



**Exam Code:** 310-092

**Exam Name:** Sun Cert Bus Component Developer Java  
EE Platform 5, Upgrade

**Vendor:** Sun

**Version:** DEMO

## Part: A

1: 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.

**Correct Answers: D**

2: 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 an @EmbeddedId 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 or properties in that separate class.

**Correct Answers: C E**

3: 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 nullable in the database.

**Correct Answers: A D**

4: 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;
```

**Correct Answers: C**

5: 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.

**Correct Answers: B D**

6: 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.

**Correct Answers: D**

7: 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).

**Correct Answers: B**

8: 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.

**Correct Answers: B**

9: 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.

**Correct Answers: B C**

10: 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.

**Correct Answers: A C**

11: 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.

**Correct Answers: B**

12: 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.

**Correct Answers: D**

13: 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.

**Correct Answers: B C D**

14: 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 of 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.

**Correct Answers: C E**

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

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

**Correct Answers: D**

16: The Java Persistence API defines the semantics of the remove operation and the entity lifecycle states. Which statement is true when the remove method is invoked on an entity X?

- A. If X is a removed entity it becomes managed.
- B. If X is a new entity it will be removed from the database.
- C. The remove method is always cascaded to related entities.
- D. If X is a detached entity an IllegalArgumentException will be thrown.

**Correct Answers: D**

17: Bean Provider has been asked to write a stateless session bean, MyBean with a single method breakout. A System Administrator guarantees that all clients 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.

**Correct Answers: B**

18: 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.

**Correct Answers: D**

19: 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.

**Correct Answers: C**

20: 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.

**Correct Answers: B**