUE-----ANS

b). FALSE

-----  
-----

48)form fields are validated using user defined validations class by implementing validation interface

State True or False

a). TRUE-----TRUE

b). FALSE

-----  
-----

49) spring does not separate three modules like presentation layer, business layer and data access layer  
State True or False

a). TRUE

b). FALSE-----ANS

-----  
-----

50) pick odd one out in the following annotations

I. @PathVariable ----- ans

II. @ResponseBody ---ans

III. @Controller

IV. @RequestMapping

-----  
-----

51) length returns number of rows in a column for only string type

State True or False

a). TRUE---ans

b). FALSE

-----  
-----

52)which level cache implements a cache for query resultsets

- a.Third level cache---ans
- b.Second level cache
- c.First level cache
- d. Fourth level cache

-----  
-----

53)read about prototype and singleton scopes.

-----  
-----

54)form tags are available in springs is more compatible wth html tags for better development

State True or False

- a). TRUE-----ANS
- b). FALSE

-----  
-----

55) Which of the following are CORRECT in SQL queries in Hibernate.

- I. SQL queries may contain named and positioned parameters, just like Hibernate queries
- II. You may express a query in SQL, using createSQLQuery()
- III. Hibernate take care of the mapping from result sets to objects

IV. You may call session.connection() and use the JDBC Connection at any time.

select one

- a. I, II, and III---ans
- b. I, II, and IV
- c. I, III, and IV
- d. I, II, III, and IV

-----  
-----

56)what are the modules in the spring-webflow(

bundling not an ans

spring-webflow

spring-

spring-

-----  
-----

57)what is the function of clean maven lifecycle command

ANS-cleans artefacts in the earlier build

-----  
-----

58)which of the following is not the best practice?

I.Exit controller has to define in web.xml

II.bean definition

III.open the server and deploy the project----ans|not sure

IV.@controller usage

-----  
-----

59.Constructor injection is didfficult to inject

State True or False

a). TRUE--ans

b). FALSE

-----  
-----

60.index and type can be used in the constrictor-arg at the same time?

State True or False

a). TRUE---ans

b). FALSE

-----  
-----

61.Which of the following is a one to one relationship

a) <many-to-many>

b) <many-to-one>-----ans in tutorial point

c) None of the list

d) <one-to-many>

-----  
-----

62) the same XSD of BeanFactory can be used for View resolver interface?

State True or False

a). TRUE-----ANS

b). FALSE

-----  
-----

63) Which of the following is correct assertion about spring?

A - Spring enables developers to develop enterprise-class applications using POJOs.

B - Spring is organized in a modular fashion.

C - Testing an application written with spring is simple because environment-dependent code is moved into this framework.

D - All of above.-----ANS

-----  
-----

64)

What is ContextStoppedEvent event?

A - This event is published when the Servlet Context is either initialized or refreshed.

B - This event is published when the ApplicationContext is stopped using the stop() method on the ConfigurableApplicationContext interface.-----ANS

C - This event is published when the HTTP Request is received.

D - This event is published when the HTTP Response is returned.

-----  
-----

65)XsltViewResolver-supports XsltView by resolving the view name of which of the following options

a) all of the listed options

b)VelocityView and its subclasses

c)URI of xslt-----ANS

d)view name of the URL of the report file.

-----  
-----

66) Spring MVC provides predefined templates for JDBC, Hibernate and JPA.

State True or False

a). TRUE-----ANS

b). FALSE



---

---

67) ApplicationContext implements which of the following interface that is used to obtain localized messages, with the actual implementation being pluggable

I. MessageSource

II. RequestMapping

Select One:

a. only I-----ANS

b. only II

c. Neither I or II

d. Both I and II

---

---

68) Which of the following are the best practices for writing spring XML Configurations?

select one or more

a. Using consistent naming conventions-----ANS

b. Rarely use classpath

c. Mentioning version numbers in schema references

d. reuse bean definitions as much as possible-----ANS

---

---

69) To validate the form fields you need to have a separate UserValidator class that implements the validator interface, Override the validate() method perform all the validations.

State True or False

a). TRUE-----ANS

b). FALSE

-----  
-----

70) which of the listed options are TRUE for Bean configuration inheritance?

I. In spring, Inheritance is supported in bean configuration to share common values, properties or configurations

II. A child bean or inherited bean can inherit its parent bean configurations, properties and some attributes

III. The parent bean allow to override the inherited values

Select One:

a.I, II, and III-----ANS

b.I and II

c.II and III

d.I and III

-----  
-----

71) which of the following options about Auto wiring in spring are correct?

I. The Auto wiring in spring framework can be performed by configuring in xml and spring Auto-Wiring with Annotation @Autowired

II. Auto-wiring beans with xml configuration: In Spring framework, you can wire beans automatically with auto wiring feature

III. To enable auto-wiring just define the "autowire" attribute in <bean> tag.

Select One:

a.I, II, and III-----ANS

b.I and III

c.I and II

d.II and III

-----  
-----

72) XML Mapping file offers which of the following?

Select One:

a.Readable Metadata

b.Surrogate key generation strategy

c.Coleccion metadata

d.all the listed options-----ANS

e.Column/Table Mapping

-----  
-----

73) Which of the following explains about addClass function in the listed options

I. This function translates a Java class name into file name

II. This translated file name is then loaded as an input stream from the java class loader

III. This addClass function is important if you want efficient usage of classes in your code

Select One

a. I, II, and III--ans

b. I and III

c. I and II

d. II and III

-----  
-----

74) The application is designed around an object model. The SQL code is generated at build time and the associations between objects are supported by the persistent mechanism, and queries are specified using an object oriented expression language. This best suited for medium-sized applications with some complex transactions. Used when the mapping exceeds 25 different database products at a time.

Which of the following is this called as?

Select One:

a. Application Object Mapping

b. Expression object mapping

c. Medium Object Mapping-----ANS

d. Object Mapping

-----  
-----

-----  
-----

Expected Questions:

1). In Spring AOP, 4 type of advices are supported :

before-----Run advice before the method execution.

after-----Run advice after the method execution, regardless of its outcome.

after-returning advice-----Run advice after the method execution, only if the method completes successfully.

after-throwing advice-----Run advice after the method execution, only if the method exits by throwing an exception.

around-----Run advice before and after the advised method is invoked.

---

2). ResourceLoader support: Spring's Resource interface us a flexible generic abstraction for handling low-level resources. An application context itself is a ResourceLoader, Hence provides an application with access to deployment-specific Resource instances.

MessageSource support: The application context implements MessageSource, an interface used to obtain localized messages, with the actual implementation being pluggable.

---

3).Which of the following are the best practices for writing spring XML Configurations?

1) Add a header comment to each configuration file

2) Use consistent naming conventions

3) No version numbers in schema references

4) Prefer setter injection over constructor injection

- 5) Prefer type over index for constructor argument matching
  - 6) Use shortcut forms over expanded forms
  - 7) Reuse bean definitions as much as possible
  - 8) Always use ids as bean identifiers
  - 9) Try to avoid autowiring
  - 10) Always use classpath prefix
  - 11) Always externalize properties
  - 12) Use dependency-check at the development phase
  - 13) Do not abuse/overuse dependency injection
- 
- 

#### 4). Spring framework architecture:

Data Access/Integration--JDBC,ORM,OXM,JMS, Transactions

Web(MVC/Remoting)--WebSocket,Servlet,Web, Portlet

AOP

Aspects

Instrumentation

Messaging

Core container--Beans,Core, Context,spEL

Test

---

---

5)

Spring BeanFactory Container-org.springframework.beans.factory.BeanFactoryinterface.

Spring ApplicationContext Container-org.springframework.context.ApplicationContext

---

## 6) Bean Scopes:

Scope	Description
singleton instance per Spring IoC container (default).	This scopes the bean definition to a single
prototype number of object instances.	This scopes a single bean definition to have any
request request. Only valid in the context of a web-aware Spring ApplicationContext.	This scopes a bean definition to an HTTP
session session. Only valid in the context of a web-aware Spring ApplicationContext.	This scopes a bean definition to an HTTP
global-session session. Only valid in the context of a web-aware Spring ApplicationContext.	This scopes a bean definition to a global HTTP

---

## 7) Spring-Injecting Collection:

Element	Description
---------	-------------

<list>	This helps in wiring i.e., injecting a list of values, allowing duplicates.
--------	---

<set>	This helps in wiring a set of values but without any duplicates.
-------	--

<map>	This can be used to inject a collection of name-value pairs where the name and the value can be of any type.
-------	--

<props>	This can be used to inject a collection of name-value pairs where the name and the value are both Strings.
---------	--

-----

-----

#### 8) Autowiring Modes:

Mode	Description
no	This is a default setting which means no autowiring and you should use explicit bean reference for wiring. You have to do nothing special for this wiring. This is what you already have seen in Dependency Injection chapter.
byName	Autowiring by property name. Spring container looks at the properties of the beans on which autowire attribute is set to byName in the XML configuration file. It then tries to match and wire its properties with the beans defined by the same names in the configuration file.
byType	Autowiring by property datatype. Spring container looks at the properties of the beans on which autowire attribute is set to byType in the XML configuration file. It then tries to match and wire a property if its type matches with exactly one of the beans name in the configuration file. If more than one such beans exists, a fatal exception is thrown.



constructor Similar to byType, but this type applies to constructor arguments. If there is not exactly one bean of the constructor argument type in the container, a fatal error is raised.

autodetect Spring first tries to wire using autowire by constructor, if it does not work, Spring tries to autowire by byType.

#### Autowiring Limitations:

Limitations	Description
Overriding possibility <constructor-arg> and <property> settings which will always override autowiring.	You can still specify dependencies using
Primitive data types properties such as primitives, Strings, and Classes.	You cannot autowire so-called simple
Confusing nature possible prefer using explicit wiring.	Autowiring is less exact than explicit wiring, so if

-----  
-----

9) @Required-----The @Required annotation applies to bean property setter methods

@Autowired-----The @Autowired annotation can apply to bean property setter methods, nonsetter methods, constructor and properties.

@Qualifier-----The @Qualifier annotation along with @Autowired can be used to remove the confusion by specifying which exact bean will be wired.

JSR-250 Annotations----Spring supports JSR-250 based annotations which include @Resource, @PostConstruct and @PreDestroy annotations.(Go through these annotations also)

---

10) @Configuration-----indicates that the class can be used by the Spring IoC container as a source of bean definitions.

@Bean-----annotation tells Spring that a method annotated with @Bean will return an object that should be registered as a bean in the Spring application context

@Import-----annotation allows for loading @Bean definitions from another configuration class

---

11) Spring Event Handling:

ContextRefreshedEvent-----This event is published when the ApplicationContext is either initialized or refreshed. This can also be raised using the refresh() method on the ConfigurableApplicationContext interface.

ContextStartedEvent-----This event is published when the ApplicationContext is started using the start() method on the ConfigurableApplicationContext interface. You can poll your database or you can restart any stopped application after receiving this event.

ContextStoppedEvent-----This event is published when the ApplicationContext is stopped using the stop() method on the ConfigurableApplicationContext interface. You can do the required housekeep work after receiving this event.

ContextClosedEvent-----This event is published when the ApplicationContext is closed using the close() method on the ConfigurableApplicationContext interface. A closed context reaches its end of life; it cannot be refreshed or restarted.

RequestHandledEvent-----This is a web-specific event telling all beans that an HTTP request has been serviced.

-----  
-----

## 12) AOP Terminologies:

Terms	Description
Aspect	This is a module which has a set of APIs providing cross-cutting requirements. For example, a logging module would be called AOP aspect for logging. An application can have any number of aspects depending on the requirement.
Join Point	This represents a point in your application where you can plug-in the AOP aspect. You can also say, it is the actual place in the application where an action will be taken using Spring AOP framework.
Advice	This is the actual action to be taken either before or after the method execution. This is an actual piece of code that is invoked during the program execution by Spring AOP framework.
Pointcut	This is a set of one or more join points where an advice should be executed. You can specify pointcuts using expressions or patterns as we will see in our AOP examples.

Introduction  
or attributes to the existing classes.

An introduction allows you to add new methods

Target Object  
aspects. This object will always be a proxied object, also referred to  
as the advised object.

The object being advised by one or more

Weaving  
aspects with other application types or objects to create an advised object.

This can be done at compile time, load time, or at runtime.

Weaving is the process of linking

-----  
-----

### 13) Custom Aspects Implementation:

Approach	Description
XML Schema based regular classes along with XML based configuration.	Aspects are implemented using the
@AspectJ based declaring aspects as regular Java classes annotated with Java 5 annotations.	@AspectJ refers to a style of

-----  
-----

### 14) Spring Transaction Management:

ACID:

**Atomicity:** A transaction should be treated as a single unit of operation, which means either the entire sequence of operations is successful or unsuccessful.

**Consistency:** This represents the consistency of the referential integrity of the database, unique primary keys in tables, etc.

**Isolation:** There may be many transaction processing with the same data set at the same time. Each transaction should be isolated from others to prevent data corruption.

**Durability:** Once a transaction has completed, the results of this transaction have to be made permanent and cannot be erased from the database due to system failure.

Methods and description:

<code>TransactionStatus getTransaction(TransactionDefinition definition)</code> active transaction or creates a new one, according to the specified propagation behavior.	This method returns a currently active transaction or creates a new one, according to the specified propagation behavior.
<code>void commit(TransactionStatus status)</code> transaction, with regard to its status.	This method commits the given transaction, with regard to its status.
<code>void rollback(TransactionStatus status)</code> rollback of the given transaction.	This method performs a rollback of the given transaction.
<code>int getPropagationBehavior()</code> propagation behavior. Spring offers all of the transaction propagation options familiar from EJB CMT.	This method returns the propagation behavior. Spring offers all of the transaction propagation options familiar from EJB CMT.

<code>int getIsolationLevel()</code> to which this transaction is isolated from the  work of other transactions.	This method returns the degree
---	--------------------------------

<code>String getName()</code> of this transaction.	This method returns the name
---	------------------------------

<code>int getTimeout()</code> seconds in which the transaction must complete.	This method returns the time in
--	---------------------------------

<code>boolean isReadOnly()</code> the transaction is read-only.	This method returns whether
--	-----------------------------

-----  
-----

15)

isolation levels:

<code>TransactionDefinition.ISOLATION_DEFAULT</code> isolation level.	This is the default
--	---------------------

<code>TransactionDefinition.ISOLATION_READ_COMMITTED</code> reads are prevented; non-repeatable reads and phantom reads can occur.	Indicates that dirty
---	----------------------

<code>TransactionDefinition.ISOLATION_READ_UNCOMMITTED</code> reads, non-repeatable reads, and phantom reads can occur.	Indicates that dirty
--	----------------------

<code>TransactionDefinition.ISOLATION_REPEATABLE_READ</code> reads and non-repeatable reads are prevented; phantom reads can occur.	Indicates that dirty
--	----------------------

TransactionDefinition.ISOLATION_SERIALIZABLE	Indicates that dirty reads, non-repeatable reads, and phantom reads are prevented.
--	--

-----

-----

#### 16) propagation types:

TransactionDefinition.PROPAGATION_MANDATORY	Supports a current transaction; throws an exception if no current transaction exists.
---	---

TransactionDefinition.PROPAGATION_NESTED	Executes within a nested transaction if a current transaction exists.
--	---

TransactionDefinition.PROPAGATION_NEVER	Does not support a current transaction; throws an exception if a current transaction exists.
---	--

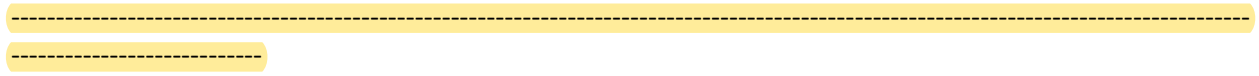
TransactionDefinition.PROPAGATION_NOT_SUPPORTED	Does not support a current transaction; rather always execute nontransactionally.
---	---

TransactionDefinition.PROPAGATION_REQUIRED	Supports a current transaction; creates a new one if none exists.
--	---

TransactionDefinition.PROPAGATION_REQUIRES_NEW	Creates a new transaction, suspending the current transaction if one exists.
--	--

TransactionDefinition.PROPAGATION_SUPPORTS	Supports a current transaction; executes non-transactionally if none exists.
--	--

TransactionDefinition.TIMEOUT_DEFAULT	Uses the default timeout of the underlying transaction system, or none if timeouts are not supported.
---------------------------------------	---



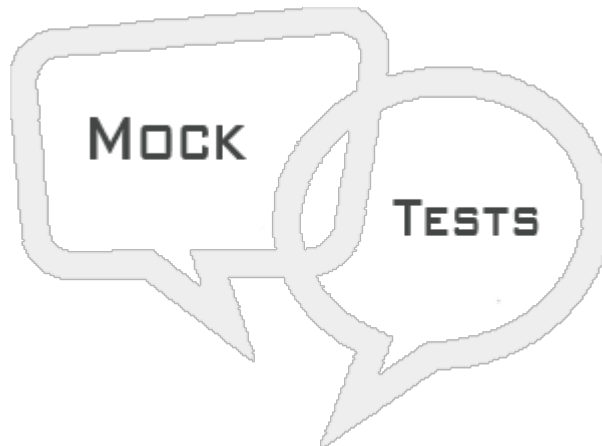


# SPRING MOCK TEST

<http://www.tutorialspoint.com>

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This section presents you various set of Mock Tests related to **Spring Framework**. You can download these sample mock tests at your local machine and solve offline at your convenience. Every mock test is supplied with a mock test key to let you verify the final score and grade yourself.



## SPRING MOCK TEST III

### Q 1 - What is Introduction?

- A - An introduction represents a point in your application where you can plug-in AOP aspect.
- B - This is used to inject values in objects.
- C - This is not invoked during program execution by Spring AOP framework.
- D - An introduction allows you to add new methods or attributes to existing classes.

### Q 2 - What is Target object?

- A - A represents a object in your application where you can plug-in AOP aspect.
- B - The object being advised by one or more aspects, this object will always be a proxy object, also referred to as the advised object.
- C - This is used to inject values in objects.
- D - This is not invoked during program execution by Spring AOP framework.

### Q 3 - What is Weaving?

- A - Weaving is the process of injecting values in objects to create an advised object.
- B - Weaving is the process of linking aspects with other application types or objects to create an advised object.
- C - This is used to inject values in objects.
- D - Weaving is used to check object dependencies.

### Q 4 - What are the different points where weaving can be applied?

- A - Compile time, load time

- B - Compile time, run time
- C - Run time
- D - Compile time, load Time, Run time

**Q 5 - What are the types of advice?**

- A - then, after, after-returning, after-throwing, around
- B - When, after, after-returning, around
- C - Where, after, after-returning, after-throwing, around
- D - Before, after, after-returning, after-throwing, around

**Q 6 - How before advice works?**

- A - Run advice before a class loads.
- B - Run advice before a method execution.
- C - Run advice before http response is to be returned.
- D - Run advice before http request is to be processed.

**Q 7 - How after-returning advice works?**

- A - Run advice after a class loads only if class loads successfully.
- B - Run advice after a method execution only if method completes successfully.
- C - Run advice after http response is returned only if http response is success.
- D - Run advice after http request is processed with no exception.

**Q 8 - How after-throwing advice works?**

- A - Run advice after a method execution only if method exits by throwing an exception.
- B - Run advice after a class loads only if class throws exception during load time.
- C - Run advice after http response is returned with error status.
- D - Run advice after http request is processed and an exception occurred.

**Q 9 - How around advice works?**

- A - Run advice before and after the advised method is invoked.
- B - Run advice before and after a class is loaded.
- C - Run advice before and after http response is returned.
- D - Run advice before and after http request is processed.

**Q 10 - Which of the following aspect implementation spring supports?**

- A - XML Schema based aspect implementation
- B - @AspectJ based aspect implementation
- C - Both of above.
- D - None of above.

**Q 11 - What are the types of the transaction management Spring supports?**

- A - Programmatic transaction management
- B - Declarative transaction management
- C - Both of above.
- D - None of above.

**Q 12 - What is Spring MVC framework?**

- A - Spring MVC framework is Model-Value-Class architecture and used to bind model data with values.
- B - The Spring web MVC framework provides model-view-controller architecture and ready components that can be used to develop flexible and loosely coupled web applications.
- C - Spring MVC framework is used for Transaction management for Web Applications.
- D - Spring MVC framework is used for AOP for Web Applications.

**Q 13 - What is @Controller annotation?**

- A - The @Controller annotation indicates that a particular class serves the role of a controller.
- B - The @Controller annotation indicates how to control the transaction management.
- C - The @Controller annotation indicates how to control the dependency injection.
- D - The @Controller annotation indicates how to control the aspect programming.

**Q 14 - What are the ways to access Hibernate by using Spring?**

- A - Inversion of Control with a Hibernate Template and Callback.
- B - Extending HibernateDAOSupport and Applying an AOP Interceptor node.
- C - Both of above.
- D - None of above.

**Q 15 - Which ORM Spring supports ?**

- A - Hibernate
- B - iBatis
- C - JPA

D - All of above.

E - None of above.

**Q 16 - Which of the following database is not supported using jdbcTemplate?**

A - MySql

B - PostgresSql

C - NoSql

D - Oracle

**Q 17 - How to get object of a service in spring framework?**

A - Using new keyword

B - Using dependency injection

**Q 18 - Which of the following is part of Data Access layer in Spring framework?**

A - Beans

B - Aspects

C - JMS

D - Context

**Q 19 - How to use ref keyword in beans.**

xml?

A - Using setter method only.

B - Using constructor argument only.

C - Using setter method and constructor argument both.

D - None of the above.

**Q 20 - Core container has AOP as one of its module.**

A - True

B - False

**Q 21 - SpEL is part of core container.**

A - False

B - True

**Q 22 - Which class acts as IoC Container?**

- A - ServletContext
- B - DispatcherServlet
- C - **ApplicationContext**
- D - None of the above

**Q 23 - What stands true for spring framework?**

- A - **Spring framework is a light weight framework.**
- B - Spring framework is a heavy weight framework.

**Q 24 - Expression Language/ SpEL was introduced in which version of spring framework.**

- A - 1.0
- B - 2.0
- C - **3.0**
- D - 4.0

**Q 25 - Can we integrate Struts with Spring.**

- A - **Yes**
- B - No

**Q 26 - By default a bean is lazily loaded.**

- A - True
- B - **False**

**Q 27 - By default a bean is eagerly loaded.**

- A - False
- B - **True**

**Q 28 - If a bean is scoped to HTTP request, scope is**

- A - session
- B - global-session
- C - prototype
- D - **request**

**Q 29 - If a bean is created once per loc Container, scope is**

- A - singleton
- B - global-session
- C - prototype
- D - request

**Q 30 - Thread scoped bean is introduced in which version of spring framework.**

- A - 1.0
- B - 2.0
- C - 3.0
- D - 4.0

**Q 31 - If a bean can be created any number of times, scope is**

- A - session
- B - global-session
- C - prototype
- D - request

**Q 32 - What is the scope of stateless bean?**

- A - global-session
- B - singleton
- C - prototype
- D - request

**Q 33 - What is the scope of stateful bean?**

- A - session
- B - global-session
- C - prototype
- D - request

**Q 34 - If a bean is scoped to HTTP session, scope is**

- A - global-session
- B - session
- C - prototype
- D - request

**Q 35 - How to handle shut down of IoC container?**

- A - Using shutdownHook
- B - Using shutdownHandler
- C - Using registerHook
- D - Using registerShutdownHook

**Q 36 - How bean life cycle can be controlled?**

- A - Using init only
- B - Using InitializingBean class only
- C - Using DisposableBean class only
- D - Using All of above

**Q 37 - What is the scope of bean in portlet context?**

- A - session
- B - global-session
- C - prototype
- D - request

**Q 38 - How after advice works?**

- A - Run advice after a method execution regardless of its outcome.
- B - Run advice after a class loads.
- C - Run advice after http response is returned.
- D - Run advice after http request is processed.

**Q 39 - Which class is used to map a database row to a java object in spring?**

- A - ResultSet
- B - RowMapper
- C - RowSetMapper
- D - ResultSetMapper

**Q 40**

A bean must have id attribute in beans configuration file.

- A - True

B - False

**Q 41 - Which of the following class can be used to execute Sql queries in spring?**

B - JDBCHelper

A - JdbcTemplate

C - DBHelper

D - DBTemplate

**Q 42 - Which of the following class can be used to call Stored Procedures in spring?**

A - SPHelper

B - JdbcTemplateCall

C - JdbcTemplate

D - SimpleJdbcCall

**Q 43 - What is a DispatcherServlet?**

A - DispatcherServlet is used for transaction management.

B - DispatcherServlet is used for AOP.

C - DispatcherServlet handles all the HTTP requests and responses.

D - DispatcherServlet is used for Dependency injection.

**Q 44 - What is ACID in transactional management?**

A - Accurate, Controlled, Isolation, Durability

B - Atomicity, Consistency, Independent, Done

C - Atomicity, Consistency, Isolation, Durability

D - Accurate, Controlled, Independent, Done

**Q 45 - Where do you define DispatcherServlet?**

A - In Beans configuration file.

B - Web.xml file

C - Meta-inf/dispatcher.xml

D - Web-inf/ dispatcher.xml

**Q 46 - What is true about BeanPostProcessor?**

A - It is a concrete class.

B - It is an interface.



C - It is an abstract class.

D - None of the above.

**Q 47 - What BeanPostProcessor does?**

A - It processes beans once a bean is initialized.

B - It defines callback methods that you can implement to provide your own instantiation logic, dependency-resolution logic etc.

C - It processes beans once a bean is loaded.

D - It processes beans once a bean exits.

**Q 48 - Can be bean be configured to have an inner bean?**

A - True

B - False

**Q 49 - Can we inject value and ref both together in a bean?**

A - True

B - False

**Q 50 - Following class can be extended to create custom event in spring.**

A - SpringEvent

B - Event

C - ApplicationEvent

D - None of above

## ANSWER SHEET

Question Number	Answer Key
-----------------	------------

1	D
---	---

2	B
---	---

3	B
---	---

4	D
---	---

5	D
---	---

6	B
---	---

7	B
---	---

8	A
---	---

9	A
10	C
11	C
12	B
13	A
14	C
15	D
16	C
17	B
18	C
19	C
20	B
21	B
22	C
23	A
24	C
25	A
26	B
27	B
28	D
29	A
30	C
31	C
32	B
33	C
34	B
35	D
36	D
37	B
38	A
39	B
40	B
41	A
42	D
43	C

44	C
45	B
46	B
47	B
48	A
49	A
50	C

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# Core Spring 3.0 Certification Mock Exam

## Question

### Container

#### Question 1

Given the following Spring configuration file, what is the correct answer:

```
<bean class="com.spring.service.MyServiceImpl">
    <property name="repository" ref="jpaDao"/>
</bean>

<bean class="com.spring.repository.JpaDao"/>
```

1. The first declared bean MyServiceImpl is missing an id must be named myService
2. The second declared bean JpaDao is missing an id must be named jpaDao
3. Answers 1 and 2 are both rights
4. Answers 1 and 2 are both wrong

#### Question 2

Given the Spring configuration file, which are the correct statements?

```
<bean class="com.spring.service.BankServiceImpl"
      p:bankName="NationalBank">
</bean>
```

1. The p namespace has to be declared
2. Bean id is bankServiceImpl
3. The BankServiceImpl references a NationalBank bean
4. NationalBank is a scalar value

#### Question 3

How is named the bean that is defined in the following configuration class. Select a single answer.

```
@Configuration
public class ApplicationConfig {

    @Autowired
    private DataSource dataSource;

    @Bean
    ClientRepository clientRepository() {
        ClientRepository accountRepository = new JpaClientRepository();
        accountRepository.setDataSource(dataSource);
        return accountRepository;
    }
}
```

```
}  
}
```

1. JpaClientRepository
2. jpaClientRepository
3. clientRepository
4. Two beans are defined : a data source and a repository

#### Question 4

How could you externalize constants from a Spring configuration file or a Spring annotation into a .properties file? Select one or more answers

1. By using the <util:constant /> tag
2. By declaring the ConstantPlaceholderConfigurer bean post processor
3. By using the <context:property-placeholder /> tag
4. By using the c: namespace

#### Question 5

What statement is not correct in live environment? Select a unique answer.

1. Constructor and properties autowiring in the same bean are not compatible
2. A bean should have a default or a no-args constructor
3. The <constructor-arg> tag could take type, name and index to reduce ambiguity
4. None of the above
5. All of the above

#### Question 6

What are the right affirmations about the @PostConstruct, @Resource and the @PreDestroy annotations?

1. Those annotations are specified in the JSR-250
2. The Spring Framework embedded those annotation
3. The <context:component-scan> tag enable them
4. The <context:annotation-config > tag enable them
5. Declaring the CommonAnnotationBeanPostProcessor enable them

#### Question 7

What is/are typically case(s) where you usually need to manually instantiated an ApplicationContext?

1. In a web application
2. In an integration test running with the SpringJUnit4ClassRunner
3. In a standalone application started with a main method
4. None of the above

### Question 8

Select the right statement about referring a Spring configuration file inside the package com.example.myapp in the below example?

```
ApplicationContext context = new  
ClassPathXmlApplicationContext("classpath:/com.example.myapp.config.xml");
```

1. The classpath: prefix could be omit
2. Package name with dot is not well formatted using the dot character
3. The slash character preceding com.example could be omit
4. All of the above
5. None of the above

### Question 9

How to auto-inject into a field a bean by its name? Select one or more response.

1. With the name attribute of the @Autowired annotation
2. By using the single @Qualifier annotation
3. By using both the @Autowired and the @Qualifier spring annotations
4. By using the @Autowired annotation and naming the field with the bean name

### Question 10

What are the main advantages of using interfaces when designing business services? Select one or more answers.

1. Mocking or stubbing the service
2. Be able to use the Spring auto-injection
3. Can do dependency checking
4. Loosely coupled code

### Question 11

Select one or many correct answers about spring bean life cycle.

1. The method annotated with @PostConstruct is called after bean instantiation and before properties setting of the bean
2. The method @PreDestroy of a prototype bean is called when the bean is garbage collected
3. The init() method declared in the init-method attribute of a bean is called before the afterPropertiesSet callback method of the InitializingBean interface
4. The method annotated with @PostConstruct is called before before the afterPropertiesSet callback method of the InitializingBean interface

### Question 12

Given the following configuration class, what are correct affirmations? Select one or more answers.

```

public class ApplicationConfig {

    private DataSource dataSource;

    @Autowired
    public ApplicationConfig(DataSource dataSource) {
        this.dataSource = dataSource;
    }

    @Bean(name="clientRepository")
    ClientRepository jpaClientRepository() {
        return new JpaClientRepository();
    }
}

```

1. @Configuration annotation is missing
2. Default or no-arg constructor is missing
3. @Bean name is ambiguous
4. @Bean scope is prototype

### Question 13

What are the features of the XML <context: namespace? Select one or many answers.

1. @Transactional annotation scanning
2. @Aspect annotation detection enabling
3. @Autowired annotation enabling
4. @Component annotation scanning

## Test

### Question 14

Select one or more correct statements about developing integration test with Spring support.

1. A new Spring context is created for each test class
2. To get a reference on the bean you want to test, you have to call the getBean() method of the Spring context
3. Spring context configuration could be inherits from the super class
4. The Spring context configuration file has to be provided to the @ContextConfiguration annotation

### Question 15

What are the main advantage(s) for using Spring when writing integration tests?

1. Reuse Spring configuration files of the application
2. Create mock or stub
3. Be able to use the rollback after the test pattern
4. Use dependency injection

### Question 16

What are the main advantage(s) for using Spring when writing unit tests?

1. Reuse Spring configuration files of the application
2. Use dependency injection
3. Provide some mocks for servlet classes
4. All of the above
5. None of the above

### Question 17

What is right about the spring test module?

1. It provides an abstraction layer for the main open source mock frameworks
2. Provides the @Mock annotation
3. It dynamically generates mock objects
4. All of the above
5. None of the above

### Question 18

Select correct statement(s) about transactional support of the spring test module.

1. Transaction manager could be set within the @TransactionConfiguration annotation
2. Method annotated with @Before is executed outside of the test's transaction
3. Spring test may rollback the transaction of a service configured with the REQUIRES\_NEW propagation
4. The transaction of a method annotated with the @Rollback annotation with its default values is rolled back after the method has completed

## AOP

### Question 19

Considering 2 classes AccountServiceImpl and ClientServiceImpl. Any of these 2 classes inherits from each other. What is the result of the pointcut expressions?

```
execution(* *..AccountServiceImpl.update(..)
&& execution(* *..ClientServiceImpl.update(..))
```

1. Matches public update methods of the 2 classes, whatever the arguments
2. Matches any update methods of the 2 classes, whatever the arguments and method visibility
3. Matches any update methods of the 2 classes, with one more arguments and whatever method visibility
4. No joint point is defined

### Question 20



Using the Spring AOP framework, what is the visibility of the method matches by the following join point?

```
@Pointcut("execution(* *(..))")  
private void anyOperation() {};
```

1. All methods, whereas there visibility
2. All methods, except private method
3. Protected and public methods
4. Public methods

### Question 21

What are the 2 correct statements about AOP proxy?

1. AOP proxies are created by Spring in order to implement the aspect contracts
2. AOP proxies are always created with a JDK dynamic proxy
3. Only classes that implements a least one interface could be proxied
4. All methods could be proxied
5. Proxies are created by a BeanPostProcessor

### Question 22

What is an after throwing advice? Select a unique answer.

1. Advice that could throw an exception
2. Advice to be executed if a method exits by throwing an exception
3. Advice that executes before a join point
4. Spring does not provide this type of advice

### Question 23

What is an after returning advice? Select a unique answer.

1. Advice to be executed regardless of the means by which a join point exits
2. Advice that surrounds a method invocation and can perform custom behavior before and after the method invocation
3. Advice to be executed before method invocation
4. Advice to be executed after a join point completes without throwing an exception

### Question 24

What is an advice? Select a unique answer.

1. An action taken by an aspect at a particular join point
2. A point during the execution of a program
3. An aspect and a pointcut
4. A predicate that matches join points

#### Question 25

What is a pointcut? Select a unique answer.

1. Code to execute at a join point
2. An expression to identify joinpoints
3. An advice and a jointpoint
4. None of the above

#### Question 26

Select method's signatures that match with the following pointcut:

`execution(* com.test.service..*.*(*))`

1. `void com.test.service.MyServiceImpl#transfert(Money amount)`
2. `void com.test.service.MyServiceImpl#transfert(Account account, Money amount)`
3. `void com.test.service.account.MyServiceImpl#transfert(Money amount)`
4. `void com.test.service.account.MyServiceImpl#transfert(Account account, Money amount)`
5. None of the above

#### Question 27

What are the unique correct answers about Spring AOP support?

1. An advice could proxied a constructor's class
2. A point cut could select methods that have a custom annotation
3. Static initialization code could be targeted by a point cut
4. Combination of pointcuts by `&&`, `||` and the `!` operators is not supported

#### Question 28

Using the Spring AOP framework, what are the joinpoint methods of the following pointcut expressions?

`execution(public * *.*(..))`

1. The execution of all public method
2. The execution of all public method returning a value
3. The execution of all public method having at least one parameter

4. The execution of all public method in class belonging to the default java package

## Data Access

### Question 29

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.

1. It is mandatory for using Spring exception translation mechanism
2. May be improve performance when using Hibernate
3. Spring optimizes its transaction interceptor
4. Provides safeguards with Oracle and some other databases

### Question 30

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

1. JDBC
2. NoSQL
3. Hibernate
4. JPA

### Question 31

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

1. Data source access
2. Open/close data source connection
3. JDBC exception wrapping into DataAccess Exception
4. JDBC statement execution

### Question 32

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

1. RowMapper
2. RowCallbackHandler
3. ResultSetExtractor
4. ResultSetMapper

### Question 33

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

1. Listing entity classes annotated with @Entity
2. Scanning a package to detect annotated entity classes (with @Entity)
3. Listing hibernate XML mapping configuration file (.hbm.xml)

4. All above

## Transaction

### Question 34

What is/are incorrect statements about XML declaration of the transaction manager bean? Select one or more answers.

1. The tx namespace provides JTA transaction manager declaration shortcut syntax
2. Id of the bean has to be *transactionManager*
3. Depending the application persistence technology, the *HibernateTransactionManager* or the *DataSourceTransactionManager* could be used as bean class
4. Default transaction timeout could be given

### Question 35

Assuming `@Transactional` annotation support is enabled and the `transferMoney` method is called through a Spring AOP proxy, what is the behavior of the following code sample?

```
@Transactional(propagation=Propagation.REQUIRED)
public void transferMoney(Account src, Account target, double amount) {
    add(src, -amount);
    add(src, amount);
}

@Transactional(propagation=Propagation.REQUIRES_NEW)
public void add(Account account, Double amount) {
    // IMPLEMENTATION
}
```

1. The `add()` method executes code in a new transaction
2. The `add()` method uses the transaction of the `transferMoney()` method
3. When calling the `add()` method, an exception is thrown
4. Other behavior

### Question 36

Does Spring provides programmatic transaction management? Select a unique answer.

1. Yes with the `TransactionTemplate` class
2. Yes with the `TransactionService` class
3. Yes using the `@Transactional` bean post processor
4. No

### Question 37

What is the transaction behavior of the PROPAGATION\_REQUIRES\_NEW mode? Select a unique answer.

1. If a transaction exists, the current method should run within this transaction. Otherwise, it should start a new transaction and run within its own transaction.
2. If a transaction is in progress, the current method should run within the nested transaction of the existing transaction. Otherwise, a new transaction has to be started and run within its own transaction.
3. The current method must start a new transaction and run within its own transaction. If there is an existing transaction in progress, it is suspended.
4. None of the above

#### Question 38

What is the default rollback policy in transaction management?

1. Rollback for any Exception
2. Rollback for RuntimeException
3. Rollback for checked exceptions
4. Always commit

## Spring @MVC

#### Question 39

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

1. An absolute path to the view
2. A logical view name
3. A new JstlView
4. void
5. null value

#### Question 40

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

1. In a Spring application context XML configuration file
2. Into the web.xml file of the web application
3. Into the java code by using annotations
4. Into the JSP pages

#### Question 41

What is the easiest method to write a unit test?

1. `void displayAccount(HttpServletRequest req, HttpServletResponse resp) throws ServletException, IOException`
2. `void displayAccount(HttpServletRequest req, HttpSession Session) throws ServletException, IOException`
3. `@RequestMapping("/displayAccount")  
String displayAccount(@RequestParam("accountId") int id, Model model)`
4. `@RequestMapping("/displayAccount")  
String displayAccount(@PathVariable("accountId") int id, Model model)`

## Spring Security

### Question 42

How could you secure MVC controller with Spring Security? Select a unique answer.

1. With the `@Secured` annotation
2. With the `@RolesAllowed` annotation
3. In a XML security configuration file
4. All of the above
5. None of the above

### Question 43

What are the possible mechanisms provided by Spring Security to store user details? Select one or more correct answers.

1. Database
2. JAAS
3. LDAP
4. Properties file

### Question 44

What is true about Spring security configuration and the security namespace? Select one or more correct answers.

1. The access attribute of the intercept-url tag support both EL and constants together.

2. The patterns declared into the `intercept-url` tag are analyzed from up to bottom. Winning is the first that matches.
3. The patterns declared into the `intercept-url` tag use by default the java regex syntax.
4. Security rules may applied depending request parameter

## Remoting

### Question 45

What do you have to do even if you are using the RMI Spring Remoting support? Select one or more correct answers.

1. Implements the Remote interface
2. Extends the RemoteObject class
3. Catching the RemoteException exception
4. Implements the Serializable interface

### Question 46

What is exact about the `HttpInvokerServiceExporter`? Select one or more correct answers.

1. Has to run into a HTTP server as Jetty
2. Could process both POST and GET requests
3. Could be used with any http client as Jakarta Commons HttpClient
4. Could consume SOAP http request

## JMS

### Question 47

What is the method that is not provided by the `JmsTemplate` Spring class?

1. `convertAndSend`
2. `onMessage`
3. `receiveAndConvert`
4. `setDefaultDestination`

### Question 48

How could you implement a JMS Listener using the Spring JMS support? Select one or more correct answers.

1. By implementing the `javax.jms.MessageListener` interface
2. By implementing the `SessionAwareMessageListener` interface provided by Spring
3. Without any code, only using the `jms` namespace provided by Spring
4. By writing a single POJO without parent class or interface

## JMX

### Question 49

What is easier to do by using Spring JMS support? Select one or more correct answers.

1. Register any Spring bean as JMX MBean
2. Register an existing MBean with a `MBeanServer`
3. Accessing to remote MBean
4. Control the attributes and the operations of a Spring bean exposes as a MBean

### Question 50

What is the purpose of the `@ManageResource` annotation? Select a single answer.

1. Expose a bean's property (getter/setter) to JMX
2. Expose a bean's method to JMX
3. Identify a Spring bean as a JMX MBean
4. None of the above



## Response

### Container

#### Question 1

Answer 2 is correct. Those beans are anonymous because no id is supplied explicitly. Thus Spring container generates a unique id for that bean. It uses the fully qualified class name and appends a number to them. However, if you want to refer to that bean by name, through the use of the `ref` element you must provide a name (see [Naming Beans section](#) of the Spring reference manual). To be correct, the 2<sup>nd</sup> bean has to declare a `jpaDao` id attribute in order to be reference by the `repository` property of the first bean.

#### Question 2

Answers 1 and 4 are correct.

1. To set bean's property with the `p:propertyName` shortcut, you have to declare the <http://www.springframework.org/schema/p> in your xml configuration file. No xsd is required.
2. The bean is anonymous. Spring generates a unique id:  
`com.spring.service.BankServiceImpl#0`
3. To reference another bean with the `p` namespace, you have to use the `p:propertyName-ref` syntax
4. Due to the above explanation, `NationalBank` is not a bean reference, so it is a simple String and thus a scalar value.

#### Question 3

Correct answer is 3.

The `@Bean` annotation defines a String bean with the id "clientRepository". `JpaClientRepository` is the implementation class of the bean. The data source is injected and is not declared in this class.

#### Question 4

The only possible answer is the number 3.

1. The `<util:constant static-field="constant name"/>` tag enables to reference a Java constant or enumeration into a spring configuration file
2. `ConstantPlaceholderConfigurer` does not exist. You may think about the `PropertyPlaceholderConfigurer` bean post processor.
3. The `<context:property-placeholder location="file:/myApp.properties" />` tag activates the replacement of `${...}` placeholders, resolved against the specified properties file.
4. The `c:` namespace is for simplifying constructor syntax (since Spring 3.1) and don't provide such feature.

#### Question 5

The statements number 5 is right.

1. You may auto-wiring properties by constructor, setter or properties in the same bean
2. The <constructor-arg> tag helps to instantiated a bean without default or no-args constructor
3. The <constructor-arg> tag could take type and index to reduce ambiguity, but not name which requires debug symbols.

#### Question 6

Answers 1, 3, 4 and 5 are rights.

1. The @PostConstruct, @PreDestroy and @Resource annotations are defined in the JSR-250
2. They belong to the javax.annotation package. You should add an external jar to use them in Java 5. Java 6 and 7 integrates them.
3. The <context:component-scan> automatically detects stereotyped classes and turns on the <context:annotation-config>
4. The <context:annotation-config > activates the Spring infrastructure for various annotations to be detected in bean classes, including the JSR 250 annotations
5. The CommonAnnotationBeanPostProcessor supports common Java annotations out of the box, in particular the JSR-250 annotations.

#### Question 7

Correct answer in the number 3.

1. In a web application, the ContextLoaderListener is in charge to create an WebApplicationContext.
2. In an integration test based on Spring, the SpringJUnit4ClassRunner creates the application context for you. The @ContextConfiguration annotation allows to specified application context configuration files.
3. In a main method, you have to instantiated a class implementing the ApplicationContext interface (examples: ClassPathXmlApplicationContext or FileSystemXmlApplicationContext)

#### Question 8

Answer number 4 is right.

1. When using the ClassPathXmlApplicationContext, the classpath: prefix is default one so you could omit it
2. In a Spring location resource, package separator is a slash and not a dot. Thus the com/example/myapp/config.xml syntax has to be used.
3. ClassPathXmlApplicationContext starts looking from root of the classpath regardless of whether specify "/"

#### Question 9

Answers number 3 and 4 are valid.

1. The `@Autowired` annotation has no name property, just a required one.
2. Autowiring a field, the `@Inject` or the `@Autowired` or the `@Resource` annotations are mandatory.
3. The `@Qualifier("name")` annotation complements the use of the `@Autowired` annotation by specifying the name of the bean to inject
4. When 2 beans are eligible to auto-injection, Spring uses the field name to select the appropriate one.

#### Question 10

Answers number 1 and 4 are valid.

1. With modern mock API like Mockito or EasyMock, interfaces are not mandatory for mocking or stubbing the service. But using interface remains easier when you have to manually mock the service in unit test.
2. Auto-injection is possible with class. Spring uses CGLIB.
3. Dependency checking is an advantage of dependencies injection.
4. The Inversion of Control pattern requires an interface to separate 2 classes. This pattern provides code more flexible, unit testable, loosely coupled and maintainable.

#### Question 11

Correct answers: 4

1. In the bean lifecycle, method annotated with `@PostConstruct` is called after the properties set step and the `BeanPostProcessors#postProcessBeforeInitialization` step
2. Destroy methods of prototype beans are never called
3. In the bean lifecycle, the `afterPropertiesSet` callback method of the `InitializingBean` is called after the method annotated with the `@PostConstruct` annotation and before the `init`-method declared in the XML configuration file.
4. In the bean lifecycle, the method annotated with the `@PreDestroy` annotation is called before the destroy callback of the `DisposableBean` interface and before the `destroy`-method declared in the XML configuration file.

#### Question 12

Correct answers are 1 and 2.

1. In order to be taken into account by Spring, the `ApplicationConfig` class has to be annotated with the `@Configuration` annotation
2. Default or no-arg constructor is mandatory. Here, the provided constructor with a `dataSource` parameter is not taken into account
3. The bean name is `clientRepository`. The name property of the `@Bean` annotation is specified thus the method name `jpaClientRepository` is ignored.
- 4.

### Question 13

Correct answers are 3 and 4

1. Use `<tx:annotation-driven />` to enable `@Transactional` annotation scanning
2. Use `<aop:aspectj-autoproxy />` to enable detection of `@Aspect` bean
3. Turns on `<context:annotation-config />` or `<context:component-scan />` to enable `@Autowiring` annotation
4. Turns on `<context:component-scan />` to enable `@Component` annotation scanning

## Test

### Question 14

The only correct answer is number 3.

1. The Spring context is cached across tests unless you use `@DirtiesContext` annotation
2. With the Spring test module, dependency injection is available in test case. So you may auto-wired the bean to test
3. By default, a `@ContextConfiguration` annotated class inherits the spring context configuration file locations defined by an annotated superclass. The `inheritLocations` of this attribute allows to change this default behavior.
4. If no context configuration file is provided to the `@ContextConfiguration` annotation, Spring use a file convention naming. It try to load a file named with the test class name and suffices by the `"-context.xml"` suffice (i.e. `MyDaoTest-context.xml`)

### Question 15

Correct answers are 1, 3 and 4.

What are the main advantage(s) for using Spring when writing integration tests?

1. More than testing multiple classes together, integration test may allow to test your spring configuration file and/or to reuse it.
2. Mocking or stubbing is more frequent in unit tests than in integration tests. And Spring does not provide any implementation or abstraction of mock framework.
3. The framework may create and roll back a transaction for each test method. Default rollback policy could be change by using the `@TransactionConfiguration` annotation. And default mode could be overridden by the `@Rollback` annotation.
4. `DependencyInjectionTestExecutionListener` provides support for dependency injection and initialization of test instances.

### Question 16

The correct answer is the number 3.

What are the main advantage(s) for using Spring when writing unit tests?

1. You don't need Spring container to write unit test
2. Refer to the answer number 1.
3. The org.springframework.mock package provides mock classes like MockHttpSession or MockHttpContext. They could be helpful for unit test in the presentation layer and when you don't use any mock framework such as Mockito or EasyMock.

#### Question 17

Answer 5 is correct.

What is right about the spring test module?

1. The spring test module does not provide an abstraction layer for open source mock frameworks like EasyMock, JMock or Mockito
2. The @Mock annotations comes from the Mockito framework
3. The spring test module does not provide mechanism to generate mock objects at runtime

#### Question 18

Correct statements are number 1 and 4.

1. The transactionManager property of the @TransactionConfiguration annotation enable to set the bean name of the PlatformTransactionManager that is to be used to drive transactions.
2. Method annotated with @Before is executed inside the test's transaction. You have to use the @BeforeTransaction to execute code outside the test's transaction.
3. The REQUIRES\_NEW propagation suspends the current test's transaction then creates a new transaction that will be used to execute the service. A commit at the service level could not be changed by the test.
4. The transaction for the annotated method should be rolled back after the method has completed.

## AOP

#### Question 19

The correct answer is the number 4.

Considering 2 classes AccountServiceImpl and ClientServiceImpl. Any of these 2 classes inherits from each other. What is the result of the pointcut expressions?

```
execution(* *..AccountServiceImpl.update(..))  
&& execution(* *..ClientServiceImpl.update(..))
```

Pointcut expression could not satisfy both first and second execution point. Do not confuse the && operator and || operator.

### Question 20

Correct answer is the number 4.

Due to the proxy-based nature of Spring's AOP framework, protected methods are by definition not intercepted, neither for JDK proxy nor for CGLIB proxies. As a consequence, any given pointcut will be matched against public methods only!

To intercept private and protected methods, AspectJ weaving should be used instead of the Spring's proxy-based AOP framework.

### Question 21

The 2 correct statements are 1 and 5.

What are the 2 correct statements about AOP proxy.

1. An object created by the AOP framework in order to implement the aspect contracts
2. If the target object does not implement any interfaces then a CGLIB proxy will be created.  
You could also use CGLIB proxy instead of JDK dynamic proxy
3. If the target object does not implement any interfaces then a CGLIB proxy will be created.
4. When CGLIB proxy is used, final methods cannot be advised, as they cannot be overridden.
5. AOP Proxies are created by the AbstractAutoProxyCreator#postProcessAfterInitialization method.

### Question 22

The answer number 2 is correct.

1. A before advice could throw an exception
2. An after throwing advice is executed if a method exits by throwing an exception
3. An advice that executes before a join point is named a before advice
4. Spring supports after throwing advices

### Question 23

Correct answer: 4

1. This is an after (finally) advice
2. This is an around advice
3. This is a before advice
4. True

### Question 24

Correct answer: 1

1. Definition of an advice
2. Definition of a joint point
3. Represents nothing
4. Definition of a point cut

#### Question 25

Correct answer: 2

1. Definition of an advice
2. Definition of a pointcut
3. Represents nothing

#### Question 26

Correct answers: 1, 3

Select methods that match with the following pointcut:

```
execution(* com.test.service..*.*(*))
```

1. True
2. The pattern (\*) matches a method taking one parameter of any type
3. The com.test.service.account sub-package matches the pointcut
4. False for the same reason as answer number 2.

#### Question 27

Correct answers: 2

1. Interception of constructors requires the use of Spring-driven native AspectJ weaving instead of Spring's proxy-based AOP framework
2. The @annotation designator enables to select methods that are annotated by a given annotation
3. The staticinitialization AspectJ designator is not supported by Spring AOP
4. Pointcut expressions can be combined using &&, || and !

#### Question 28

Correct answers: 1

1. The execution of all public method
2. The \* return type pattern indicates any return value or void
3. The (..) param pattern indicates 0, 1 or many parameters

4. No package name is specified. So classes of any package could match.

## Data Access

### Question 29

Correct answers: 2 , 4

1. Spring exception translation mechanism has nothing to do with read-only transaction
2. Read-only transaction prevents Hibernate from flushing its session. Hibernate do not do dirty checking and it increases its performance.
3. No
4. When jdbc transaction is marked as read-only, Oracle only accepts SELECT SQL statements.

### Question 30

Correct answers: 1, 3, 4

1. JDBC is supported: JdbcTemplate, JDBCException wrapper ...
2. Some NoSQL databases are supports through the Spring Data project
3. Hibernate is supported: HibernateTemplate, AnnotationSessionFactoryBean ...
4. JPA is supported: LocalEntityManagerFactoryBean, @PersistenceContext annotation support

### Question 31

Correct answer: 1

1. A JdbcTemplate requires a DataSource as input parameters
2. JdbcTemplate uses the provided datasource to open then close a JDBC connection
3. Callback methods of JdbcTemplate throw SQL Exception and Spring converts into DataAccessException
4. For example, the queryForInt method executes an SQL statement

### Question 32

Correct answer: 3

1. RowMapper : result set parsing when need to map each row into a custom object
2. RowCallbackHandler : result set parsing without returning a result to the JdbcTemplate caller
3. ResultSetExtractor : for result set parsing and merging rows into a single object
4. ResultSetMapper : this class does not exist

### Question 33



Correct answer: 3

1. False. This is supported by the AnnotationSessionFactoryBean using annotatedClasses
2. False. This is supported by the AnnotationSessionFactoryBean using packagesToScan
3. True using mappingLocations
4. False

## Transaction

### Question 34

Correct answer: 2

1. <tx:jta-transaction-manager />
2. Id of the transaction manager bean could be customized (ie. txManager)
3. DataSourceTransactionManager is a transaction manager for a JDBC data source. HibernateTransactionManager may be used to manage transaction with Hibernate.
4. The AbstractPlatformTransactionManager has a defaultTimeout property that could be customized

### Question 35

Correct answer: 2

In proxy mode, only external method calls coming in through the proxy are intercepted. In the code snippet, the add() method is self-invoked. This means that, the @Transactional annotation of the add() method is not interpreted. The REQUIRES\_NEW propagation level is not taken into account. To summary, when the transferMoney() methods calls add() method directly, the transaction attributes of add() method are not used

### Question 36

Correct answer: 1

1. The TransactionTemplate class provides an execute(TransactionCallback) method
2. The TransactionService class does not exists
3. The @Transactional annotation is for declarative transaction management

### Question 37

Correct answer: 3

1. PROPAGATION\_REQUIRED
2. PROPAGATION\_NESTED
3. PROPAGATION\_REQUIRES\_NEW

### Question 38

Correct answer: 2

1. False.
2. True
3. False
4. False

## Spring @MVC

### Question 39

Correct answer: 1

1. Spring does not allow to return an absolute path to the view
2. Controller could return a String that matches with a logical view name
3. A JstlView with the .jsp path (i.e. /WEB-INF/accountList.jsp)
4. void forward to the default view
5. null forward to the default view

### Question 40

Correct answer: 2, 4

1. Spring MVC controllers are beans. So you can declare them into a Spring application context XML configuration file that could be loaded by the DispatcherServlet.
2. In the web.xml, you may declarer and a ContextLoaderListener and a DispatcherServlet that are in charge to load XML Spring configuration files. But you cannot declare controllers directly in these file.
3. The @Controller annotation may be used to annoted Spring MVC Controller beans that handle HTTP requests.
4. JSP is the View of the MVC Pattern. Thus this is not the right place to declare controllers.

### Question 41

Correct answer: 3

1. HttpServletRequest and HttpServletResponse have to be mocked. Id of the account to display could be set into the http request parameters.
2. HttpServletRequest and HttpSession have to be mocked. Id of the account to display could be set into the http request parameters.
3. This method is not dependent of the servlet API. Id of the account to display may be directly passed through the call stack. Thus test methods are simplified.

4. The `@PathVariable` annotation has to be bound to a URI template variable. This is not the case.

## Spring Security

### Question 42

Correct answer: 4

1. `@Secured` annotation is a Spring Security annotation
2. `@RolesAllowed` is a JSR-250 annotation that is supported by Spring Security
3. Spring Security could be configured in a XML way to intercept particular URLs

### Question 43

Correct answer: 1, 2, 3 and 4

### Question 44

Correct answer: 2

1. You cannot mix EL and constant in the same configuration file
2. If more than one `intercept-url` matches, the top one is used
3. Ant pattern is used by default. But you can change to use regular expression.
4. Security rules may apply to request URL, request method (GET, POST ...) but not to request parameters.

## Remoting

### Question 45

Correct answer: 4

1. No more interface to implement. RMI Client and Server could be POJO.
2. No more class to extend. RMI Client and Server could be POJO.
3. Spring Remoting wraps the checked `RemoteException` into `RuntimeException`.
4. Object that are transferred via RMI are serializable/unserializable. So they have to implement the `Serializable` interface.

### Question 46

Correct answers: 1, 3

1. `HttpInvokerServiceExporter` requires a HTTP web server to process incoming http request. Tomcat or Jetty is possible candidates. Spring also supports the Oracle/Sun's JRE 1.6 HTTP server.
2. Only the POST method is supported. Maybe due to the 256 characters limit of the GET method.
3. Spring comes with 2 http client implementations: for Commons HttpClient and classic JavaSE API. You can create a custom one by extending the `AbstractHttpInvokerRequestExecutor` class.
4. Does not support SOAP web service. Use the Spring web service module or use the JAX-WS or JAX-RPC remoting support.

## JMS

### Question 47

Correct answer: 2

1. The `convertAndSend` method sends a given object to a destination, converting the object to a JMS message.
2. The `onMessage` method does not exist.
3. The `receiveAndConvert` method receives a message synchronously then convert the message into an object
4. The `setDefaultDestination` method sets the destination to be used on send/receive operations that do not have a destination parameter.

### Question 48

Correct answers: 1, 2 , 4

1. The `javax.jms.MessageListener` interface could be used with the `SimpleMessageListenerContainer`
2. The `SessionAwareMessageListener` interface could be used with `DefaultMessageListenerContainer` and `SimpleMessageListenerContainer`
3. Business code is required to handle and process the JMS message.
4. A JMS Listener could be a POJO. The name of the handler method to invoke has to be specified in the `<jms:listener />` tag.

## JMX

### Question 49

Correct answers: 1, 2, 3, 4

1. The `MBeanExporter` class allow to expose any Spring bean as a JMX MBean
2. Existing MBean could be declared as Spring bean. Then the `<context:mbean-export />` directive enables their registration to the `MBeanServer`

3. Remote MBean could be access through a proxy
4. Implementations of the MBeanInfoAssembler interface do the job

### Question 50

Correct answer: 3

1. @ManageAttribute exposes a bean's property (getter/setter) to JMX
2. @ManageOperation exposes a bean's method to JMX
3. @ManageResources identify a Spring bean as a JMX MBean