1.Name attribute of @Column annotation permits the name of the column to be explicitly specified.

A - true

B – false

2. Can you inject null and empty string values in Spring?

A - true

B – false

3. 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------ANS

4. 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.

5. - SpEL is part of core container.

A - False

B - True

6 - 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.

7. SpEX is NOT one of its module Core container.

A - True

B – False

8. 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.

9. Can we inject value and ref both together in a bean?

A - True

B – False

10. Beans, Core, Context, SpEL are the modules of core container.

Ans : true

11. 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.

12. 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.

13. Run advice before and after the advised method is invoked.

ans. around advice

14. length attribute of @Column annotation permits the size of the column used to map a value particularly for a String value.

[A - false](javascript:void(0);)

B – true

15. needs to be implemented by objects that can resolve views by name .

ANS : ViewResolver

16. The @Transactional annotation allows u to def transactions programmatically.

Ans: FALSE

17. What are the ways to access Hibernate by using Spring?

[A - Inversion of Control with a Hibernate Template and Callback.](javascript:void(0);)

[B - Extending Hibernate DAO Support and Applying an AOP Interceptor node.](javascript:void(0);)

[C - Both of above.](javascript:void(0);)

[D - None of above.](javascript:void(0);)

18. Which of the following is correct assertion about spring?

[A - Spring enables developers to develop enterprise-class applications using POJOs.](javascript:void(0);)

[B - Spring is organized in a modular fashion.](javascript:void(0);)

[C - Testing an application written with spring is simple because environment-dependent code is moved into this framework.](javascript:void(0);)

[D - All of above.](javascript:void(0);)

19. 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

20. 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.

21.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.

22.What are the modules of spring web flow?

a.Spring-faces

b.Spring-bundling

**c.Spring-container**

d.Spring-webflow

23. 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**

**24.** Spring MVC provides better way to seperate which of the following?

a.Presentation

b.Tools

c.Data Access

**d.Bussiness Logic**

25. To validate the form fields you need to have a seperate UserValidator class that implements the validator interface, Override the validate() method perform all the validations.

State True or False

**a). TRUE-------------ANS**

b). FALSE

26. XML Mapping file offers which of the following?

Select One:

a.Readable Metadata

b.Surrogate key generation strategy

c.Collecion metadata

**d.all the listed options---------ANS**

e.Column/Table Mapping

22. In Spring AOP, the process of linking aspect with other application types or objects to create an advice object is called \_\_\_\_\_.

Weaving(ans)

23. <list> tag is used to wire a list of values, allowing duplicates.

24. BeanFactory, ApplicationContext classes acts as IoC containers in Spring.

25. AOP stands for Aspect Oriented Programming.

26. SpEL is NOT part of core container.

ANS: false (it is part of core container)

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

ans: ApplicationEvent

28. 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 the above

29. how many intances can be created for a global session?

ANS: one

30. what display the data with help of model?

Ans: View

31. 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.

32. which can be used to inject a collection of name value pairs where name and value can be of any type.

(MAP)

33. 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.

34. which of the following not availble in HQL?

ANS: select,having,where

35. which is a aggregate function in HQL(multiple choice)?

sum avg count (NOT Aggregate).

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

A - DB2/NT

B - MySQL

C - FoundationDB

D – PostgreSQL

37. 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.

38. 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.

39. what is required to write a basic spring program?

a. jdk

b. ide

c. marven

d. all the above

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

41. Spring framework is a light weight framework.

42. singleton is the default scope of any spring bean.

43. 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----------ANS

2. Default or no-arg constructor is missing-------ANS

3. @Bean name is ambiguous

4. @Bean scope is prototype

44. <id name="deptId" type="string">

<column name="columnid" length="30"/>

<generatoers/> <id/> [/xml]

The above is an example of creatinf which key?

a.DB key

b.Unique key

c.Secondary key

d.Primary key--------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

a. only I--------------ANS

b.only II

c. Neither I or II

d. Both I and II

46.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>

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

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)

48.Which of the following is not available in HQL

a) Select

b)Where

c)Sub---------------Ans(not sure)

d)Having

49.maven is a project management and comprehension too

True----------Ans

False

50. How many layers are there in Hibernate architechture

a)3

b)4-------Ans

c)5

d)2

51. Beans,Core, Context,spEL are the components in Core container

True----------Ans

False

52. PROPAGATION\_REQUIRES\_NEW

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

53. 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>---------------ANS

d)<props>

54. 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>---------------ANS

55. which type of annotation applies to bean property setter methods

a)@Requires

b)@Resource

c)@Required----------------ANS

d)@Requiring

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

True----------Ans

False

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

a)oldgen

b)younggen

c)Middlegen----------------ANS

d) Mediumgen

58. 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----------Ans

59. What types of views supported by spring MVCfor different presentation technologies

a)JSP

b)HTML

c)velocity templates

d) select all -----------------ANS

60. Spring is a heavy weight framework

True

False----------Ans

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

a)PLSQL

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

c)SQL

d)RDBMS

62. 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--------ANS

b.I and III

c.I and II

d.II and III

63.You would need one session factory obj per database using a seperate config file.

True

False

64. which is used to start the validator in spring mvc validator ?

65. which elements not supported by hql?

A.sub

B.where,

C.having

D.select

66. 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;

67. does sessionLocaleResolver interceptor detects if a special parameter is present in current Http req?

No….ANS

69.j2ee integration with hibernate is very difficult.

true/false

70.what is true abt 'clean' maven life cycle ?

It cleans up artifacts created by prior builds.

java based config option disables u to write most of ua spring config without xml but with help of few java based annotations . true/false?

71. named queries are created cia which level of annotations on entities ?

optn : high level, all level, class level, low level

what are features of xml <context: namespace?

xml schema based config is introduced in which version of spring 2.0

how many bean scopes are specified in singleton by default? 6

17) which of the following interpret user input and transform it into a model that is represented to the user by the view..

optns: controllers, none, webapplicationcontext, dispacther servlet

18)tags generated by form tag lib are compliant with xhtml-1.0 strict specification and attendant.

true/false

1. archetype is a maven plugin whose task is to create a project structure as per its template(t/f) true

2. how do u provide configuration metadata to spring container?

a.xml based config fle----ans

b.annotation based config-----ans

c.java based config-----ans

3. spring applications is tightly coupled because of dependency injection(t/f)

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

a.all-level

b.high-level

c.low

d.class level

5. in spring bean configurations, bean attribute called 'scope' defines what kind of object has to be created and returned

what returns a new bean instance each time when requested?

a. request

b.prototype------ans

c.global session

d.singleton

6. the view interface inhabits the preparation of the request and hands the request over to one of the view technologies(t/f)

7. how many bean scopes are specified in singleton by default

a.6

b.7

c.5

d.none

8. xml schema based configuration is introduced in which version of spring –(2/2.5/3/none)-------2

9. the test module supports the testing of spring components with junit for testing(t/f)

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

a.browser-ans

b.http

c.database

d.application

11. 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------ans

d.none

12. spring can organize which type of objects?

a.application later

b.database layer

c.network

d.browser

13. Which is not a module in spring framework? (ORM/DAO/MVC/none)----DAO

14. hibernate is an open orm tool for java(t/f)-----true

15. Properties of HQL

16.View Resolver

17. No.of layers in hibernate architecture-4

18. J2EE integrated with Hibernate is very difficult (T\F)-False

19. XML based on expression and it is used extensively in conjuction with in XSLT ?

a.XPath parser b.JDOM c.SAX d.StAX------xpath server

20. Is it difficuit to inject dependency inject (Ioc) by construction (T/f)

1. Bean post processor is a concrete class

true

false

Ans - false

2.The Spring MVC pattern does not separate the different aspects of the application into input logic, business logic, and UI logic.

true

false

ans:false

3.use of addclass function

it is used to convert java class name into file name

with the file name, input stream, reader will be processed

using add class, other classes will be used efficiently.

4.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

Ans:all the above

5. 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

Ans:The p namespace has to be declared

6.which is correct?

Hibernate is a object oriented query language

It is database independent

it supports pagination

HQL statements will be converted to SQL or other language the database supports

Ans:all the above

7. What statement is correct in live environment? Select a unique answer.

1. Constuctor 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. All of the above

Ans: all the above

8. 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

Ans:The execution of all public method in class belonging to the default java package.

9. 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

Ans: 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.

10.What an interceptors do?

11.Types of autoproxing?

BeanNameAutoProxyCreator

DefaultAdvisorAutoProxyCreator

Ans: Both

12.Which scope is a single bean definition to have any number of object instances - prototype-----Ans

13.Modules of web flow:

14.core components in spring

ANS: @Component, @Repository, @Service and @Controller annotations

15.which of the following is an invalid annotation?

@RequestParam

@PAthValid

@Responsevalid

@RequestMapping

Ans- @Responsevalid

16.Which of the following is true regarding prototype:

scope is a single bean definition to have any number of object instances

it is the default scope in standard web applications

the instances will be created for each bean dependency

Ans: scope is a single bean definition to have any number of object instances

the instances will be created for each bean dependency

17.which annotation is used in setter?

@Response

@Request

@Required

Ans: @Required

18.Which of the following handles all the HTTP requests and response?

Ans: Dispatcher Servlet

19.Cache enables the database to hit as much as possible for better performance in critical applications.

true

False

Ans- true

20.View Resolver provides a mapping between view names and actual views.

true

false

Ans:True

21.What is a view resolver?

class

interface

object

argument

Ans:Interface

22.Model is used to encapsulate the response data

true

false

Ans - true

23.which one interpret user input and transform it into a model that is represented to the user by the view.

controller

dispatcher servlet

model

browser

AnS: controller

24.Which one runs advice before and after the advised method is invoked.

after

before

around

none of the above

Ans:around

25.Integration of J2EE with hibernate is difficult.

True

False

Ans- false

26.Application contexts can publish events to beans that are registered as listeners.

true

false

ans: true

27.which is not used as java annotation

@component

@bean

@configuration

none

Ans:none

28.which mapping is given in hibernate in common?

object

relational

class

column

Ans-object/relational

29.In which level, sql query is integrated in HQL?

class level

low level

high level

object level

ans-object level

30.Hibernate supports query cache

true

false

Ans - true

31.What are the mapping associations used in hibernate?

One-to-One Association

Many-to-One Association

One-to-Many Association

Many-to-Many Association

ans: One-to-One Association

Many-to-Many Association

32.What are the different fetching strategies in hibernate?

1. Join Fetching

2. Batch Fetching

3. Select Fetching

4. Sub-select Fetching

Ans: all

33.Hibernate helps in mapping of java objects with database tables

true

false

ans:true

34.In which way, the properties of one bean is used by number of beans?

inheritance

dependency injection

through child bean

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 - Primary Key

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

Q1 9 - A Session is used to get a physical connection with a database.

**A - true**

B - false

Q 20 - 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 21 - 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 22 - 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 23 - 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 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.

Q 26 - 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.**

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.createSQLQuery 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

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, IocContextFactory

C - BeanFactory, BeanContext, IocContextFactory

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 meas 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 - PostgresSql

**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 lit, 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) 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 intances can be created fora global session : **one**

11)what display 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 availble in HQL?(question is not clear)

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.

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

**C - Both of the above.-----ANS**

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 parses 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 congfiguration 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 auto wiring 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

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(Not clear)

38)[xml]

<id name="deptId" type="string">

<column name="columnid" length="30"/>

<generatoers/>

<id/>

[/xml]

The above is an example of creatinf 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

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 seperate three modules like presentation layer,bussiness layer and data access layer

State True or False

a). TRUE

**b). FALSE-------ANS**

50) pick odd one out in the following annotations

**I.@PathValid**

**II.@responsevalid**

III.@Controller

IV.@requestmapping

51)lenth returns number of rows in a column for only string type

State True or False

a). TRUE

b). FALSE

52)which level cache implements a cache for query resultsets

a.Third level cache

**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

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(question not clear)

bundling

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 pracice?

I.Exit controller has to define in web.xml

II.bean definition

III.open the server and deploy the project

IV.@controller usage

59.Constructor injection is didfficult to inject

State True or False

a). TRUE

**b). FALSE**

60.index and type can be used in the constrictor-arg at the same time?

State True or False

a). TRUE

b). FALSE

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>

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)URl 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 seperate 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**

b.I and II-----ANS

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.Collecion 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

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 mappping exceeds 25 different databse 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

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

**Ans:Introduction**

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

**ans:b. The second declared bean JpaDao is missing an id must be named jpaDao**

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

**ans: 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 seperate which of the following?

a.Presentation

b.Tools

c.Data Access

**d.Bussiness Logic**

10.We can use index and type attribute together

State true or **False.**

11.which of the following is Hibernate?

a.Lightweight

b.Open Source

c.ORM

d.All of the listed

**Ans:d**

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:I 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 parses in xml based on expression and its used extensively in conjuction with XLST?

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.

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.--=-**- may be false**

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

**Ans:A**

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

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.

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 aquery in sql usig createSQLQuery()

3Hibernate 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 retrive

objects from a database?

a.PLSQL

b.RDBMS

c.SQL

**d.HQL**

**Ans: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 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">

<colum 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**.

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 7 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.

**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

**Ans:org.springframework.web.servlet.DispatcherServlet**

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

**Ans: WebSocket, 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 atribute 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 seperate 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)**

Ans: b,c,d

49.What statement is not correct in live environment? Select a unique answer.

1. Constuctor 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**

**Ans:5**

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.

**Ans:d**

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

**Ans:d**

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

**Ans:d**

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

**Ans:1&2**

57.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.

**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

**Ans:FileSystemXmlApplicationContext,ClassPathXmlApplicationContext,**

**WebXmlApplicationContext**

59.It is difficult to inject the dependency by constructor. state true or **False.**

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

state true or **False.**