



Exam : 310-091

Title : Sun Certified Bus. Component Developer
java EE Platform 5

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QUESTION 1

Which is a valid Post Construct method in a message-driven bean class?

- A. @Post Construct
public boolean init() { return true; }
- B. @Post Construct
private static void init() {}
- C. @Post Construct
private void init() {}
- D. @Post Construct
public static void init() {}

Answer: C

QUESTION 2

Given:

- 11. Entity public class X {
- 12. @Id int id;
- 13. Y y,
- 14. }

A public class Y with NO Java Persistence annotations is defined in the same package.

Which statement is correct about these classes if NO other annotations and mapping descriptors are provided?

- A. Class Y must be serializable.
- B. Class Y must be marked as an entity.
- C. The entity X is not defined correctly. The field y must be marked as @Lob.
- D. Class Y must be accessed by a persistence application through a public interface.

Answer: A

QUESTION 3

A developer is working on a user registration application using EJB 3.0. A business method register User in stateless session bean RegistrationBean performs the user registration. The register User method executes in a transaction context started by the client. If some invalid user data causes the registration to fail, the client invokes register user again with corrected data using the same transaction. Which design can meet this requirement?

- A. Have register User method call EJBContext.setRollbackOnly() method after registration fails.
- B. Have register User method throw javax.ejb.EJBTransactionRequiredException after registration fails.
- C. Have register User method throw EJBException without marking the transaction for rollback, after registration fails.
- D. Create an application exception with the rollback attribute set to false and have register User method throw it after registration fails.

Answer: D

QUESTION 4

Which two class types must be implicitly or explicitly denoted in the persistence.xml descriptor as managed persistence classes to be included within a persistence unit? (Choose two.)

- A. Entity classes
- B. Interceptor classes
- C. Embedded classes
- D. Entity listener classes

Answer: A, C

QUESTION 5

Which statement about the combination of mapping defaults, annotations, and XML descriptors is correct?

- A. All mapping annotations must always be processed by the persistence provider.
- B. Some annotations, like the @Entity annotation, must always be processed by the persistence provider.
- C. The mapping information for an entity class specified by annotations and in XML descriptors must be distinct.
- D. If multiple entity listeners are defined, the order in which they are invoked can be defined or overwritten in the XML descriptor.

Answer: D

QUESTION 6

Which statement about an entity instance lifecycle is correct?

- A. A new entity instance is an instance with a fully populated state.
- B. A detached entity instance is an instance with no persistent identity.
- C. A removed entity instance is NOT associated with a persistence context.
- D. A managed entity instance is the instance associated with a persistence context.

Answer: D

QUESTION 7

A developer implements a session bean with a method doStuff which behaves differently depending on the caller's security role. Only users in security roles "ADMIN" and "USER" are allowed to call the method. Assume that there is no security-related metadata in the deployment descriptor. Which two, taken in combination, are appropriate to accomplish this? (Choose two.)

- A. Annotate method doStuff with @PermitAll.
- B. Annotate method doStuff with @RolesAllowed({"ADMIN","USER"})

C. If `EjbContext.getCallerPrincipal` returns role "ADMIN", implement the behavior for users in role ADMIN.

D. If `EJBContext.isCallerInRole("ADMIN")` returns true, implement the behavior defined for users in role "ADMIN".

Answer: B, D

QUESTION 8

A developer wants to create a portable EJB 3.0 application that includes the following class definition for the Entity Account

```
11. @Entity
12. @EntityListeners(com.acme.AlertMonitor.class)
13. public class Account {
14. // more code here
15. @PrePersist
16. protected void validatecreate() { /* more code here */ }
17. }
```

Which statement is correct?

A. The `validateCreate` method may NOT throw runtime exceptions.

B. The `validateCreate` method can invoke the `EntityManager.flush` operation.

C. Methods of the class `com.acme.AlertMonitor` annotated with callback annotations must take an Object or Account instance as the only argument.

D. The above class definition is NOT correct. An entity cannot define a callback method like `PrePersist` and use the `EntityListeners` annotation at the same time.

Answer: C

QUESTION 9

Given:

```
11. @PersistenceContext EntityManager em;
12. public boolean test(Order o){
13. boolean b = false;
14. o = em.merge(o);
15. em.remove(o);
16. o = em.merge(o);
17. b = em.contains(o);
18. return b;
19. }
```

Which statement is correct?

A. The method will return TRUE.

B. The method will return FALSE.

C. The method will throw an exception.

D. The Order instance will be removed from the database.

Answer: C

QUESTION 10

The deployment descriptor for a stateless session bean that uses the `isCallerInRole` method reads as follows:

3. `<security-role-ref>`
4. `<role-name>manager</role-name>`
5. `<role-link>humanresources</role-link>`
6. `<security-role-ref>`
16. `<security-role>`
17. `<description>`
18. Is allowed to view and update all employee records.
19. `</description>`
20. `<role-name>humanresources</role-name>`
21. `</security-role>`

Which two roles are responsible for creating this deployment descriptor? (Choose two.)

- A. Deployer
- B. Bean Provider
- C. System Administrator
- D. Application Assembler

Answer: B, D

QUESTION 11

Given two entities with a many-to-many bidirectional association between them:

```
11 @Entity public class Employee {  
12. Collection projects;  
13. // more code here  
14. }  
and
```

```
11. @Entity public class Project{  
12. Set<Employee> emps;  
13. // more code here  
14. }
```

What set of annotations correctly defines the association?

- A. `@ManyToMany` on the `projects` field,
`@ManyToMany(mappedBy="projects")` on the `emps` field
- B. `@ManyToMany(mappedBy="emps")` on the `projects` field,
`@ManyToMany` on the `emps` field
- C. `@ManyToMany(targetEntity=Project.class)` on the `projects` field,
`@ManyToMany(mappedBy="projects")` on the `emps` field
- D. `@ManyToMany(targetEntity=Project.class)` on the `projects` field,
`ManyToMany` on the `emps` field

Answer: C

QUESTION 12

Given code snippets from two files:

```
7. public class Dog {  
8.     public void onMessage(Message m) { System.out.print('1'); }  
9. }  
and  
10. @MessageDriven  
11. class MessageDog extends Dog implements MessageDrivenBean {  
12.     MessageDog(Message m) { System.out.print("2"); }  
13. }
```

Which four code changes, when used together, create a valid JMS message-driven bean?
(Choose four.)

- A. Make class MessageDog public.
- B. Make the MessageDog constructor no-arg.
- C. Make the MessageDog constructor public.
- D. Move the onMessage method to class MessageDog.
- E. Change MessageDog so that it is NOT a subclass of Dog.
- F. Make class MessageDog implement MessageListener instead of MessageDrivenBean.

Answer: A, B, C, F

QUESTION 13

Which statement about entity manager is true?

- A. A container-managed entity manager must be a JTA entity manager.
- B. An entity manager injected into session beans can use either JTA or resource-local transaction control.
- C. An entity manager created by calling the EntityManagerFactory.createEntityManager method always uses JTA transaction control.
- D. An entity manager obtained through resource injection in a stateful session bean can use a resource-local EntityTransaction for transaction control.

Answer: A

QUESTION 14

Which two options can be used to predefine Java Persistence queries for easy use? (Choose two.)

- A. @NamedQuery annotation
- B. @NamedNativeQuery annotation
- C. using the named-query element in the XML descriptor
- D. using the named-native-query element in the XML descriptor

Answer: A, C

QUESTION 15

Given a set of CMT bean methods with the following transaction attributes:

Method M1 =SUPPORTS

Method M2=REQUIRED

Method M3=NOT SUPPORTED

Method M4=REQUIRES_NEW

And the following method invocation sequence:

Method M1 invokes Method M2

Method M2 invokes Method M3

Method M1 invokes Method M4

If Method M1 is invoked by a method that does NOT have a transaction context, which describes a possible scenario?

A. Method M1: no transaction

Method M2: new transaction

Method M3: no transaction

Method M4: new transaction

B. Method M1: no transaction Method M2:

Container throws EJBTransactionRequiredException

C. Method M1: new transaction

Method M2: runs in same transaction as M1

Method M3: Container throws TransactionNotSupportedException

D. Method M1: no transaction Method M2: new transaction

Method M3: Container throws TransactionNotSupportedException

Answer: A

QUESTION 16

A developer wants to create a Java Persistence query that returns valid U.S. phone numbers (formatted as "123-456-7890" or "800-RUN-EJB3") from a collection of differently formatted international phone numbers. The developer needs only those numbers that begin with 303.

Which WHERE clause is correct?

A. WHERE addr.phone LIKE '303_'

B. WHERE addr.phone LIKE '303%'

C. WHERE addr.phone LIKE '303-_-_'

D. WHERE addr.phone LIKE '303-%-%'

E. WHERE addr.phone LIKE '303--'

F. WHERE addr.phone LIKE '303-%%-%%%'

Answer: E

QUESTION 17

A developer is working on a project that includes both EJB 2.1 and EJB 3.0 session beans. A lot of business logic has been implemented and tested in these EJB 2.1 session beans. Some EJB 3.0 session beans need to access this business logic.

Which design approach can achieve this requirement?

- A. Add adapted home interfaces to EJB 3.0 session beans to make EJB 3.0 and EJB 2.1 session beans interoperable.
- B. Add EJB 3.0 business interfaces to existing EJB 2.1 session beans and inject references to these business interfaces into EJB 3.0 session beans.
- C. No need to modify existing EJB 2.1 session beans. Use the @EJB annotation to inject a reference to the EJB 2.1 home interface into the EJB 3.0 bean class.
- D. No need to modify existing EJB 2.1 session beans. Use the @EJB annotation to inject a reference to the EJB 2.1 component interface into the EJB 3.0 bean class.

Answer: C

QUESTION 18

A developer is modifying an existing Java EE application that uses the JDBC API to access a database. This code must be used but cannot be changed, and new code needs to be added that uses the Java Persistence API.

Both parts of the code will execute in the same JTA transaction.

Which method of the EntityManager interface should the new code use to ensure that the data read by JDBC statements includes the state of managed entities?

- A. Call refresh on each changed entity.
- B. Call flush at the end of each business method.
- C. Call find before accessing any managed entity.
- D. Call lock at the beginning of each business method.

Answer: B

QUESTION 19

A developer wants to achieve the following two behaviors for an EJB 3.0 session bean:

- (1) If the client calls a business method with a transaction context, the container will invoke the enterprise bean's method in the client's transaction context.
- (2) If the client calls a business method without a transaction context, the container will throw the javax.ejb.EJBTransactionRequiredException.

Which transaction attribute should be used?

- A. REQUIRED
- B. SUPPORTS
- C. MANDATORY
- D. REQUIRES_NEW
- E. NOT_SUPPORTED

Answer: C

QUESTION 20

Given a stateless session bean with container-managed transaction demarcation, from which two methods can a developer access another enterprise bean? (Choose two.)

- A. bean constructor
- B. Timeout callback method
- C. PreDestroy lifecycle callback method
- D. PostConstruct lifecycle callback method
- E. business method from the business interface

Answer: B, E

QUESTION 21

Which two are programming restrictions in the EJB 3.0 specification? (Choose two.)

- A. An enterprise bean must NOT attempt to load a native library.
- B. An enterprise bean must NOT declare static fields as final.
- C. An enterprise bean must NOT attempt to create a new security manager.
- D. An enterprise bean must NOT propagate a RuntimeException to the container.
- E. An enterprise bean must NOT attempt to obtain a javax.naming.InitialContext.

Answer: A, C

QUESTION 22

The Java Persistence API defines a notion of propagation of a persistence context. Which statement is correct?

- A. Persistence context propagation is NOT supported for message-driven beans.
- B. Persistence context propagation is supported for any type of an entity manager.
- C. Persistence context propagation avoids the need for the application to pass references of entity manager instances.
- D. Persistence context propagation results in cloning of all managed instances for use by another instance of an entity manager.

Answer: C

QUESTION 23

Given the following statements about an EJB deployment descriptor for which the metadatacomplete attribute is not specified:

- I. The EJB deployment descriptor can provide additional metadata to bean class annotations.
- II. The EJB deployment descriptor can partially override bean class annotations.
- III. The EJB deployment descriptor can entirely override bean class annotations.

Which is true?

- A. Only statement I is correct.
- B. Only statement II is correct.
- C. Only statement III is correct.
- D. Both statements I and II are correct.
- E. Both statements I and III are correct.

Answer: D

QUESTION 24

Which Java Persistence query uses the aggregate function correctly, assuming that chairs field is of type int?

- A. `SELECT ANY(r.chairs) FROM Room r`
- B. `SELECT NEW Integer(MAX(r.chairs)) FROM Room r`
- C. `SELECT r FROM Room r WHERE r.chairs > AVG(r.chairs)`
- D. `SELECT c FROM Chair c WHERE LOCATE (c.type, 'lazyboy') > -1`

Answer: B

QUESTION 25

A business method of a stateless session bean with a transaction attribute **REQUIRED** executes a Java Persistence query on a container-managed persistence context.

Under which two conditions can the developer expect the persistence provider to ensure that all changes made to the persistence context in the transaction are visible to the processing of the query? (Choose two.)

- A. The flush mode is NOT explicitly set.
- B. The flush mode on the Query object is set to **COMMIT**.
- C. The refresh method on the EntityManager is called.
- D. The flush mode on the persistence context is set to **AUTO** but is NOT specified for the Query object.

Answer: A, D

QUESTION 26

A session bean calls the `setRollbackOnly` method on the `EJBContext` interface within a business method with an active transaction. Which two are correct? (Choose two.)

- A. The transaction timeout is immediately disabled.
- B. The container will ensure that the transaction will never commit.
- C. The bean must have started the current transaction for this to be legal.
- D. The bean must have bean-managed transaction demarcation for this to be legal.
- E. The bean must have container-managed transaction demarcation for this to be legal.

Answer: B, E

QUESTION 27

Given:

5. public interface MrB1 {

6. public interface MrB2 {

A java class is defined as:

11 . @Stateless

12. public class MrBean implements MrB1 ,MrB2

Which two statements are correct for making this code work as a stateless session bean, considering that this session bean is NOT defined in a deployment descriptor and the interfaces do NOT have annotations? (Choose two.)

- A. Only the interface for remote usage must be annotated.
- B. The interfaces MrB1 and MrB2 can only be used locally without changing the code.
- C. Both interfaces MrB1 and MrB2 must be annotated to make this a working stateless session bean.
- D. The interfaces MrB1 and MrB2 can be annotated differently, one with @Local and the other with @Remote.

Answer: C, D

QUESTION 28

A developer wants to write a stateful session bean using the following interface as local business interface:

- 1. package acme;
- 2. public interface Bar {
- 3. public void bar();
- 4. }

Assuming there is NOT an ejb-jar.xml file, which code can be inserted into Lines 4-6 below to define the bean with the ejb name of BarBean?

- 1. package acme;
- 2. import javax.ejb.*;
- 3. import java.io.*;
- 4.
- 5.
- 6.
- 7. }

- A. @Stateful
public class BarEJB implements Bar {
public void bar() {}
- B. @Stateful(name="Bar")
public class BarBean implements Bar {
public void bar() {}
- C. @Stateful
public class BarBean implements Serializable, Bar {

```
public void bar() {}  
D. @Stateful(name="Bar")  
public class BarBean implements Bar {  
public void bar() throws java.rmi.RemoteException {}
```

Answer: C

QUESTION 29

Given the following client-side code that makes use of the session bean Foo:

```
10. @EJB Foo bean1;  
11. @EJB Foo bean2;  
//more code here  
20. boolean test1 = bean1.equals(bean1);  
21. boolean test2 = bean1.equals(bean2);  
Which two statements are true? (Choose two.)
```

- A. If Foo is stateful, test1 is true, and test2 is true.
- B. If Foo is stateful, test1 is true, and test2 is false.
- C. If Foo is stateless, test1 is true, and test2 is true.
- D. If Foo is stateful, test1 is false, and test2 is false.
- E. If Foo is stateless, test1 is true, and test2 is false.
- F. If Foo is stateless, test1 is false, and test2 is false.

Answer: B, C

QUESTION 30

A developer writes an interceptor class called Foo Interceptor containing the following AroundInvoke method:

```
11 . @AroundInvoke  
12. public Object intercept(InvocationContext ctx) {  
13. return "intercepted";  
14. }
```

FoolInterceptor is applied to a business method in a stateless session bean:

```
11. @Interceptors(FoolInterceptor.class)  
12. public String testzero(int i) {  
13. return (i == 0)? "zero": "not zero";  
14. }
```

Which describes the result when a client invokes the testzero method with a value of 1?

- A. The intercept method is NEVER invoked.
- B. The client receives a return value of "zero".
- C. The client receives a return value of "not zero".
- D. The client receives a return value of "intercepted".

Answer: D

QUESTION 31

Which three statements are true about EJB 3.0 containers? (Choose three.)

- A. Remote argument passing semantics conform to Java RMI-IIOP.
- B. The JAXB 2.0 API is guaranteed to be available for all bean types.
- C. The Java 2D API is guaranteed to be available for session beans.
- D. javax.naming.InitialContext is guaranteed to provide a JNDI name space.
- E. The Java Telephony API is guaranteed to be available for session and message beans.
- F. javax.transaction.UserTransaction cannot be used by beans when bean-managed transaction demarcation is used.

Answer: A, B, D

QUESTION 32

Which statement is true about the Timer service in an EJB 3.0 stateless session bean?

- A. The timeout callback method contains the business logic that handles the timeout event.
- B. The timeout callback method must be declared as a business method in business interfaces.
- C. The timeout callback method can throw application exceptions to report business logic failures.
- D. A bean class can implement multiple timeout callback methods, each associated with a different timer.

Answer: A

QUESTION 33

A developer writes a stateful session bean called FooBean.

Which code can be inserted before Line 11 of the FooBean class to define a TYPE-level environment dependency on a JMS Topic?

```
11. public class FooBean {  
12.  
13. public void foo() {}  
14.  
15. }
```

- A. @Resource(type=Topic.class)
- B. @Resource(name="topicRef")
private static Topic topic;
- C. @Resource private Topic topic;
- D. @Resource(name="topicRef", type=Topic.class)

Answer: D

QUESTION 34

Which two statements are true? (Choose two.)

- A. All types of enterprise beans can be transaction-aware.
- B. Typically, fine-grained objects, such as an employee record, should be remotely accessible.
- C. The client view of any given enterprise bean will be consistent across all EJB 3.0 containers without the need to recompile the bean.
- D. As long as a given enterprise bean is NOT recompiled, its security attributes are guaranteed to be consistent across all EJB 3.0 containers in which it is deployed.

Answer: A, C

QUESTION 35

Bean A is using bean-managed transaction demarcation and has invoked the too method of bean

B. When the too method returns, bean A needs to determine if the transaction has been set to rollback. Which must be true?

- A. It is NOT possible for bean A to determine if the transaction has been set to rollback.
- B. Bean A must invoke the getStatus method on the User Transaction that it began.
- C. For this to be possible, bean B must also use bean-managed transaction demarcation.
- D. Bean A must invoke the setRollbackOnly method on the User Transaction that it began.
- E. Bean A must invoke the getRollbackOnly method on the User Transaction that it began.

Answer: B

QUESTION 36

Which statement describes a component definition that is allowed by the EJB 3.0 specification?

- A. A stateful session bean that is a Web service endpoint.
- B. A stateful session bean that has one remote business interface and is a Web service endpoint.
- C. A message-driven bean that has one message listener interface and is a Web service endpoint.
- D. A stateless session bean that has three local business interfaces and is a Web service endpoint.

Answer: D

QUESTION 37

FooBean and BarBean are both EJB 3.0 stateless session beans with container-managed transaction demarcation. All business methods in the two beans have transaction attribute REQUIRED. The business method foo in FooBean invokes the business method bar in BarBean. Given:

```
10. public class BarBean {  
11.     public void bar() {  
12.         throw new EJBException("unexpected error..")  
13.     }  
14. }
```

Which statement is true about the result of this method invocation assuming execution reaches Line 12?

- A. The container might roll back the transaction.
- B. The BarBean bean instance is in the ready state for the next invocation.
- C. FooBean.foo method receives javax.ejb.EJBTransactionRolledbackException.
- D. FooBean.foo method receives javax.transaction.InvalidTransactionException.

Answer: C

QUESTION 38

Which two statements are correct? (Choose two.)

- A. An EJB 3.0 message-driven bean can itself be the client of another message-driven bean.
- B. The client of an EJB 3.0 message-driven bean can use the bean's remote business interface to communicate with the bean.
- C. Every client of an EJB 3.0 JMS message-driven bean must be a Java application that uses the JMS API to communicate with the bean.
- D. Messages sent to JMS topics are intended for only one receiver whereas messages sent to JMS queues are intended for multiple receivers.
- E. If the client of an EJB 3.0 message-driven bean awaits a reply to its request, the client can set the JMSReplyTo attribute to provide routing information to the bean.

Answer: A, E

QUESTION 39

The Java Persistent API defines certain rules for persistent entities. These rules are required by the persistent provider to manage entities at runtime. Which statement is correct, assuming NO mapping descriptor is used?

- A. Entities must extend a persistent base class.
- B. Entities must implement the interface PersistentEntity to be managed by the persistent provider.
- C. A field without a transient modifier must be annotated as @Persistent to be stored in the database.
- D. A field without a transient modifier must be annotated as @Transient to NOT be stored in the database.

Answer: D

QUESTION 40

A developer wants to implement an association relationship between Car Model and Car Manufacturer. Every car model is produced by a single manufacturer and every manufacturer produces many car models. While in this application it is essential to quickly determine the manufacturer of a model it is NOT necessary to determine which models a manufacturer produces. Given these requirements, which is an appropriate solution?

- A. In Car Model class, declare an attribute of type Car Manufacturer and annotate it with

OneToMany.

B. In Car Model class, declare an attribute of type Car Manufacturer and annotate it with ManyToOne.

C. In Car Manufacturer class, declare an attribute of type Car Model and annotate it with OneToMany.

D. In Car Manufacturer class, declare an attribute of type Collection<Car Model> and annotate it with @OneToMany.

E. In Car Model class, declare an attribute of type Collection<Car Manufacturer> and annotate it with @ManyToOne.

Answer: B

QUESTION 41

Which statement is true about both stateful session beans and stateless session beans?

A. Bean instances are NOT required to survive container crashes.

B. Any bean instance must be able to handle concurrent invocations from different threads.

C. A bean with bean-managed transactions must commit or roll back any transaction before returning from a business method.

D. The container passivates and activates them using methods annotated with @PrePassivate and @PostActivate annotations.

Answer: A

QUESTION 42

Which method always throws an exception when invoked on a container-managed entity manager?

A. the lock method

B. the close method

C. the flush method

D. the clear method

Answer: B

QUESTION 43

An enterprise bean has security permissions set up using declarative security features. Under which two conditions can a client be guaranteed to have permission to invoke a business method on the enterprise bean? (Choose two.)

A. The Application Assembler has marked the enterprise bean method as unchecked.

B. The client's principal has been assigned a security role with permission to invoke the method.

C. The Application Assembler has set the security-identity deployment descriptor to run-as.

D. The Application Assembler has mapped all security role references using the role-link element.

Answer: A, B

QUESTION 44

A developer wants to perform programmatic access control inside EJB 3.0 session beans. This is needed because some permissions can be determined only at application runtime. Which method achieves this goal?

- A. `javax.ejb.EJBContext.getRollbackOnly()`
- B. `java.lang.SecurityManager.checkAccess(Thread t)`
- C. `javax.interceptor.InvocationContext.getTarget()`
- D. `javax.ejb.SessionContext.isCallerInRole(String roleName)`
- E. `javax.servlet.http.HttpServletRequest.getUserPrincipal()`

Answer: D

QUESTION 45

A Java Persistence application wants to use optimistic locking. Which statement that describes the functionality of optimistic locking is correct?

- A. The Version attribute of an entity using optimistic locking can be mapped to a secondary table.
- B. Optimistic locking can be used by Java Persistence applications to set optimistic locks on tables in the database.
- C. The Version attribute of an entity using optimistic locking is verified each time the instance is loaded from the database.
- D. Optimistic locking ensures that updates or deletes are consistent with the current state of the database and that intervening updates are not lost.

Answer: D

QUESTION 46

Consider a deep inheritance hierarchy consisting of Java Persistence entity classes, non-entities, and mapped super classes. Which statement is correct, assuming NO mapping descriptor is present?

- A. An entity class must NOT inherit from a non-entity class.
- B. An entity class must NOT be extended by a non-entity class.
- C. Only the root class in an inheritance hierarchy can be annotated with `@MappedSuperclass`.
- D. The primary key must either be defined in the topmost entity class of the inheritance hierarchy or it can be defined in a superclass if this class is annotated as `@MappedSuperclass`.

Answer: D

QUESTION 47

Which statement is true about the primary key of a Java Persistence entity?

- A. The primary key cannot be overridden by a mapping descriptor.
- B. The location of the primary key defines the topmost entity class in the hierarchy.
- C. If property-based access is used, the properties or the primary key class must be public or protected.
- D. At least part of a primary key must be defined in the class that is the topmost class of an entity which is defined by a hierarchy of classes.

Answer: C

QUESTION 48

The ejb-jar file format is a contract between which two EJB role pairs? (Choose two.)

- A. Deployer and System Administrator
- B. Application Assembler and Deployer
- C. Bean Provider and Application Assembler
- D. Bean Provider and EJB Container Provider
- E. EJB Server Provider and EJB Container Provider
- F. Application Assembler and EJB Container Provider

Answer: B, C

QUESTION 49

Which two can be specified by both the Bean Provider and the Application Assembler? (Choose two.)

- A. security roles
- B. enterprise bean type
- C. transaction attributes
- D. session bean's state-management type
- E. enterprise bean's remote home interface
- F. enterprise bean's local business interface

Answer: A, C

QUESTION 50

A session bean's business method throws an exception during execution. Which two are responsibilities of the Bean Provider when throwing the exception? (Choose two.)

- A. For application exceptions, ensure that if the current transaction commits there will be no loss of data integrity.
- B. For application exceptions, ensure that the current transaction will commit.
- C. For system errors, when the client is remote, throw a java.rmi.RemoteException that wraps the original exception.
- D. For checked exceptions from which the bean cannot recover, throw an EJBException that wraps the original exception.

Answer: A, D

QUESTION 51

Which is a correct way of defining a runtime exception as an EJB 3.0 application exception?

- A. public class MyAppException extends javax.ejb.EJBException
- B. @ApplicationException
public class MyAppException extends java.rmi.RemoteException
- C. public class MyAppException extends java.lang.RuntimeException
- D. @ApplicationException
public class MyAppException extends java.lang.RuntimeException

Answer: D

QUESTION 52

Which is a valid way of injecting a container-managed transaction-scoped persistence context into an EJB 3.0 session bean assuming the application contains only one persistence unit?

- A. @PersistenceUnit
public EntityManager em;
- B. @PersistenceContext
private EntityManager em;
- C. @TransactionManagement(TransactionManagementType.CONTAINER)
public EntityManager em;
- D. @Resource(name="persistence/em", authenticationType=AuthenticationType.CONTAINER)
protected EntityManager em;

Answer: B

QUESTION 53

Place the EJB 3.0 JMS Message-Driven Bean class code snippets on their corresponding locations.

10. <input type="text" value="place here"/>	
11. public class BookingProcessorBean	<input type="text" value="place here"/>
12. <input type="text" value="place here"/>	
13. // more code here...	
30. }	
31. }	
<input type="text" value="@Stateless"/>	<input type="text" value="public void onMessage(Message message) {"/>
<input type="text" value="@MessageDriven"/>	<input type="text" value="public static void onMessage(Message message) {"/>
<input type="text" value="@MDB"/>	<input type="text" value="public Message processMessage(Message message) {"/>
<input type="text" value="implements MessageDrivenBean {"/>	
<input type="text" value="implements BookingProcessorRemote {"/>	
<input type="text" value="implements MessageListener {"/>	
	<input type="button" value="Done"/>

Answer:

```

10. @Stateless
11. public class BookingProcessorBean @MDB
12. implements MessageListener {
13.     // more code here...
30. }
31. }

```

Done

QUESTION 54

A Department entity is in a one-to-many relationship with an Employee entity. A developer has been asked to write a Java Persistence query to update the set of employees who are in the department 'HR' by setting their department to null.

Construct a query using the Java Persistence query language to perform this task.

Syntax Fragments

SET	e.department.name	('HR')
WHERE	e.department	= null
Employee e	UPDATE	IN

Constructed Query

place here	place here	place here
place here	place here	place here
place here	place here	place here

Answer:

Syntax Fragments

SET	e.department.name	('HR')
WHERE	e.department	= null
Employee e	UPDATE	IN

Constructed Query

SET	e.department	('HR')
= null	Employee e	e.department.name
UPDATE	WHERE	IN

QUESTION 55

A developer implemented a Java class called Store. The class is annotated correctly to act as an entity. The developer created a stateless session bean to create, lookup, and remove Store objects. This session bean has a container-managed entity manager injected into field em and a removeStore method with transaction attribute REQUIRED.

Given the following code:

```
32. public void removeStore(Store store) {
33. em.remove(store);
34. }
```

What is a possible reason that an IllegalArgumentException is thrown at Line 33 when the removeStore method is called by a remote client?

- A. The passed object is NOT serializable.
- B. The passed object is NOT found in the database.
- C. The passed object is NOT managed by the entity manager.
- D. There is no active transaction to manage the database removal.

Answer: C

QUESTION 56

A developer is implementing a message-listener method of an EJB 3.0 message-driven bean. The developer wants to make sure that the message receipt is immediately rolled back in case the message listener method is aborted with a runtime exception. Which option can the developer use?

- A. Use Container-Managed Transactions with transaction attribute REQUIRED.
- B. Use Container-Managed Transactions with transaction attribute NOT_SUPPORTED.
- C. Use Bean-Managed Transactions and the JMS API for message acknowledgement.
- D. Use Bean-Managed Transactions and write a try-catch-finally block that calls UserTransaction.rollback in case of a RuntimeException.

Answer: A

QUESTION 57

A developer creates a stateful session bean that is used by many concurrent clients. The clients are written by other development teams and it is assumed that these clients might not remove the bean when ending their session. The number of concurrent sessions will be greater than the defined bean cache size. The developer must consider that the state of the session bean can be influenced by either passivation or timeout. Which three actions should the developer take to make the bean behave correctly in passivation and timeout situations? (Choose three.)

- A. Release references to resources in a @Remove annotated method.
- B. Re-establish references to resources in an @Init annotated method.
- C. Release references to resources in a @PreDestroy annotated method.
- D. Release references to resources in a @PrePassivate annotated method.
- E. Re-establish references to resources in a @PostActivate annotated method.

Answer: C, D, E

QUESTION 58

A Reader entity has a one-to-many, bidirectional relationship with a Book entity. Two Reader entities are persisted, each having two Book entities associated with them. For example, reader 1 has book a and book b, while reader 2 has bookc and bookd. Which query returns a Collection of fewer than four elements?

- A. SELECT b.reader FROM Book b
- B. SELECT r FROM Book b INNER JOIN b.reader r
- C. SELECT r FROM Reader r INNER JOIN r.books b
- D. SELECT r from Book b LEFT JOIN b.reader r LEFT JOIN FETCH r.books

Answer: C

QUESTION 59

Given:

- 10. @Stateless
- 11 @RunAs("X")
- 12. public class SecureBean01 implements Secure01 {
- 13. @EJB Secure02 secure02;
- 23. @RolesAllowed("A")
- 24. public void methodA() {
- 25. secure02.methodB();
- 26. }
- 10. @Stateless
- 11. public void SecureBean02 implements Secure02 {
- 23. @RolesAllowed("A")
- 24. public void methodB()

A user who is only in role A invokes Secure01.method

A. Assuming NO other security-related metadata, what is the expected result?

- A. An exception is thrown at Line 25.
- B. An exception is thrown at Line 13.
- C. method A cannot be invoked by this user.
- D. The code executes without raising an exception.

Answer: A

QUESTION 60

Given the following stateful session bean:

- 10. @Stateful
- 11. @TransactionAttribute(TransactionAttributeType.SUPPORTS)
- 12. public class VideoBean implements Video {
- 13. //insert code here
- 14. public void methodA() { }
- 15. }

Assuming no other transaction-related metadata, which code can be added at Line 13 to guarantee that business method methodA will execute only if invoked with an active transaction?

- A. @TransactionAttribute()
- B. @TransactionManagement(TransactionAttributeType.CONTAINER)
- C. @TransactionAttribute(TransactionAttributeType.MANDATORY)
- D. @TransactionAttribute(TransactionAttributeType.REQUIRES_NEW)

Answer: C

QUESTION 61

Given:

- 1. public class MyException extends Exception { }
- The remote business interface Foo declares a method work():

- 5. public void work() throws MyException;

The bean class FooBean contains the following:

- 10. @Stateless
- 11. @Remote(Foo.class)
- 12. public class FooBean{
- 13. public void work() throws MyException {
- 14. throw new MyException();
- 15. }

Which exception can be received in the client as a result of invoking the work method?

- A. a MyException
- B. a javax.ejb.ConcurrentAccessException
- C. a javax.ejb.EJBException that wraps an instance of MyException as the root cause

D. a java.rmi.RemoteException that wraps an instance of MyException as the root cause

Answer: A

QUESTION 62

A developer wants to release resources within a stateless session bean class. The cleanup method should be executed by the container before an instance of the class is removed. The deployment descriptor is NOT used. Which three statements are correct? (Choose three.)

- A. The cleanup method may declare checked exceptions.
- B. The cleanup method must have no arguments and return void.
- C. The cleanup method is executed in an unspecified transaction and security context.
- D. The developer should mark the cleanup method with the PreDestroy annotation.
- E. The developer should mark the cleanup method with the PostDestroy annotation.
- F. The cleanup method is executed in the transaction and security context of the last business method invocation.

Answer: B, C, D

QUESTION 63

A developer wants to create a JMS message-driven bean that responds to javax.jms.TextMessage messages. Which two statements are true? (Choose two.)

- A. The developer must implement the ejbCreate method.
- B. The developer does NOT need to create a business interface for the bean.
- C. The developer must implement a method that declares javax.jms.TextMessage as an argument.
- D. The message-driven bean class must implement methods of the javax.jms.MessageListener interface
- E. The message-driven bean class must implement methods of the javax.ejb.MessageDrivenBean interface.

Answer: B, D

QUESTION 64

A Java Persistence application uses the EntityManager.flush method to synchronize the current persistence context with the database. Which two statements are correct? (Choose two.)

- A. The flush method might cause the persist operation to be cascaded to related entities.
- B. Extensive use of the flush method decreases the performance of a Java Persistence application.
- C. The flush method should be used to synchronize the current persistence context with modifications made in other transactions.
- D. The flush method should be used to publish changes done in the current persistence context to other transactions before actual transaction commit.

Answer: A, B

QUESTION 65

Your application uses the Java Persistence API to access a database. This application must reject adding an instance to the database if it does NOT pass validation tests for values of two persistence properties. The database contains some data that will NOT pass such validation. Only the new records must be validated. Which option will achieve this behavior?

- A. Add validation logic to the setter methods for each property.
- B. Add the PrePersist callback method with all of the validation logic.
- C. Add the PostPersist callback method with all of the validation logic.
- D. Add PrePersist and PreUpdate callback methods with all of the validation logic.

Answer: B

QUESTION 66

Given an EJB 3.0 JMS message-driven bean, which statement is true about its exception handling?

- A. Its message listener method must NOT throw any checked exception.
- B. Its message listener method can throw `java.rmi.RemoteException`.
- C. Its message listener method can throw any checked exception except `java.rmi.RemoteException`.
- D. Its message listener method can throw any checked exception that implements `java.io.Serializable`.

Answer: A

QUESTION 67

FooBean is an EJB 3.0 session bean that can make valid use of `UserTransaction`. Which is guaranteed to work in an EJB container for FooBean to obtain the `UserTransaction` object?

- A. Invoke a method on a `SessionContext` `Transaction` object.
- B. Perform JNDI lookup with name `"java:/UserTransaction"` on an `InitialContext`.
- C. Perform JNDI lookup with the name `"jdbc/UserTransaction"` on an `InitialContext`.
- D. Use the `TransactionManagement` annotation to inject an instance variable of type `UserTransaction` in a bean class.

Answer: A

QUESTION 68

A developer creates a stateless session bean, `EmployeeServiceBean`, and its interface, `EmployeeService`. The session bean uses two annotated entity classes, `Employee.class` and `Department.class`. Which two packaging options can the developer use when creating a deployable EAR? The proposed directory structure is listed for each option. (Choose two.)

A. emp.ear
emp-ejb.jar
META-INF/persistence.xml
EmployeeService.class
EmployeeServiceBean.class
lib/emp-classes.jar
Employee.class
Department.class
B. emp.ear
META-INF/orm.xml
emp-ejb.jar
EmployeeService.class
EmployeeServiceBean.class
Employee.class
Department.class
C. emp.ear
emp-ejb.jar
META-INF/persistence.xml
Employee.class
Department.class
EmployeeService.class
EmployeeServiceBean.class
D. emp.ear
emp-ejb.jar
persistence.xml
Employee.class
Department.class
EmployeeService.class
EmployeeServiceBean.class

Answer: A, C

QUESTION 69

A developer writes an enterprise application and packages it into an enterprise archive (EAR). The application contains one persistence unit with unit name "FooPU". The application also contains an ejb-jar with one stateless session bean. Which code, when added to the stateless session bean class, injects a container-managed persistence context at runtime?

A. @PersistenceContext
EntityManager em;
B. @Resource(unitName="FooPU")
EntityManager em;
C. @PersistenceUnit(unitName="FooPU")
EntityManager em;
D. @PersistenceContext(unitName="persistence/FooPU")

EntityManager em;

Answer: A

QUESTION 70

The Java Persistence API defines the Query interface. Which two statements about the Query.executeUpdate method are true? (Choose two.)

- A. It must always be executed within a transaction.
- B. It throws a PersistenceException if no entities were updated.
- C. It throws an IllegalStateException if called on a Query instance created with a Java Persistence SELECT query.
- D. All managed entity objects corresponding to database rows affected by the update will have their state changed to correspond with the update.

Answer: A, C

QUESTION 71

A developer obtains a java.security.Principal object by calling the SessionContext.getCallerPrincipal method from within a business method of a session bean. Which statement is true?

- A. The returned Principal object can be null.
- B. The roles which the Principal is in can be determined from this Principal object.
- C. The return value of Principal.getName depends on the security realm which was used to authenticate the caller.
- D. The return value of the Principal.getName method is exactly the same as the username used for authentication of the caller.

Answer: C

QUESTION 72

The bean class of an EJB Web service endpoint has one method annotated with @WebMethod. Which two types can be legally returned from that method? (Choose two.)

- A. java.util.Date
- B. javax.ejb.Timer
- C. an array of java.lang.String
- D. an EJB 3.0 local business interface reference
- E. an EJB 3.0 remote business interface reference

Answer: A, C

QUESTION 73

A Java EE 5 Application server has four different security realms for user management. One of the security realms is custom made. This realm supports only individual user entries, no grouping

of users, and is used by the application. Which two statements are true? (Choose two.)

- A. EJA developers cannot use the `isCallerInRole` method.
- B. The annotation `@RunAs("AAA")` can still be used for this application.
- C. All security roles need a role-link entry in the deployment descriptor.
- D. All security roles can be mapped successfully to individual users in the realm.

Answer: B, D

QUESTION 74

A developer wants to create a business interface for both local and remote usage. For performance reasons the remote interface should NOT be called by a client in the same JVM. Which statement is required to accomplish this, assuming there is no deployment descriptor?

- A. The business methods are defined in one interface which must be annotated with both `@Local` and `@Remote`.
- B. The business methods are defined twice in one interface. One method is annotated with `@Local` and the other is annotated with `@Remote`.
- C. The business methods are defined in a common interface by two other interfaces which are annotated with `@Local` and `@Remote` respectively. The bean implements the super interface.
- D. The business methods are defined in a common interface. It is extended by two interfaces, annotated with `@Local` and `@Remote` respectively. Both interfaces are implemented by the bean class.

Answer: D

QUESTION 75

Given this Java EE application that uses a JTA application-managed entity manager:

```
20. UserTransaction utx = ...;  
21. utx.begin();  
22. //insert code here  
23. utx.commit();
```

Which two code fragments can be used on Line 22 to persist an order instance assuming that all references are property initialized? (Choose two.)

- A. `em.merge(order);`
`em.flush();`
- B. `em.persist(order);`
`em.flush();`
- C. `em.joinTransaction();`
`em.persist(order);`
- D. `em = emf.createEntityManager();`
`em.persist(order);`

Answer: C, D

QUESTION 76

Consider the following classes:

- 11. @Entity Auction
- 12. @Id int id;
- 13. @OneToOne Item item;
- 14. }
- 11. @Entity Item {
- 12. @Id int id;
- 13. @OneToOne (mappedBy="item") Auction auction;
- 14. }

Given that the Auction entity maps to an AUCTION database table and the Item entity maps to an ITEM database table, which statement is correct assuming there is NO mapping descriptor?

- A. The relationship is mapped to a foreign key in the ITEM table.
- B. The relationship is mapped using a join table AUCTION_ITEM.
- C. The relationship is mapped to a foreign key in the AUCTION table.
- D. The relationship is mapped to foreign keys in both ITEM and AUCTION tables.

Answer: C

QUESTION 77

Which two APIs must an EJB 3.0 container make available to enterprise beans at runtime?
(Choose two.)

- A. The JXTA 1.1 API
- B. The MIDP 2.0 API
- C. The Java SE 6 API
- D. The Java SE 5 JNDI API
- E. The Java SF 5 JDBC API

Answer: D, E

QUESTION 78

Which component can use a container-managed entity manager with an extended persistence context?

- A. any EJB component
- B. only stateful session beans
- C. only stateless session beans
- D. session beans and web components

Answer: B

QUESTION 79

A developer writes a session bean which uses several configurable constants. The constants are all defined as String types in JNDI. This cannot be changed because existing code is using the

same JNDI information. One of the constants is a date, represented in string format. This date constant is used in multiple business methods of this session bean, actually as a Date object. Converting strings to dates is an expensive operation: therefore, the developer wants to do as little converting as possible.

Which two scenarios can be used to prevent converting from String to Date in every business method? (Choose two,)

- A. Load the date string in an instance Date type variable by annotation of the instance variable and let the container auto convert it to a Date type automatically.
- B. Load the date string in an instance String type variable by annotation of this instance variable and convert it to a Date type object in the beans constructor.
- C. Load the date string in an instance String type variable by annotation of this instance variable and convert it to a Date type object in a @PostConstruct annotated method.
- D. Load the date string in an instance Date type variable by annotation of a setter method that takes a String and which carries out the conversion and assigns the value to the instance variable.

Answer: C, D

QUESTION 80

Which two are restrictions of beans with bean-managed transactions? (Choose two.)

- A. The NOT_SUPPORTED transaction attribute must be chosen.
- B. Clients calling with a transactional context are prohibited and will result in an exception.
- C. A stateful session bean must commit a started transaction before a business method returns.
- D. A bean that starts a transaction must complete the transaction before it starts a new transaction.
- E. A message-driven bean instance must commit a transaction before the onMessage method returns.

Answer: D, E

QUESTION 81

The syntax of the ORDER BY clause is defined in the Java Persistence API as:

orderby_clause ::= ORDER BY orderby_item {, orderby_item}*

Which statement is correct about the use of ORDER BY clauses?

- A. Only literals can be specified as an orderby_item.
- B. Fields or properties of any type can be specified as an orderby_item.
- C. The ordering must be specified if two or more orderby_item methods are provided.
- D. If two orderby_item methods are provided the left orderby_item has the higher precedence.

Answer: D

QUESTION 82

A developer is declaring a persistent entity that will be passed as a detached object through a

remote interface to an application client. Which two characteristics must the corresponding persistent entity class have? (Choose two.)

- A. implement serializable
- B. include a no-arg constructor
- C. make instance variables public
- D. implement the remote interface

Answer: A, B

QUESTION 83

Given the following entity class:

- 11. @Entity public class Customer {
- 12. @Id private int id;
- 13. private transient String name;
- 14. private java.math.BigDecimal grossAmount;
- 15. }

Which mapping annotation can be added to the fields of this entity?

- A. @Column to the name field
- B. @Embedded Id to the id field
- C. @Basic to the gross Amount field
- D. @JoinColumns to the gross Amount field

Answer: C

QUESTION 84

A developer is writing client code for an EJB 3.0 message-driven bean that is listening on a JMS queue. Which statement is true?

- A. The transaction context of the client is propagated to the bean.
- B. If the bean instance crashes the client will need to resend all pending requests.
- C. The client can call the bean method annotated with @Remove to remove the message-driven bean instance.
- D. Requests sent by the client while the EJB server is down are processed by the bean after restarting the server.

Answer: D

QUESTION 85

A developer creates the following session bean:

- 10. @Stateless
- 11. @RolesAllowed("SECRET")
- 12. public class MyBean implements Myinterface
- 13. public void methodA() { }
- 14. @PermitAll

- 15. public void methods() {}
 - 16. @DenyAll
 - 17. public void methodC() {}
 - 18. } No deployment descriptor is supplied.
- Which two statements are true? (Choose two.)

- A. A user in the role "SECRET" will be able to access all of the methods.
- B. A user in the role "FOO" will be able to access method A and methodB.
- C. A user without any role will be able to access methodB but NOT methodA.
- D. A user in the role "SECRET" will be able to access methodA and methods.
- E. A user in the role "SYSADM" will be able to access methodA, methods, and methodC.

Answer: C, D

QUESTION 86

A developer implements a system in which transfers of goods are monitored. Each transfer needs a unique ID for tracking purposes. The unique ID is generated by an existing system which is also used by other applications. For performance reasons, the transaction that gets the unique ID should be as short as possible. The scenario is implemented in four steps which are implemented in four business methods in a CMT session bean:

- 1 .checkGoods Checks goods in a database
- 2.getUniqueld Retrieve the unique ID
- 3.checkAmount Checks the amount in a non-transactional system
- 4.storeTransfer Stores the transfer in a database as part of the calling transaction.

These methods are called by the addTransfer method of a second CMT session bean in the following order:

checkGoods, getUniqueld, checkAmount, storeTransfer

Assuming no other transaction-related metadata, which is the correct set of transaction attributes for the methods in the session beans?

- A. 0.addTransfer REQUIRED
- 1.checkGoods REQUIRED
- 2.getUniqueld REQUIRES_NEW
- 3.checkAmountsNOT_SUPPORTED
- 4.storeTransferMANDATORY
- B. 0.addTransfer REQUIRED
- 1.checkGoods REQUIRED
- 2.getUniqueId REQUIRED
- 3.checkAmounts REQUIRED
- 4.storeTransfer REQUIRED
- C. 0.addTransfer REQUIRED
- 1.checkGoods REQUIRED
- 2.getUniqueId REQUIRES_NEW
- 3.check Amounts NEVER
- 4.storeTransferMANDATORY
- D. 0.addTransferNOT_SUPPORTED

- 1.checkGoods REQUIRED
- 2 .getUniqueId REQUIRED
- 3 .checkmountsNOT_SUPPORTED
- 4.storeTransferMANDATORY

Answer: A

QUESTION 87

A developer writes a stateful session bean with local business interface Bar containing method test. Method test is implemented as:

- 11. @Remove
- 12. public void test() { }

A business method in a stateless session bean invokes a reference to bean Bar as follows:

- 11. @EJB Bar bar;
- 12.
- 13. public void foo() {
- 14. bar.test();
- 15. bar.test();
- 16. }

Assuming execution reaches Line 15, what is the expected result?

- A. Method foo returns without error.
- B. A javax.ejb.NoSuchEJBException is thrown.
- C. A java.rmi.NoSuchObjectException is thrown.
- D. A javax.ejb.NoSuchEntityException is thrown.

Answer: B

QUESTION 88

A developer has obtained a container-managed entity manager in a stateless session bean. Which two statements are correct? (Choose two.)

- A. Invoking the flush method without a transaction will throw an exception.
- B. Invoking the clear method without a transaction will throw an exception.
- C. Invoking the persist method without a transaction will throw an exception.
- D. Invoking the find method for an entity that does NOT exist will throw an exception.

Answer: A, C

QUESTION 89

The Java Persistence entity LineItem defines a composite primary key that is defined by the two columns ORDERID and LINEITEMID in the database. Which two are true? (Choose two.)

- A. LineItem must define a primary key class to represent the composite primary key.
- B. The composite primary key is mapped as two fields in LineItem. No extra primary key class is necessary.

- C. The combination of @Embedded and @Embeddable annotations can be used to denote the composite primary key.
- D. The semantics of the equals and hashCode methods of the primary key class must be consistent with the database equality.

Answer: A, D

QUESTION 90

Which two annotations can be applied at the class, method, and field levels? (Choose two.)

- A. @EJB
- B. @Init
- C. @Resource
- D. @RolesAllowed
- E. @PostActivate

Answer: A, C

QUESTION 91

A User entity is in a one-to-many relationship with a Book entity. Assume that a developer has a function fetchBook(String title) that fetches a Book entity with the given title title. Also assume that the developer has an entity manager em. Which query can be used to return the user that holds the book titled "Java"?

- A. em.createQuery("SELECT u FROM User u where :great IN u.books.title").setParameter("great","Java")
- B. em.createQuery("SELECT u FROM User u where :great IN u.books").setParameter("great",fetchBook("Java"))
- C. em.createQuery("SELECT u FROM User u where great MEMBER OF u.books.title").setParameter("great","Java")
- D. em.createQuery("SELECT u FROM User u where :great MEMBER OF u.books").setParameter("great",fetchBook("Java"))

Answer: D

QUESTION 92

A developer writes client code that runs in a Java EE container and accesses an EJB 3.0 stateful session bean. Which three statements are correct? (Choose three.)

- A. The client can obtain a reference to the bean's business interface through JNDI lookups.
- B. The client can obtain a reference to the bean's business interface through dependency injection.
- C. If the client calls a business method after the bean instance has been removed an exception will occur.
- D. After obtaining a reference to the bean's business interface, the client must call the create method before it may call business methods.

E. After the bean instance has been passivated, the client needs to re-obtain a reference to the bean's business interface to activate the bean instance.

Answer: A, B, C

QUESTION 93

A User entity is in a one-to-many relationship with a Book entity. In other words, a developer can reach the collection of books that a User instance myUser has by using the path expression "myUser.books". A developer wants to write a Java Persistence query that returns all users that have only two books. Which two are valid queries that return this information? (Choose two.)

- A. `SELECT u FROM User u WHERE SIZE(u.books) = 2`
- B. `SELECT u FROM User u WHERE COUNT(u.books) = 2`
- C. `SELECT u FROM User u WHERE (SELECT COUNT(LJ) FROM u.books b) = 2`
- D. `SELECT u FROM User u WHERE (SELECT SIZE(b) FROM u.books b) = 2`

Answer: A, C

QUESTION 94

A developer needs to deliver a large-scale enterprise application that connects to legacy systems. If the developer chooses an EJB 3.0-compliant application server, which three are true about the EJB business component tier? (Choose three.)

- A. Load-balancing is NOT a guarantee for all EJB 3.0 containers.
- B. Clustering is guaranteed to be supported by the EJB 3.0 container.
- C. Thread pooling can be optimized by the Bean Provider programmatically.
- D. Bean Providers are NOT required to write code for transaction demarcation.
- E. Support for server fail-over is guaranteed for an EJB 3.0-compliant application server.
- F. EJB 3.0-compliant components are guaranteed to work within any Java EE 5 application server.

Answer: A, D, F

QUESTION 95

Which statement is true about the EJB 3.0 stateful session bean?

- A. Its conversational state is retained across method invocations and transactions.
- B. Its conversational state is lost after passivation unless the bean class saves it to a database.
- C. Its interceptors and their instance field values are NOT part of the conversational state of the bean.
- D. Its conversational state is retained across method invocations but NOT across transaction boundaries.

Answer: A

QUESTION 96

A developer wants to create a Java Persistence query that restricts the results of an age-based query. Specifically, the developer wants to select everyone who is NOT a teenager. (A teenager is someone who is 13, 14, 15, 16, 17, 18, or 19 years old.) Which expression in the query's WHERE clause is correct?

- A. WHERE p.age NOT BETWEEN 12 and 20
- B. WHERE p.age NOT BETWEEN 13 and 20
- C. WHERE p.age NOT BETWEEN 12 and 19
- D. WHERE p.age NOT BETWEEN 13 and 19

Answer: D

QUESTION 97

A developer writes a stateless session bean with one local business interface and with containermanaged transactions. All business methods have transaction attribute REQUIRED. The bean has an injected field sessionCtx of the type SessionContext. Which two operations are allowed in a business method of the bean? (Choose two.)

- A. sessionCtx.getEJBObject
- B. sessionCtx.setRollbackOnly
- C. sessionCtx.getMessageContext
- D. sessionCtx.getBusinessObject
- E. sessionCtx.getEJBLocalObject

Answer: B, D

QUESTION 98

A developer implements a session bean which acts as a session facade for an application. This means that clients will only see this session bean's interface which offers the application interface. There are three distinct roles known at development time: "user", "admin", and "guest". The majority of the methods will be used by role "user". All methods must have role permissions active and roles may be added or changed in the future. Which two scenarios are correct? (Choose two.)

- A. The developer annotates the bean class with @PermitAll and annotates the methods used by role "guest" or "admin" individually.
- B. The developer annotates the bean class with DenyAll and annotates the methods used by role "user", "guest", or "admin" individually.
- C. The developer defines individual method permissions for the methods used by roles "user", "guest", and "admin" in the deployment descriptor.
- D. The developer annotates the bean class with @RolesAllowed("user") and annotates the methods used by role "guest" or "admin" individually.
- E. The developer defines a method permission with method name and role "user" and adds individual method permissions for the methods used by roles "guest" and "admin" in the deployment descriptor.

Answer: D, E

QUESTION 99

A developer wants to achieve the following two behaviors:

- (1) If a client calls a business method without a transaction context, the container will invoke the bean in an unspecified transaction context.
- (2) If a client calls a business method with a transaction context, the container will suspend the association of the transaction context with the current thread before invoking the enterprise bean's business method.

Which transaction attribute should be used?

- A. NEVER
- B. REQUIRED
- C. SUPPORTS
- D. NOT_SUPPORTED

Answer: D

QUESTION 100

Which four are defined in the EJB specification as a standard EJB role? (Choose four.)

- A. End Point Provider
- B. Persistence Provider
- C. Name Space Provider
- D. JSF Interface Provider
- E. Application Assembler
- F. EJB Container Provider
- G. Enterprise Bean Provider

Answer: B, E, F, G

QUESTION 101

Within a Java EE environment, which annotation can be used to inject an entity manager factory?

- A. @Entity
- B. @Factory
- C. @JTAFactors
- D. @PersistenceUnit
- E. @PersistenceContext

Answer: D

QUESTION 102

Given:

```
public class MyException extends Exception {}
```

The business interface Foo declares a method work():

1. public void work() throws MyException;

The bean class FooBean contains the following:

10. @Stateless

11. @Remote(Foo.class)

12. public class FooBean {

13. public void work() throws MyException {

14. //do some work not shown here

15. throw new MyException();

16. }

Assuming there is no deployment descriptor, which statement is true when the work() method is invoked by a client with an existing transaction context and execution reaches Line 15?

A. The container does not roll back the transaction.

B. The client receives javax.ejb.EJBTransactionRequiredException.

C. The client receives javax.ejb.EJBTransactionRolledbackException.

D. The container marks the transaction for rollback by calling the EJBContext.setRollbackOnly method.

Answer: A

QUESTION 103

A User entity is in a one-to-many relationship with a Book entity.

A developer writes a query to delete users that have a first name of 'Fred' or 'Ginger', and writes the following Java Persistence query language statement:

DELETE FROM User u WHERE u.name IN ('Fred', 'Ginger')

If the query fails with a PersistenceException, what can be the cause?

A. The syntax of the query is NOT correct.

B. The query causes a foreign key integrity constraint to be violated.

C. The database does NOT have any users with the name 'Fred' or 'Ginger'.

D. The entities corresponding to the users with the name 'Fred' or 'Ginger' are already being managed by the persistence context.

Answer: B

QUESTION 104

A stateful session bean contains a number of instance variables. The types of instance variables A and B are NOT serializable. Instance variable B is a complex type which is populated by many business calls, and can, therefore, NOT be refilled by the client without starting all over. A helper instance variable C is defined as having a Serializable type, and can hold all the information which is in variable B. For example, B is of type XML-DOM Tree and C of type String.

Which two solutions, when combined, maintain the state of the session bean over a passivation and activation by the container? (Choose two.)

A. The value of helper variable C is used to create the value of instance variable B in the beans

no-arg constructor.

B. The value of helper variable C is used to create the value or instance variable B in a @PostCreate annotated method.

C. The value of helper variable C is used to create the value of instance variable B in a @PostActivate annotated method.

D. Instance variable A must be made null and instance variable B must be converted to a Serializable type and assigned to another instance variable in a PreDestroy annotated method.

E. Instance variable A must be defined transient. Instance variable B must be converted to a Serializable type, set to null, and assigned to the instance variable C in a @PrePassivate annotated method.

Answer: C, E

QUESTION 105

A developer is designing a Java Persistence application that is mapped to a set of existing tables. This set includes table EMPLOYEE, DEPARTMENT, and PROJECT. Tables EMPLOYEE and DEPARTMENT do NOT define any foreign key constraints to table PROJECT. Table PROJECT defines foreign key constraints with references to tables EMPLOYEE and DEPARTMENT and an extra column called COST. The table EMPLOYEE is mapped to an entity Employee and the table DEPARTMENT to an entity Department.

How can the table PROJECT be mapped so the persistence application can be portable?

A. Such sets of tables cannot be mapped and keep the application portable.

B. Map the table PROJECT as a secondary table for either the Employee or Department entity.

C. Map the table PROJECT to bidirectional many-to-many relationships between the Employee and Department using a java.util.Map as the type of the field or property.

D. Map the table PROJECT to an entity Project with a field or property cost mapped to the column COST and one-to-many relationships to this entity in the Employee and the Department.

Answer: D

QUESTION 106

Which statement about message-driven beans is correct?

A. Each message-driven bean instance will be invoked only one thread at a time.

B. When dispatching messages to message bean instances the container must preserve the order in which messages arrive.

C. If a message-driven bean is associated with a JMS queue, each bean instance in the pool will receive each message sent to the queue.

D. If a message-driven bean is associated with a JMS durable subscription, each bean instance in the pool will receive each message sent to the durable subscription.

Answer: A

QUESTION 107

A developer's objective is to end the persistence context associated with an application-managed entity manager. Which statement is correct?

- A. Invoke the flush method of the entity manager.
- B. Invoke the close method of the entity manager.
- C. Invoke the clear method of the entity manager.
- D. Invoke the remove method of the entity manager.

Answer: B

QUESTION 108

Which two capabilities are legal for an enterprise bean? (Choose two.)

- A. being a socket client
- B. updating a static field
- C. starting a separate thread
- D. listening on a server socket
- E. interrupting all the threads in a thread group
- F. using the java.lang System .currentTimeMillis method

Answer: A, F

QUESTION 109

Given the following stateful session bean:

- 10. @Stateful
- 11. public class VideoBean implements Video {
- 12. public void methodA() {}
- 13.
- 14. @TransactionAttribute(TransactionAttributeType SUPPORTS)
- 15. public void methodB() {}
- 16.
- 17. public void methodC () {}
- 18. @TransactionAttribute(TransactionAttributeType REQUIRED)
- 19.
- 20. public void methodD() {}
- 21. }

Assuming no other transaction-related metadata, which is true?

- A. methodB and methodC have transaction attribute SUPPORTS, while methodD has transaction attribute REQUIRED.
- B. methodA and methodC have transaction attribute REQUIRES_NEW, while methodB has transaction attribute SUPPORTS.
- C. methodC, methodD, and methodA have transaction attribute REQUIRED, and methodB has transaction attribute SUPPORTS.
- D. methodB has transaction attribute SUPPORTS, methodD has transaction attribute

REQUIRED, and methodA and methodC have transaction attribute REQUIRES_NEW.

Answer: C

QUESTION 110

A Java Persistence application uses entities mapped to tables from two datasources in the same transaction. What statement is correct?

- A. This is NOT possible.
- B. The entities must be packaged into two persistence units.
- C. The entities can be packaged into a single persistence unit
- D. The entities must be packaged using two different persistence.xml files.

Answer: B

QUESTION 111

A Deployer is given the following session bean:

- 10. @Stateless
- 11. @RolesAllowed("BATH")
- 12. @DeclareRoles("SOAP")
- 13. public class ShowerBean implements Shower {
- 14. public void plug() { }
- 15. }

and the following associated excerpt from the ejb-jar.xml descriptor file:

- 20. <assembly-descriptor>
- 21. <security-role>
- 22. <role-name>TOWEL</role-name>
- 23. </security-role>
- 24. </assembly-descriptor>

Which roles is the Deployer expected to map to users or user groups?

- A. TOWEL
- B. BATH and SOAP
- C. BATH and TOWEL
- D. BATH and SOAP and TOWEL

Answer: D

QUESTION 112

A Java EE 5 application contains a session bean which uses a security role USER. A group called people is defined in an LDAP server. Which two define appropriate EJB role responsibilities? (Choose two.)

- A. The Deployer defines and configures the LDAP realm.
- B. The system administrator defines and configures the LDAP realm.
- C. The Deployer maps the application role USER to the LDAP group people.

D. The system administrator maps the application role USER to the LDAP group people.

Answer: B, C

QUESTION 113

The Java Persistence API defines EntityTransaction interface. Which statement is correct?

- A. It is used to control transactions on JTA entity managers.
- B. It is used to control transactions on resource-local entity managers.
- C. All methods of this interface will throw IllegalStateException if a transaction is NOT active.
- D. Calling getTransaction method on a closed entity manager will throw an IllegalStateException.

Answer: B

QUESTION 114

Which statement is correct about a Java EE client of a message-driven bean?

- A. The client can use JNDI to obtain a reference to a message destination.
- B. The client can use JNDI to obtain a reference to a dependency injection.
- C. The client can use JNDI to obtain a reference to a message-driven bean instance.
- D. The client can use JNDI to look up a reference to the message-driven bean's home interface.

Answer: A

QUESTION 115

Which option will a developer use to obtain a MessageDrivenContext in a message-driven bean class written to the EJB 3.0 API?

- A. Implement the MessageDrivenBean interface.
- B. Specify MessageDrivenContext as a constructor parameter.
- C. Declare a dependency on the MessageDrivenContext interface.
- D. Specify MessageDrivenContext as a parameter of the onMessage method.

Answer: C

QUESTION 116

A developer writes a stateful session bean FooBarBean with two local business interfaces Foo and Bar. The developer wants to write a business method called getBar for interface Foo that returns a Bar reference to the same session bean identity on which the client invokes getBar. Which code, when inserted on Line 12 below, implements the getBar method with the wanted behavior?

```
10. @Resource SessionContext sessionCtx;  
11. public Bar getBar()  
12.  
13. }
```

- A. return (Bar) this;
- B. return (Bar) new FooBarBean();
- C. return (Bar) sessionCtx.lookup("FooBarBean")
- D. return (Bar) sessionCtx.getBusinessObject(Bar.class);
- E. InitialContext ic = new InitialContext();
return (Bar) ic.lookup("java:comp/env/ejb/FooBarBean");

Answer: D

QUESTION 117

A developer is creating a long-running Java Persistence reporting application that accesses a set of related entities. The application is NOT expected to add, change, or remove records in the database but the data can be changed by another application running on the same database. Which option will guarantee that the report does NOT contain stale data?

- A. Call the EntityManager flush API before preparing the report.
- B. Call the EntityManager createQuery API before preparing the report.
- C. Call the EntityManager clear API before accessing the fields or properties of the entities used in the report.
- D. Call the EntityManager refresh on each parent entity that is added to the report, and specify cascade=REFRESH on all corresponding relationships.

Answer: D

QUESTION 118

A developer examines a list of potential enterprise applications and selects the most appropriate technologies to use for each application. For which two applications is EJB 3.0 an appropriate solution? (Choose two.)

- A. to render a GUI for mobile clients
- B. as a container for web-tier components including JSP
- C. as a Web service endpoint accessed by non-Java clients
- D. to receive and respond to HTTP Post requests directly from a web browser
- E. as an online shopping cart which can persist across multiple sessions with a single client

Answer: C, E

QUESTION 119

You have been asked to develop business methods for an enterprise bean to fulfill the following objective:

If the JDBC connection is NOT available, the current state of the shopping cart session must be serialized.

A serialized state must be written to a text file using a java.io.PrintWriter.

Data must be shared with a Web services end point.

Logging information must be displayed in a javax.swing.JPanel component.

Which is true?

- A. The requirements can be fulfilled only in session beans.
- B. The requirements can be fulfilled only in message-driven beans.
- C. All of the requirements can be fulfilled using either session beans or message-driven beans.
- D. None of the requirements can be fulfilled using either session beans or message-driven beans.
- E. Both session beans and message-driven beans can fulfill some but not all of the requirements.

Answer: E

QUESTION 120

A developer creates a stateless session bean. This session bean needs data from a remote system. Reading this data takes a long time. Assume that the data will NOT change during the lifetime of the bean and that the information to connect to the remote system is defined in JNDI. Which statement describes how to manage the data correctly?

- A. Read the data in the bean's constructor.
- B. The data can only be read in the bean's business methods.
- C. Read the data in a method which is annotated with `@PrePassivate`.
- D. Read the data in a method which is annotated with `@PostActivate`.
- E. Read the data in a method which is annotated with `@PostConstruct`.

Answer: E

QUESTION 121

Given the following code snippet of an EJB 3.0 entity class:

- 10. `@Entity`
- 11. `@Table(name="ORDERS")`
- 12. `public class Order { }`

A developer wants to change the name of the database table for the Order entity from ORDERS to CUSTOM, without changing the Java source code file.

Which option can the developer use?

- A. Override the name using the table sub element within the persistence unit's persistence.xml file.
- B. This is NOT possible in a portable EJB 3.0 application. The only way to change the table name is to change the Java source code file.
- C. Add a custommapping.xml file to the persistence unit, override the name using the table sub element, and declare custommapping.xml in the mapping-file element in orm.xml.
- D. Add a custommapping.xml file to the persistence unit, override the name using the table sub element, and declare custommapping.xml in the mapping-file element in persistence.xml.

Answer: D

QUESTION 122

Given:

- 9. @Stateful
- 10. TransactionManagement(TransactionManagementType.BEAN)
- 11. public class FacadeBean implements Façade {
- 12. @EJB Business business; @Resource SessionContext ctx;
- 13. public void startstuff() throws Exception
- 14. ctx.getUserTransaction.begin();
- 15. business.doA();
- 16. business.doB();
- 17. }
- 18. public void endStuff() throws Exception {
- 19. ctx.getUserTransaction.commit();
- 11. @Stateless
- 12. public class BusinessBean implements Business {
- 13. @Resource SessionContext ctx;
- 14. public void doA() { ctx.setRollbackOnly(); }
- 15. @TransactionAttribute(TransactionAttributeType.REQUIRES_NEW)
- 16. public void doB() { }

A client calls startstuff and endstuff subsequently. Assuming NO other transaction-related metadata, which two statements are correct? (Choose two.)

- A. Method doB is never called.
- B. The transaction in method doB is committed.
- C. The transaction in method doB is rolled back.
- D. An exception is thrown when calling method endStuff.
- E. An exception is thrown when calling method startStuff.

Answer: B, D

QUESTION 123

Which example of Java Persistence identity definitions is portable and correct assuming NO mapping descriptor is present?

- A. @Entity public class A {
@Id private float id;
// more code here
}
- B. @IdClass(com.acme.LineItemPK.class)
@Entity
public class LineItem {
@Id int orderId;
@Id int lineItemId;
// more code here
}
- C. Entity public class Project {

```
@Id @GeneratedValue(strategy=TABLE)
public String getProjectId() {return pid;}
// more code here
}
D. Entity
public class Employee {
@Id public java.util.Date getBirthday() {return bday;}
// more code here
}
```

Answer: B

QUESTION 124

Given this code snippet from a JMS message-driven bean class X:

```
11. public X() { System.out.print("1"); }
12. public void onMessage(Message m) throws java.rmi.RemoteException {
13. try {
14. TextMessage tm = (TextMessage) m;
15. String text = tm.getText();
16. System.out.print("2");
17. } catch (JMSEException e) {
18. throw new java.rmi.RemoteException()
19. }
20. }
```

When this bean class handles a message, which is correct?

- A. After a message delivery the result is 1.
- B. After a message delivery the result is 2.
- C. After a message delivery the result is 1 2.
- D. After a message delivery an exception is thrown.
- E. After a message delivery the result is unpredictable.
- F. This is NOT an EJB 3.0 compliant bean.

Answer: F

QUESTION 125

Which two statements are true about EJB 3.0 session bean transaction management? (Choose two.)

- A. All session beans in the same ejb-jar must have the same transaction demarcation type.
- B. All session beans in the same enterprise application archive must have the same transaction demarcation type.
- C. Session beans with bean-managed transaction demarcation cannot participate in a two-phase commit procedure.
- D. Session beans with bean-managed transaction demarcation can use transactional resources managed by the container.

E. Session beans that invoke `javax.persistence.EntityManager` can use either container- managed transaction demarcation or bean-managed transaction demarcation.

Answer: D, E

QUESTION 126

A developer has created an application-managed entity manager. Which statement is correct?

- A. A new persistence context begins when the entity manager is created.
- B. A new persistence context begins when a new JTA transaction begins.
- C. A new persistence context begins when the entity manager is invoked in the context of a JTA transaction.
- D. A new persistence context begins when the entity manager is invoked in the context of a resource-local transaction.

Answer: A

QUESTION 127

The execution of the `find` method in the following code throws an exception:

- 11. `em.find(Customer.class, custId);`
- 12. `//Where em is a reference to a extended scoped entity manager.`

Which scenario can cause the exception?

- A. The `find` method was called without a transaction.
- B. The entity corresponding to the requested primary key has been removed.
- C. The entity corresponding to the requested primary key has been detached
- D. The data type of `custId` is NOT a valid type for the `Customer` entity primary key.

Answer: D

QUESTION 128

Which two statements are true about EJB 3.0 JMS message-driven beans? (Choose two.)

- A. The developer can use JMS message selector declarations to restrict the messages that the bean receives.
- B. The developer can associate the bean with a specific queue or topic using the `resource-ref` element of the deployment descriptor.
- C. To achieve concurrent processing of more than one message at a time, more than one bean class must be associated with the same JMS queue.
- D. The developer can use the `activationConfig` element of the `MessageDriven` annotation to specify whether the bean should be associated with a queue or a topic.

Answer: A, D

QUESTION 129

A developer is writing a stateless session bean that is obtaining a transaction-scoped entity

manager using injection and assumes the application defines one persistence unit. Which declaration is correct?

- A. @Resource EntityManager em;
- B. @PersistenceUnit EntityManager em;
- C. @PersistenceContext EntityManager em;
- D. @PersistenceUnit("TransactionScoped") EntityManager em;

Answer: C

QUESTION 130

An enterprise developer needs to modify the order of interceptor method execution specified by the Bean Provider, but does NOT have access to the bean's source code. No deployment descriptor was provided in the ejb-jar delivered by the Bean Provider. Which represents the solution to this problem?

- A. No solution is possible under these conditions.
- B. The Deployer can add metadata annotations to the ejb-jar.
- C. The Application Assembler can add metadata annotations to the ejb-jar.
- D. The System Administrator can add interceptor binding information at runtime, using vendor- specific tools.
- E. The Application Assembler can add a deployment descriptor to the ejb-jar that includes interceptor binding information.

Answer: E

QUESTION 131

A developer wants to implement a relationship between Company and Department entity classes. Every department belongs to one company, and one company has several departments. In this application it is essential to quickly determine which company a department belongs to and to also easily access all departments of a given company. Which two declarations provide a solution to these requirements? (Choose two.)

- A. In class Department:
@ManyToOne
private Company company;
- B. In class Department
@OneToMany
private Company company;
- C. In class Department:
@OneToMany(mappedBy="department")
private Collection<Company> companies;
- D. In class Company:
@ManyToOne(mappedBy="company")
private Collection<Department> departments;
- E. In class Company:
@OneToMany(mappedBy="company")

private Collection<Department> departments;

Answer: A, E

QUESTION 132

Which two are true about EJB 3.0 exception classes? (Choose two.)

- A. The javax.ejb.NoSuchEJBException is an application exception.
- B. The javax.ejb.EJBException extends java.lang.RuntimeException.
- C. The javax.ejb.EJBTransactionRequiredException is an application exception.
- D. An application exception must NOT be a subclass of java.rmi.RemoteException.
- E. The javax.ejb.EJBTransactionRolledbackException is an application exception.
- F. Any subclass of java.lang.RuntimeException is always considered a system exception.

Answer: B, D

QUESTION 133

Which statement about the JoinTable annotation is true?

- A. It must be applied to a unidirectional many-to-one association.
- B. It can be applied to the owning side of a many-to-many association.
- C. It must be applied to the owning side of a unidirectional one-to-many association.
- D. If the name attribute is not specified it is derived from the names of the primary keys of the two entities involved in the association.

Answer: B

QUESTION 134

A CMT session bean named MrBean contains a method storeStuff which is annotated as follows:

22. @TransactionAttribute(TransactionAttributeType.REQUIRES_NEW)

23. public void storeStuff()

All other methods of this bean have no transaction annotations.

Given the following part of an ejb-jar.xml:

23. <container-transaction>

24. <method>

25. <ejb-name>MrBean</ejb-name>

26. <method-name>*</method-name>

27. </method>

28. <transaction-attribute>NotSupported</transaction-attribute>

29. </container-transaction>

Which statement is correct about the methods in MrBean?

- A. All methods of MrBean have transaction attribute REQUIRED.
- B. All methods of MrBean have transaction attribute NOT_SUPPORTED.
- C. Method storeStuff has transaction attribute REQUIRES_NEW and the other methods have

transaction attribute REQUIRED.

D. Method storeStuff has transaction attribute NOT_SUPPORTED and the other methods have transaction attribute REQUIRED.

E. Method storeStuff has transaction attribute REQUIRES_NEW and the other methods have transaction attribute NOT_SUPPORTED.

Answer: B

QUESTION 135

Which two statements about the `EJBContext.isCallerInRole` method are correct? (Choose two.)

A. Message-driven beans must NOT call the `isCallerInRole` method.

B. The `isCallerInRole` method may be called in a session bean constructor.

C. The `isCallerInRole` method can be called in any business method of a stateless or a stateful session bean.

D. The `isCallerInRole` method can be called in the `PostConstruct` and `PreDestroy` lifecycle callback methods of a stateless session bean.

Answer: A, C

QUESTION 136

Java Persistence application uses a `Version` attribute to manage concurrent updates. Which is true?

A. The `Version` attribute must have a public access type.

B. The `Version` attribute is used by the persistence provider.

C. A separate `Version` attribute must be specified for each class in the inheritance hierarchy.

D. A separate `Version` column must be specified for each table mapped to the entity.

Answer: B

QUESTION 137

A developer is required to declare a persistent entity named `Truck` to map to a database table `VEHICLE`. Which entity class declaration is correct, assuming there is NO mapping descriptor?

A. 1. `@Entity(name="VEHICLE") public class Truck {`
2. `@Id int vehId;`
3. `double payload;`
4. `}`

B. 1. `@Entity(table="VEHICLE") public class Truck {`
2. `@Id int vehId;`
3. `double payLoad;`
4. `}`

C. 1. `@Embedded @Table("VEHICLE") public class Truck {`
2. `@Id int vehId;`
3. `double payload;`

4. }
D. 1. Entity @Table(name="VEHICLE") public class Truck {
2. @Id int vehld;
3. double payload;
4. }

Answer: D

QUESTION 138

Session bean A is a client of session bean B. Bean A is using container-managed transactions and Bean A invokes a business method of bean B. Under which two circumstances does bean A know for certain that continuing the transaction is fruitless? (Choose two.)

- A. Bean A receives an application exception.
- B. Bean A receives a java.rmi.RemoteException.
- C. Bean A's invocation of UserTransaction.getStatus returns false.
- D. Bean A's invocation of EJBContext.setRollbackOnly returns true.
- E. Bean A receives a javax.ejb.EJBTransactionRolledbackException.

Answer: D, E

QUESTION 139

EJB 3.0 containers must provide a specific subset of which two APIs? (Choose two.)

- A. JSP APIs
- B. JavaMail APIs
- C. JAX-WS APIs
- D. Java Card APIs
- E. Sun Studio APIs

Answer: B, C

QUESTION 140

Which two statements are correct about EJB 3.0 stateful session beans and stateless session beans? (Choose two.)

- A. Both can have multiple remote and local business interfaces.
- B. Both can be passivated by the EJB container to preserve resources.
- C. Both can choose to implement the javax.ejb.SessionSynchronization interface.
- D. Only the stateful session bean class is required to implement java.io.Serializable.
- E. Both bean classes can have the field injection of javax.persistence.EntityManager.

Answer: A, E

QUESTION 141

Which statement is true about the use of a persist operation in a transaction?

- A. If a user persists a detached object it always becomes managed.
- B. The persist operation on an entity always cascades to its related entities.
- C. If a user persists a new entity with an existing primary key the transaction will fail.
- D. If a user persists a managed entity an exception may be thrown by the persist operation.

Answer: C

QUESTION 142

A developer writes a stateless session bean FooBean with one remote business interface FooRemote containing one business method too. Method too takes a single parameter of application-defined type MyData.

```
11. public class MyData implements java.io.Serializable
12. int a;
13. }
```

Method foo is implemented within the FooBean class as:

```
11. public void foo(MyData data) {
12. data.a=2;
13. }
```

Another session bean within the same application has a reference to FooRemote in variable fooRef and calls method too with the following code:

```
11. MyData data = new MyData();
12. data.a=1;
13. fooRef.foo(data);
14. System.out.println(data.a);
```

What is the value of data.a when control reaches Line 14 of the client?

- A. 0
- B. 1
- C. 2
- D. either 1 or 2

Answer: B

QUESTION 143

Which statement about the @MappedSuperclass annotation is correct?

- A. A class annotated with @MappedSuperclass must be abstract.
- B. Subclasses of entity classes cannot be annotated with @MappedSuperclass.
- C. A class annotated with @MappedSuperclass has no separate table defined for it.
- D. A class annotated with @MappedSuperclass can be the target of queries like any other entity class.

Answer: C

QUESTION 144

XYZ Software develops business components using both the EJB 2.1 and EJB 3.0 APIs. Some customers are reluctant to completely migrate to the EJB 3.0 model, but are willing to have EJB 2.1 session beans invoke EJB 3.0 session beans. How should XYZ Software enhance these components to meet this customer requirement?

- A. Use @EJB to inject a reference to the EJB 3.0 business interface into the EJB 2.1 bean class.
- B. Use <ejb-ref> in ejb-jar.xml for the EJB 2.1 bean to declare a reference to the EJB 3.0 business interface.
- C. Add an EJB 3.0-style business interface to EJB 2.1 beans to achieve interoperability between EJB 2.1 and EJB 3.0 beans.
- D. Use @RemoteHome and @LocalHome to adapt EJB 3.0 beans so that EJB 2.1 beans can look up the adapted home interfaces using JNDI.

Answer: D

QUESTION 145

Which three roles will typically edit an ejb-jar? (Choose three.)

- A. Deployer
- B. EJB Server Provider
- C. Persistence Provider
- D. System Administrator
- E. Application Assembler
- F. Enterprise Bean Provider

Answer: A, E, F

QUESTION 146

A developer is working with an entity User, which has an identity field and a salary field. Which Java Persistence query will return those users with the highest salaries?

- A. SELECT u FROM User u WHERE u.salary >= ALL (SELECT d.salary FROM User d)
- B. SELECT u FROM User u WHERE u.salary >= ANY (SELECT d.salary FROM User d)
- C. SELECT u FROM User u WHERE ALL(u.salary>= (SELECT d.salary FROM User d))
- D. SELECT u FROM User u WHERE u.salary >= (SELECT ALL(d.salary) FROM User d)

Answer: A

QUESTION 147

Given:

A stateless session bean's business method invokes EJBContext.setRollbackOnly and receives an IllegalStateException.

Under which of these conditions could this be possible?

- A. The business method is marked with the MANDATORY transaction attribute.

- B. The business method is marked with the NOT_SUPPORTED transaction attribute.
- C. This is NOT possible; a stateless session bean cannot invoke EJBContext.setRollbackOnly.
- D. The bean has no metadata (in annotations or deployment descriptor) which specifies the transaction attribute for the method.

Answer: B

QUESTION 148

A Java Persistence application has been developed for a Java SE environment and the persistence xml file looks like this:

```
<persistence-unit name="OrderManagement"
transaction-type=RESOURCE_LDCAL>
<mapping-file>order-mappings.xml</mapping-file>
<class>com.acme.Order</class>
<class>com.acme.Customer</class>
<class>com.acme.Item</class>
<properties>
<property name="com.acme.persistence.monitoring" value="ON"/>
</properties>
</persistence-unit>
```

Now the developer wants to repackage it as a Java EE application and try it on several compliant Java EE 5 containers using injection to get an entity manager.

Which change is needed to make to the persistence.xml?

- A. Specify the JTA datasource.
- B. Remove the transaction type attribute.
- C. Remove the vendor-specific properties.
- D. Remove the list of all managed classes.

Answer: B

QUESTION 149

An Application Assembler is given the following stateless session bean:

- 10. @Stateless public class MyBean implements MyInt {
- 11. @RolesAllowed("SECRET")
- 12. public void methodA(int x) {}
- 13. public void methodA(String y) {}
- 14. public void methodB(String z) {}
- 15. }

A deployment descriptor is also supplied, a portion of which reads as follows:

- 20. <method-permission>
- 21. <role-name>AGENT</role-name>
- 22. <method>
- 23. <ejb-name>MyBean</ejb-name>
- 24. <method-name>methodA</method-name>
- 25. </method>

26. </method-permission>

Which statement is true?

- A. A client in any role will be able to access any of the methods.
- B. A client in the role "AGENT" will be able to access any of the methods.
- C. A client in the role "SECRET" will be able to access any of the methods.
- D. A client in the role "AGENT" will be able to access methodB and methodA(String), but not methodA(int).
- E. A client in the role "SECRET" will be able to access methodA(int) and methodB, but NOT methodA(String).

Answer: B

QUESTION 150

A developer writes an enterprise application and packages it into an ear file. The application contains two persistence units defined at the ear level with persistence unit names FooPU and BarPU. The application also contains an ejb-jar with one stateless session bean. Which code, when added to the stateless session bean class, injects an EntityManagerFactory at runtime?

- A. @PersistenceUnit
private EntityManagerFactory emf;
- B. @PersistenceContext
private EntityManagerFactory emf;
- C. @PersistenceUnit(unitName="BarPU")
private EntityManagerFactory emf;
- D. @Resource(name="BarPU", type=EntityManagerFactory.class)
private EntityManagerFactory emf;

Answer: C

QUESTION 151

Which two are true about specifying Java EE environment annotation metadata for session bean classes? (Choose two.)

- A. It is possible to inject a resource without using annotations.
- B. Only field-level annotations can be overridden by the deployment descriptor.
- C. Only type-level annotations can be overridden by the deployment descriptor.
- D. Resource annotations cannot be specified on a superclass of the session bean class.
- E. Type-level, method-level, and field-level annotations can all be overridden by the deployment descriptor.
- F. Only field-level annotations and method-level annotations can be overridden by the deployment descriptor.

Answer: A, E

QUESTION 152

Which statement is correct about the Java Persistence API support for the SQL queries?

- A. SQL queries are NOT allowed to use parameters.
- B. The result of an SQL query is not limited to entities.
- C. Only SELECT SQL queries are required to be supported.
- D. SQL queries are expected to be portable across databases.

Answer: B

QUESTION 153

A developer is writing implementation code for an EJB 3.0 message-driven bean class that processes booking requests. Within the business logic of the onMessage method, a temporary problem can occur. In that case the developer wants to make sure that the booking request is processed again in 30 minutes. Which two can the developer select? (Choose two.)

- A. Throw a runtime exception to roll back the transaction.
- B. Call setRollbackOnly on the MessageDrivenContext interface.
- C. Make use of the TimerService, and implement the TimedObject interface.
- D. Make use of the TimerService, implement a reprocess method, and annotate it with @Timeout.
- E. Throw an application exception, and add the retry-after attribute to the deployment descriptor.

Answer: C, D

QUESTION 154

A session bean's business method invokes UserTransaction.setRollbackOnly and receives an IllegalStateException. Under which circumstance can this happen?

- A. The bean is using bean-managed transactions regardless of whether there is an active transaction.
- B. There is no circumstance that would cause setRollbackOnly to throw an IllegalStateException.
- C. The bean is using bean-managed transaction demarcation, and UserTransaction.begin has NOT been invoked.
- D. The setRollbackOnly method is invoked within a bean-managed transaction, and UserTransaction.commit has NOT been invoked.

Answer: C

QUESTION 155

A developer maps the abstract entity class Account with concrete entity sub-classes CreditCardAccount and SavingsAccount using the single table per class hierarchy strategy. Which two statements are true? (Choose two.)

- A. Instances of CreditCardAccount and SavingsAccount are stored in the same table.
- B. All columns that correspond to fields declared in Account must be defined as nullable in the

database.

C. The fields declared in Account are stored in a different table than the ones declared in CreditCardAccount and SavingsAccount.

D. All columns that correspond to fields declared in CreditCardAccount or SavingsAccount must be defined as null able in the database.

Answer: A, D

QUESTION 156

Given the following code in an EJB 3.0 session bean:

10. @Resource(name="jdbc/employeeDB")

11. private DataSource dataSource;

12.

13. public void lookupEmployee(String id) {

14. InitialContext ic = new InitialContext();

15. //insert code here

16. DataSource ds = (DataSource) obj;

17. }

Which code, inserted at Line 15, portably looks up the injected resource?

A. Object obj = ic.lookup("employeeDB");

B. Object obj = ic.lookup("dataSource");

C. Object obj = ic.lookup("jdbc/employeeDB");

D. Object obj = ic.lookup("java:comp/env/employeeDB");

E. Object obj = ic.lookup("java:comp/env/jdbc/employeeDB");

Answer: E

QUESTION 157

Which must result in the destruction of a stateful session bean?

A. A client calls an @Remove method and the method returns successfully.

B. The server in which the stateful session bean was created is restarted.

C. The stateful session bean participates in a transaction that is rolled back.

D. The stateful session bean is chosen as a last recently used (LRU) victim for passivation.

Answer: A

QUESTION 158

A developer writes a stateless session bean with one local business interlace and with containermanaged transactions. All business methods have transaction attribute REQUIRED. The bean has an injected field sessionCtx of the type SessionContext. Which two operations are allowed in a business method of the bean? (Choose two.)

A. sessionCtx.getEJBObject

B. sessionCtx.setRollbackOnly

- C. sessionCtx.getMessageContext
- D. sessionCtx.getBusinessObject
- E. sessionCtx.getEJBLocalObject

Answer: B, D

QUESTION 159

Given the following code snippet from an EJB 3.0 entity class:

- 1. package com.foo;
- 2. // more code here...
- 10. @Entity
- 11. @Table(name="A")
- 12. public class Order {

And the following excerpt from the persistence unit's orm.xml mapping file:

- 10. <entity class="com.foo.Order" access="PROPERTY">
- 11. <table name="B"/>

What is the name of the database table for Order objects?

- A. A
- B. B
- C. A_B
- D. ORDER
- E. The result is unpredictable.

Answer: B

QUESTION 160

Which two are true about the Java EE 5 client-view of a message-driven bean? (Choose two.)

- A. References to message destinations can be injected.
- B. As of EJB 3.0, references to message destinations cannot be looked up in the clients JNDI namespace.
- C. Clients of a message destination need to know that the destination is listened to by a pool of message consumers.
- D. Clients of a message destination do NOT need to know that the destination is listened to by a message-driven bean.

Answer: A, D

QUESTION 161

OldBarBean is a stateless session bean written to the EJB 2.1 API with remote home interface. OldBarHome and remote component interlace OldBar. FooBean is a stateless session bean written to the EJB 3.0 API.

OldBarBean and FooBean are the only EJBs packaged in the ejb-jar. The FooBean portion of the ejb-jar.xml also declares an ejb-ref whose ejb-ref-name is ejb/oldBar. The ejb-ret is linked to OldBarBean. There are no other ejb dependencies defined.

A business method foo in FooBean needs to access OldBarBean.
Which is portable code to achieve this goal?

- A. @Remote
private OldBar oldBar;
- B. public void foo() {
try{
InitialContext ic = new InitialContext();
Object obj = ic.lookup("ejb/oldBar");
OldBarHome oldBarHome =
(OldBarHome) PortableRemoteObject.narrow(obj, OldBarHome.class);
OldBar oldBar = oldBarHome.create();
- C. @EJB private OldBarHome oldBarHome;
public void foo() {
try{
OldBar oldBar = oldBarHome.create();
- D. public void foo() {
try{
InitialContext ic = new InitialContext();
OldBarHome oldBarHome =
(OldBarHome) ic.lookup("ejb/oldBar");
OldBar oldBar = oldBarHome.create();

Answer: C

QUESTION 162

A developer writes a stateless session bean with a constructor, a PostConstruct method, a PreDestroy method, and this business method:

```
11. public String hello() {  
12. return "hello";  
13. }
```

The container invokes the hello method on an instance of the bean. Which is true about that bean instance when control reaches Line 12?

- A. The constructor has NOT been invoked.
- B. The PreDestroy method has been invoked.
- C. The PostConstruct method has been invoked.
- D. Both the PostConstruct and PreDestroy methods have been invoked.

Answer: C

QUESTION 163

According to the Java Persistence API, a managed entity instance X becomes removed by invoking the remove method on it or when it is a target of a cascaded remove operation. Which statement is true?

- A. After an entity has been removed its state will be restored to the Java defaults.
- B. If a detached entity Y references X the `IllegalStateException` will be thrown.
- C. If X is a new entity the remove operation is cascaded to entities referenced by K
- D. A removed entity X will be guaranteed to be removed from the database when the remove method returns.

Answer: C

QUESTION 164

Bean Provider has been asked to write a stateless session bean, `MyBean` with a single method `breakout`. A System Administrator guarantees that all client accessing the bean will be identified by mutual SSL authentication. The Bean Provider's task is to ensure that `breakout` always logs identity information of the client that invoked it. Which solution would satisfy this requirement?

- A. Access the identity information in the X.509 certificate used to authenticate the user from within `breakout`.
- B. Use the `getCallerPrincipal` method on an injected `SessionContext` to determine the required information.
- C. Use the `isCallerInRole` method on an injected `SessionContext` to determine the required information.
- D. Ensure that the `breakout` method is appropriately annotated with `@RolesAllowed`.

Answer: B

QUESTION 165

A developer writes two session beans which cooperate. The first session bean, `ShoppingCart`, collects orders and is implemented as a stateful session bean. The second session bean, `CalculateDiscount`, is implemented as a stateless session bean and runs on a different server. `ShoppingCart` contains the method `getTotalPrice`, which calculates the total price of the order in the `ShoppingCart`, including discounts. Discounts are calculated by `CalculateDiscount` using the information on the `ShoppingCart` bean, combined with data from a database. Which scenario can accomplish this?

- A. The `CalculateDiscount` offers a method `calculate` which is invoked by the `ShoppingCart` bean passing the this reference.
- B. The `CalculateDiscount` offers a method `calculate` which is invoked by the `ShoppingCart` bean. `CalculateDiscount` accesses the `ShoppingCart` instance by JNDI lookup.
- C. The `CalculateDiscount` offers a method `calculate` which is invoked by the `ShoppingCart` bean passing its reference obtained from the `SessionContext.getBusinessObject` method.
- D. The `CalculateDiscount` offers a method `calculate` which is invoked by the `ShoppingCart` bean. `CalculateDiscount` accesses the state of `ShoppingCart` by dependency injection.

Answer: C

QUESTION 166

A developer is implementing an EJB 3.0 JMS message-driven bean with bean-managed

transactions. Which two statements are true? (Choose two.)

- A. The message receipt is part of the user transaction.
- B. Message acknowledgement is automatically handled by the container.
- C. Messages are always processed in the order they were sent to the queue
- D. Two messages read from the same queue may be processed at the same time within the same EJB container.

Answer: B, D

QUESTION 167

A developer wants to create a Java Persistence query that will include a subquery. Which three are true? (Choose three.)

- A. Subqueries can be used in a FROM clause.
- B. Subqueries can be used in a WHERE clause.
- C. The ANY expression can be used only with a subquery.
- D. The EXISTS expression can be used only with a subquery.
- E. The MEMBER expression can be used only with a subquery.

Answer: B, C, D

QUESTION 168

Given the method invocation sequence:

Method 1 calls Method 2

Method 2 calls Method 3

Method 1 calls Method 4

And the transaction scope:

Method 1: Transaction A

Method 2: Transaction A

Method 3: Transaction A

Method 4: Transaction B

Assuming Method 1 is invoked by a client without an existing transaction context, which set of transaction attributes will support this scope?

- A. Method 1: NEVER
Method 2: SUPPORTS
Method 3: REQUIRED
Method 4: REQUIRES_NEW
- B. Method 1: REQUIRES_NEW
Method 2: MANDATORY
Method 3: SUPPORTS
Method 4: REQUIRES_NEW
- C. Method 1: REQUIRES_NEW
Method 2: MANDATORY
Method 3: SUPPORTS

Method 4: SUPPORTS
D. Method 1:MANDATORY
Method 2: REQUIRED
Method 3: SUPPORTS
Method 4: REQUIRES_NEW

Answer: B

QUESTION 169

Given the following stateless session bean implementation classes:

```
10. @TransactionAttribute(TransactionAttributeType.MANDATORY)
11. public class MySuper {
12. public void methodA() {}
13. public void methodB() {}
14. }
10. @Stateless
11. public class MyBean extends MySuper implements MyInt {
12. public void methodA() {}
13.
14. @TransactionAttribute(TransactionAttributeType.REQUIRES_NEW)
15. public void methodC() {}
16. }
10. @Remote()
11. public interface MyInt {
12. public void methodA();
13. public void methodB();
14. public void methodC();
15. }
```

Assuming no other transaction-related metadata, what are the transaction attributes of methodA, methodB, and methodC respectively?

- A. MANDATORY, MANDATORY, and MANDATORY
- B. REQUIRED, MANDATORY, and REQUIRES_NEW
- C. MANDATORY, MANDATORY, and REQUIRES_NEW
- D. REQUIRED, REQUIRES_NEW, and REQUIRES_NEW

Answer: B

QUESTION 170

A developer has obtained a container-managed entity manager with transaction scoped persistence context. Assume there is no persistence context associated with the entity manager. When does a new persistence context begins?

- A. when a JTA transaction begins
- B. when the entity manager is created
- C. when the entity manager is invoked in the scope of an active JTA transaction

D. when the entity manager is created in the scope of an active resource local transaction

Answer: C

QUESTION 171

A developer wants to create a Java Persistence query to perform a bulk update operation on five different entity classes. All of these classes have a field called name. These classes have the following relationships:

Harrier extends Dog and Dog extends Animal

Vet extends Doctor

What is the minimum possible number of operations required to change the value of the name field for all of the entities in all five classes?

- A. 1
- B. 2
- C. 3
- D. 4
- E. 5

Answer: B

QUESTION 172

Given:

10. @Stateless

11. public void SecureBean01 implements Secure01 {

23. @AllowRoles("ADMIN")

24. public void methodA() { }

10. @Stateless

11. public void Securesean02 implements Secure02 {

23. @AllowRoles("administrator")

24. public void methodB() { }

Which deployer action permits a user authenticated as "John" to call both methodA on SecureBean01 and methodB on SecureBean02?

- A. The deployer maps both role "ADMIN" and role "administrator" to user "John".
- B. The deployer replaces "administrator" by "ADMIN" in the source code of SecureBean02 and maps "ADMIN" to user "John".
- C. The deployer overrides the method permission of SecureBean02. methods in the ejb-jar.xml deployment descriptor and maps "ADMIN" to user "John".
- D. The deployer defines a common role and maps role "ADMIN" and role "administrator" using security-role-ref entries to this role. This common role is mapped to user "John".

Answer: A

QUESTION 173

A developer is implementing an EJB 3.0 message-driven bean that will be associated with a JMB

topic. The bean must NOT miss any messages published to the topic, even if the EJB server is down for some time. Which is correct?

- A. The developer should set the activation config property subscription Durability to value Durable.
- B. The developer should set the activation config property subscription Durability to value NonDurable.
- C. Clients must take care of resending messages to the topic in case of missing message acknowledgements.
- D. The developer does NOT need to do anything, because as long as the EJB server is down no client can publish messages to the topic.

Answer: A

QUESTION 174

An enterprise developer has received ejb-jars from multiple Bean Providers and wants to combine them into a single ejb-jar as well as altering the method permissions on some of the beans without recompiling any of the code contained in the ejb-jar. Which is correct?

- A. Bean Provider is the only role that can perform this task.
- B. Deployer is the most appropriate role to perform this task.
- C. Either a Deployer or System Administrator role may perform this task.
- D. This problem cannot be solved using an EJB 3.0-compliant approach.
- E. Application Assembler is the most appropriate role to perform this task.

Answer: E

QUESTION 175

A company has a business application that allows end users to order products over the web. A developer in the company wants to add the following capability to the application: When the web-tier handles a new order, it should notify all the interested beans in the EJB-tier. To satisfy this new capability, the developer wants to use a message-driven bean and must choose between associating it with a `javax.jms.Topic` destination or a `javax.jms.Queue` destination.

Which two are true about this decision? (Choose two.)

- A. JMS Topics are intended to be used to solve this type of scenario.
- B. JMS Queues are intended to be used to solve this type of scenario.
- C. Only Queue destinations allow for messages to survive a server crash.
- D. Topic destination allow the developer to configure subscription durability

Answer: A, D

QUESTION 176

Which is the valid use of the `javax.ejb.Init` annotation?

- A. to annotate a method in a stateful session bean class so that the container will invoke it after the EJB is deployed and started
- B. to specify the correspondence of a method on a stateful session bean with a create method of the adapter home interfaces
- C. to annotate a bean class inside the ejb-jar archive to act as a bootstrap EJB which is loaded into the container before any other EJBs
- D. for a client to invoke the method annotated with @Init to initialize a newly created stateful session bean instance with user-specific data

Answer: B

QUESTION 177

An application wants to utilize side-effects of cascading entity-manager operations to related entities. Which statement is correct?

- A. The persist operation is always cascaded to related entities for one-to-one and one-to-many relationships
- B. -To minimize the effect of the remove operation applied to an entity participating in a many-to-many relationship the remove operation should be cascaded to entities on both sides of the relationship.
- C. The persist operation applied to a new entity X is cascaded to entities referenced by X if the relationship from X to these other entities is annotated with the cascade=PERSIST or cascade= ALL annotation element value
- D. The remove operation applied to a removed entity X is cascaded to entities referenced by X if the relationship from X to these other entities is annotated with the cascade=REMOVE or cascade=ALL annotation element value.

Answer: C

QUESTION 178

A developer wants to have bookingDate stored in table BOOKING, flightNumber in table FLIGHTBOOKING, and hotelName in table HOTELBOOKING.

Given the following code snippets from different files:

```
10. @Entity
11. // insert code here
12. public class Booking {
13.     private Date bookingDate;
```

And:

```
15. @Entity
16. public class FlightBooking extends
Booking {
17.     private String flightNumber;
```

And:

```
20. @Entity
21. public class HotelBooking extends Booking
{
22.     private String hotelName;
```

Which code, inserted at Line 11 of class Booking, is appropriate for this strategy?

- A. @Joined
- B. SingleTable
- C. @TablePerClass
- D. @Inheritance(strategy=JOINED)
- E. @Inheritance(strategy=SINGLE_TABLE)
- F. @Inheritance(strategy=TABLE_PER_CLASS)

Answer: D

QUESTION 179

Which statement about mapping using the Java Persistence API is correct?

- A. User-defined XML mapping files can be used only if orm.xml file is NOT present.
- B. All mapping file other than orm.xml must be listed explicitly in the persistence.xml descriptor
- C. Mapping information specified in the XML mapping tile overrides all annotations and default mappings.
- D. The orm.xml file must be placed into the persistence units root to be processed by the persistence provider.

Answer: B

QUESTION 180

A developer needs to include a set of managed classes in a persistence unit. Which two solutions are correct? (Choose two.)

- A. Place the class files in the orm.xml file.
- B. Place the class files in root of the persistence unit.
- C. Place the class files in any mapping file that is included on the classpath.
- D. Place the class files in the any jar on the classpath that is included in the persistence unit

Answer: B, D

QUESTION 181

A developer wants to use the Java Persistence query language. Which two are true? (Choose two.)

- A. A WHERE clause is required in every query.
- B. The WHERE clause can restrict the scope of a delete operation
- C. The WHERE clause can be used to order the results returned by a query.
- D. The WHERE clause is used to determine the types of objects to be retrieved from a persistent store.
- E. The WHERE clause is used to restrict the contents of a collection of objects that are returned from a query

Answer: B, E

QUESTION 182

Using bean-managed transaction demarcation, under which two circumstances must the container roll back a transaction? (Choose two.)

- A. A stateful session bean invokes UserTransaction.getRollbackOnly.
- B. A stateful session bean throws an uncaught application exception from a business method.
- C. A stateful session bean begins a transaction in a business method but does NOT complete it before returning.
- D. A stateless session bean begins a transaction in a business method but does NOT complete it before returning.
- E. A message driven bean begins a transaction in a message listener method but does NOT complete it before returning.

Answer: D, E

QUESTION 183

A developer writes a stateless session bean FooBean and uses its deployment descriptor to declare a local ejb dependency on a stateful session bean in the same ejb-jar.

```
<ejb-local-ref>
<ejb-ref-name>barRef</ejb-ref-name>
<local>acme.Bar</local>
<ejb-link>BarBean</ejb-link>
<injection-target>
<injection-target-class>acme.FooBean</injection-target-class>
<injection-target-name>bar</injection-target-name>
</injection-target>
</ejb-local-ref>
```

Which environment annotation, when declared within the FooBean bean class, is equivalent to the ejb-local-ref shown above?

- A. @EJB(bean ="BarBean")
private acme Bar.barRef;
- B. @EJB(name="bar", beanName="BarBean")
private acme.Bar barRef;
- C. @EJB(name="barRef", beanName="BarBean")
private acme.Bar barRef;
- D. @EJB(name="ejb/barRef", beanName="BarBean")
private acme.Bar bar;

Answer: C

QUESTION 184

While executing a business method in a stateless session bean the container rolls back the method's transaction. Which three are possible causes for the container's behavior? (Choose three.)

- A. The bean uses container-managed transactions and invokes EJBContext.setRollbackOnly.
- B. The bean uses container-managed transactions and invokes EJBContext.getRollbackOnly.
- C. The business method throws an unchecked exception of a class type that is marked with the @ApplicationException annotation with the rollback element value true
- D. The business method throws a checked exception of a class type that is marked with the @ApplicationException annotation with the rollback element value false.
- E. The business method throws an unchecked exception of a class type that is marked with the @ApplicationException annotation with the rollback element value false.
- F. The bean uses container-managed transactions and throws a checked exception of a class type that is marked with the @ApplicationException annotation with the rollback element value false.

Answer: A, C, E

QUESTION 185

Given this code snippet from a JMS message-driven bean class named MyMDB:

- 11. public MyMDB() { System.out.print("a "); }
- 12. public void onMessage(Message m) { System.out.print(" b "); }
- 13. @PreDestroy
- 14. public void remove() { System.out.print(" c "); }

The container crashes and then restarts and then the bean class handles two messages. Which four are possible results? (Choose four.)

- A. a b b
- B. a c b b
- C. a a c b b
- D. a a b b c
- E. a b c b c
- F. a b a b c c

Answer: A, C, D, F

QUESTION 186

Which is the correct way of declaring bean-managed transaction demarcation for an EJB 3.0 message-driven bean?

- A. @MessageDriven
public class MyMessageBean
implements MessageListener, UserTransaction
- B. @MessageDriven
@TransactionManagement(TransactionManagementType.BEAN)
public class MyMessageBean implements MessageListener {
- C. @MessageDriven
public class MyMessageBean implements MessageListener {
@TransactionManagement(TransactionManagementType.BEAN)
public void onMessage(Message message) { .. }
- D. @MessageDriven(transactionManagement=TransactionManagementType.BEAN)
public class MyMessageBean implements MessageListener {

Answer: B

QUESTION 187

A developer is creating an entity which is mapped to a table that has a primary key constraint defined on two character columns and would like to use mapping defaults as much as possible to simplify the code. Which two mapping options can be chosen? (Choose two.)

- A. Use an @Id property that constructs a private field as a concatenation of two columns.
- B. Use a separate class to map those two columns and use an @IdClass annotation to denote the primary key field or property in the entity.
- C. Use a separate @Embeddable class to map those two columns and use @Embeddable annotation to denote a single primary key field or property in the entity
- D. Use a separate @Embeddable class to map those two columns and add two fields or properties to the entity, each marked as @Id that correspond to the fields or properties in the embeddable class.
- E. Use a separate class to map those two columns. Specify that class using @Idclass annotation on the entity class Add two fields or properties to the entity, each marked as @Id that correspond to the fields cm properties in that separate class.

Answer: C, E