Updates from ADMjava04 batch:

spring ioc

hibernate multiple questions

Concurrency/Threadpool

Exceptions

More questions on hql

Query interface, Criteria in Hibernate

SimpleDateFormat

1) Which of the following techniques can a Java SE programmer use to increase the thread safety of a program?

   a. Use public static variables
   b. Write classes so they are immutable
   c. Use ThreadLocal variables
   d. Use Final classes
   e. Annotate a class with @Multithread

Ans: b,C

2) Under which of the following conditions will an alert message be displayed for the Java script code given below

        <form name="frm">

```
<label for=äge"> Please enter your birthday</label>

<input type ="text" name=äge" id=äge" onblur="validate(this.value)"

<input type="submit"id=Ënter"/></form>

<script language ="javascript">

functionvalidate(val)

{

        if (isNaN(val)

        {

                alert("XXX XXX XXX");

                document.frm.age.focus();

        }

}

</script>
```

a. If the text box age contains a numerical value and the submit button Submit is clicked
b. If textbox age loses focus and contains a non-numerical value
c. If textbox age contains a non-numerical value and gains focus
d. If textbox age contains a non-numerical value and the submit button Enter is clicked
e. If textbox age loses focus and contains a numerical value

Ans: B

3) A Java EE servlet uses the line of code below:
String targetEmailForRequest = getServletConfig().getInitParameter("corporateEmail");

From which of the following locations will the application read the corporateEmail value?

a. An attribute corporateEmailasteriin the request
b. A <servlet-mapping> element in web.xml
c. A corporateEmail entity in properties.xml
d. An <init-param> element in web.xml
e. A corporateEmail item in the session

Ans: d

4) Which of the following statements correctly describe lightweight and heavyweight Java Swing components?
a. Lightweight components are faster in response and performance
b. *JWindow, JFrame , JDialog* and *JApplet* are lightweight components
c. Heavyweight components provide a consistent look and feel on all platforms
d. Heavyweight components depend on native code counterparts to handle their functionality
e. AWT components are heavyweight, whereas Swing components are lightweight

Ans: a,d,e

5) Which of the following can be returned in the variable result from invoking the below
Java SE code
java.util.Random r = new java.util.Random();
int result = r.nextInt(7);

a. 3
b. -1
c. 1234567
d. 7
e. 0

Ans: a,e

6) Which of the following statements regarding the usage of the Java SE this() and super()
keywords are valid?

a. If used, this() or super() calls must always be the first statements in a constructor
b. this() and super() can be used in the same (non-constructor) method
c. If neither this() nor super() is coded then the compiler will generate a call to the zero
argument superclass constructor
d. this() and super() calls can be used in methods other than a constructor
e. this() and super() can be used in the same constructor

Ans: a,c

7) Which of the following statements are true about variable access between a Java SE inner class and its containing class?

    a. The inner class cannot access public variables in the containing class
    b. The inner class cannot access its own private variables
    c. The inner class can access private variables in the containing class
    d. The containing class cannot access public variables in the inner class
    e. The containing class can access private variables in the inner class

Ans: C,d

8) In Java EE environment, which of the following statements are valid concerning the choice of a JDBC driver to access a database?

    a. Type 2 drivers have been deprecated since J2SE 5.0 and so should not be chosen
    b. Type 4 drivers exist for MySQL, Oracle, SQL Server and DB2
    c. A type1 driver will perform slightly faster than type2 driver
    d. A type3 driver does not support calls to stored procedures

e. Type 4 drivers have the fastest performance but require the installation of software on the client

f. Which is vendor indepenedent – type I

Ans: b

9) What will be the output of the following code snippet?

```
import java.util.*;
public class LinkEx{
        public static void main(String args[])
        {
                Set <String> set = new LinkedHashSet<String>();
                set.add("3");
                set.add("1");
                set.add("3");
                set.add("2");
                set.add("3");
                set.add("1");

                for(Iterator<String> it=set.iterator(); it.hasNext(); ){
                        String str=(String) it.next();
                        System.out.print(str+"-");
                }
        }
}
```

a. 3-1-2-
b. An exception will be thrown at runtime
c. 1-2-3-
d. 3-1-3-2-3-1-
e. The program will run to completion, but the output will vary depending on the JVM

Ans: a

10) Based on the annotated hibernate code below, which of the following statements are correct?

```
@Entity
public class Peanut {
        @Id
        @Column (name= "peanut_id")
        private String id;
        @Column private BigDecimal price;
        @OneToMany(cascade={CascadeType.All})
        @JoinColumn(name="peanut_id")
        @IndexColumn(name=ïdx")
        private List<Walnut> walnuts;
}
@Entity
public class Walnut{
        @Id
        @Column (name= "walnut_id")
        private String id;
        @ManyToOne
        @JoinColumn(name="peanut_id", insertable=false, updatable=false,
        nullable=false)
        private Peanut peanut;
}
```

a. A Walnut cannot have any Peanuts
b. A Walnut cannot update a Penut
c. A Walnut can have multiple Peanuts
d. A Peanut can have multiple Walnuts
e. A Peanut can delete a Walnut

Ans: b,d,e

11) A Java SE class, MyFileProcessor, opens and uses a FileReader object in response to calls by its clients. Which of the following techniques could be used so that a client can guarantee that the FileReader object is closed at a certain point?

a. The client sets its MyFileProcessor object reference to null
b. The client makes a call to System.gc()
c. MyFileProcessor contains code to close files in its destructor
d. MyFileProcessor contains code to close the FileReader in its finalizer
e. MyFileProcessor includes a public closeFiles method that contains code to close the files. The client calls this method

ns: e

12) The role of Spring in a full fledged Spring Web application is which of the following?
a. It provides only an application-tier and data-tier logic web application framework, while the presentation-tier logic is left to itself
b. It provides only a presentation-tier Web application framework, while the application-tier and data-tier logic is left to itself
c. It provides the domain logic which implements the business rules to be provided by the web application
d. It provides the management and configuration of business objects, enabling data access, integration, and presentation with simple POJOs
e. It does not provide support for a full-fledged Spring Web application, but provides the infrastructure to support third-party Web frameworks

Ans: b,d

13) Which of the following will be the result of an attempt to compile and execute the Java SE code snippet below?

```
1. class ExceptionDemo {
2.     public static void main(String[] args) {
3.     for (int x=3, int y=0; x>y; x--, y++) {
4.             System.out.print(x+ " "+y+" ");
5. }
6. }
7. }
```

a. The output is "3 1 0 2"
b. A compilation error will occur at line number 4
c. The output is " 3 0 2 1 "
d. A compilation error will occur at line number 3
e. A runtime exception will occur

Ans: d

14) Which of the following can be the output of an attempt to compile and execute the Java SE code snippet

```
public class ExceptionDemo  {
        public static void main(String args[]) {
                int x=5, y=0;
                try{
                try {
                        System.out.println(x);
                        System.out.println(x/y);
                        System.out.println(y);
                }
                        catch(ArithmeticException ex)
                        {System.out.println(Ïnner Catch1");
                        throw ex;
                        }
                } catch(RuntimeException ex)
                        {System.out.println(Ïnner Catch2");
                        throw ex;
                        }

                        Finally {
                                System.out.println("Inner Finally");
```

```
                        }

            catch(Exception ex)
            {
                    System.out.println("Outer Catch");

            }
        }
    }
```

a. 5
   Inner Catch1
   Inner Finally
   Outer Catch
b. 5
   Inner Catch1
   Outer Catch
c. 5
   Inner Catch2
   Outer Catch
   Inner Finally
d. 5
   Inner Catch1
   Inner Finally
e. 5
   Inner Catch2
   Inner Finally
   Outer Catch

Ans: a

15) Which of the following statements correctly describe hibernate annotations?

a. They are the indicators for the database on how to map database table to Java objects
b. They are embedded metadata in Plain Old Java Objects(POJO)
c. They cannot be combined with the XML-based configuration
d. They can be combined with Java Persistent API (JPA) implementations
e. They are retrieved by the Java Virtual Machine (VM) at runtime

Ans: a , b,d

16) In Java EE, which of the following JSP and EL statements will get the URI string of the client request?

a. ${pageContext.getRequest.getRequestURL}
b. <%=request.getClientURI() %>
c. ${pageContext.request.requestURI}
d. ${requestScope.requestURI}
e. <$pageContext.request.requestURI>

Ans: C

17) Which of the following statements correctly describe Hibernate id generation strategies?

a. The Native strategy uses Identity, Sequence, or Hilo depending on the database hibernate is connecting to
b. The sequence strategy generates the next available sequence for Sybase database
c. The assigned strategy allows the Java application to create the database identifier
d. The Hilo strategy uses a sequence number calculated from a Hilo algorithm
e. Ids generated with the Increment strategy are unique

Ans: a,c, e.

18) In Java SE, which of the following from the java.io package are concrete classes that can be instantiated?

    a. PrintWriter
    b. OutputStream(A)
    c. DataInput(I)
    d. FilterInputStream
    e. FilterReader(A)

Ans: a,d

19) Which of the following statements are correct about the java.util.Queue<E> interface in Java SE?
    a. The Queue class has 2 constructors, a zero argument constructor and a constructor that takes an int param(capacity)
    b. A Queue object orders its elements in a FIFO (First In First Out) manner
    c. In a PriorityQueue<Integer>, a call to element is guaranteed to return the element with the highest integer value
    d. In a Queue object containing one or more elements, the element and remove methods both return the same element – head element
    e. In a BlockingQueue<E>, a call to put is guaranteed to block unless the queue is full

Ans: b,d

20) Which of the following correctly describe what the command javah –jni_FooBar will produce?

    a. A library called jni_FooBar.h based on annotated elements in the FooBar class
    b. A Java class called FooBarH which Java used when invoking native code
    c. A Java style header file called jni_FooBar.h based on the annotations in the FooBar native library
    d. A C-style application from data elements in the jni_FooBar.java file
    e. A C-style header file called jni_FooBar .h based on the native methods defined in the FooBar class

Ans: e

21) Which of the following techniques can resolve an OutOfMemoryError in a Java SE application?

    a. Configure the garbage collector to run more frequently
    b. Increase the page file size of the computer's virtual memory
    c. Increase the available JVM heap size.
    d. Ensure that references to objects are released when they are no longer needed.
    e. Increase the amount of physical RAM on the computer

Ans: C,d

22) Two Java SE classes are declared as shown below:

```
public class Invoice {
        public static String formatId(String oldId) {
                return oldId + "_Invoice"

        }
}
public class SalesInvoice extends Invoice {
        public static String formatId (String oldId) {
                return oldId + "_SalesInvoice";
        }
}
```

Which of the following statements are true about attempts to use these classes?

    a. Invoice invoice = new SalesInvoice();
       System.out.println(invoice.formatId("1234"));

       Will output 1234_SalesInvoice

    b. Invoice invoice = new Invoice();

System.out.println((SalesInvoice)Invoice.formatId("1234"));

Will output 1234_SalesInvoice

c. Invoice invoice = new Invoice(); .
    System.out.println(invoice.formatId("1234"));

    Will output 1234_Invoice

d. SalesInvoice invoice = new SalesInvoice();
    System.out.println(Invoice.formatId("1234"));

    Will output 1234_SalesInvoice

e. SalesInvoice invoice = new SalesInvoice();
    System.out.println(invoice.formatId("1234"));

    Will output 1234_Invoice

Ans: C

23) Java SE class ThirdPartyObject, that is not thread-safe, is to be used in some new Java code. Which of the following design decisions can be made to ensure that no race conditions will occur?

    a. Provide a static getter for a ThirdPartyObject instance
    b. Store instances of ThirdPartyObject in a ThreadLocal .
    c. Make any instance of ThirdPartyObject a local (method) variable and ensure that no references to it are published.
    d. Use @Immutable as an annotation with ThirdPartyObject instances.

e. Ensure that an instance of ThirdPartyObject is private and can only be accessed using a public getter method

Ans: b,C

24) Java EE servlet-based application uses a context attribute that is vital to the operation of the application. Which of the following approaches can be used to ensure thread-safe access to the attribute?

a. Access the attribute within a code block that is synchronized on the request object
b. Agree a strategy where all servlets must access the attribute within a code block that is synchronized on the session object
c. Specify synchronized in the method declarations of doGet and doPost in the servlet
d. Agree a strategy where all servlets must access the attribute within the code block that is synchronized on the context object.
e. Access the attribute within a code block that is synchronized on the session object

Ans: d

25) Given code below contains overloaded and overridden constructor. Which of the following can be the result of an attempt to compile and execute this code?
```
class Superclass {
        Superclass() {
```

```java
                this(0);
                System.out.println("1");
        }
        Superclass(int x) {
                System.out.println("2"+x);
        }
}
public class Subclass extends Superclass {
        Subclass(int x) {
                System.out.println("3"+ x);
        }
        Subclass(int x, int y) {
                this(x);
                System.out.println("4"+ x + y);
        }
        public static void main(String[] args) {
                new Subclass(2,3);
        }
}
```

a. The output is
    32
    423
b. The output is.
    20
    1
    32
    423
c. The output is
    22
    32
    423
d. The output is
    5
    9
e. A Recursive constructor invocation compilation error occurs

Ans: b

26) In Java the two classes below are declared in the same file:
```java
        class Parent {
                protected static int count=0;
```

```
        public Parent () { count++; }
        static int getCount() { return count; }
}

public class Child extends Parent {
        public Child() { count++; }
        public static void main(String [] args) {
                System.out.println("Count = "+getCount());
                Child obj = new Child();
                System.out.println("Count = "+ getCount());
        }
}
```

Which of the following can be the result of trying to compile and execute this file?

a. The file will compile and run and the output will be :
   Count = 0
   Count = 1
b. The file will not compile
c. The file will compile and run and the output will be :
   Count = 1
   Count = 2
d. The file will compile and run and the output will be : .
   Count = 0
   Count = 2
e. The file will compile but will generate a runtime error

Ans: d

27) In the Java SE statement shown below, which of the following accurately describe the parameter "MyBundle"?

ResourceBundle bundle = ResourceBundle.getBundle("MyBundle", currentLocale);

a. An Internet URL
b. The name of a Java class
c. The name of a command line switch
d. The name-prefix of a series of property files.
e. The name of a .Net dll

Ans: d

28) Which of the following are implementations of the Front Controller pattern for full-fledged Spring Web application described by the deployment descriptor below?

```
<?xml version="1.0" encoding = "UFT-8"?>
<web-app xmlns = "http://java.sun.com/xml/ns/javaee"
        xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
        xsi:schemaLocation="http://java.sun.com/xml/ns/javaee
http://java.sun.com/xml/ns/javaee/web-app_2_5.xsd"
        version = "2.5">
        <display-name>Archetype Created Web Application</display-name>

        <servlet>
                <servlet-name> Spring MVC Web Application</servlet-name>
                <servlet-class>
                        [Spring Front Controller implementation]
                </servlet-class>
        </servlet>
        <servlet-mapping>
                <servlet-name>Spring MVC Web Application</servlet-name>
                <url-pattern>/*</url-pattern>
        </servlet-mapping>
</web-app>
```

a. RequestContextListener
b. RequestContextFilter
c. WebApplicationContext
d. DispatcherServlet .

e. ContextLoaderListener

Ans d

29) To troubleshoot a problem in a live system, a class is modified slightly resulting in the code shown below:

```
import java.util.ArrayList;
import java.util.List;
public List<String> queueSequence;
public void setup()
{try {   establishQueueSequence();
        }
        finally {
                cleanupQueueSequence();
                System.out.println("Queue sequence successfully cleaned up");
        }
}
private void cleanupQueueSequence() {
        if (queueSequence.size() > 0) {
                System.out.println("Queue size > 0");
        }
}
private void establishQueueSequence() {
        if (true) {
                throw new IllegalArgumentException();
        }
        queueSequence = new ArrayList<String>();
        }
}
```

Which of the following can be the result of an attempt to execute the code shown below?

```
IKMProcessor processor = new IKMProcessor();
processor.setUp();
System.out.println("Processing complete");
```

a. The program runs to completion without exception, but nothing is output
b. The program outputs: Queue sequence successfully cleaned up
c. Processing ends abnormally with an IllegalArgumentException
d. Processing ends abnormally with a NullPointerException .
e. The program outputs: Processing complete

Ans: d

30) Which of the following are valid results of executing the JavaScript code snippet below?

```
<body onLoad="hi()" onUnload = "bye()">
<script language=javascript>
        var nm= " ";
        function hi() {
                nm= prompt("Hello! Your name?", " ");
}
        {
        Function bye() { alert("Goodbye " + nm);
        }
</script>
</body>
```

a. There is no visible output when the document loads
b. After the document loads, a welcome message is displayed and the user is prompted for a name.
c. A syntax error is displayed when function hi() is executed
d. When the user request another URL, a good-bye message is displayed.
e. The document displays and error message, since all functions must be in the <HEAD>section of the document

Ans: b,d

31) Which of the following Java Native Interface (JNI) types and keywords map to their machine-dependent Java equivalents?

    a. const : constant
    b. void : void .
    c. jintArray : int []
    d. jlong : long.
    e. jarray : array

Ans: b,d,,

JNI,javah,swing and awt, jvm

32) Which of the following statements are valid about the JDBC code snippet below, written for a Java EE environment?

```
imports here
…..
public class MyJDBCInsertServlet extends HttpServlet {
        @Resource (name="jdbc/TimetableDBPool")
        private DataSource dataSource;
        @Override
        protected void doGet (httpServletRequest request, HttpServletResponse
                response) throws ServletException, IOException {
                String insertSql= "INSERT INTO purchase_order (id, description)
                        VALUES (?,?)";
                try {
                        Connection connection = dataSource.getConnection();
                        PreparedStatement insertStatement =
                                connection.prepareStatement(insertSql);
                        insertStatement.setInt(1, 12345);
                        insertStatement.setString(2, "QAC Demo");
                        insertStatement.executeInsert();  ….
                        insertStatement.close();
                        connection.close();
                }
                catch (SQLException e) {
                        e.printStackTrace();
                }
        }
}
```

a. The code will not compile
b. The code will throw an IndexArrayOutOfBoundsException
c. After execution, a record will be added to the purchase_orders table with id=12345 and description="QAC Demo"
d. A SQLException will be caught, then the code will continue execution
e. The code will throw a NullPointerException

Ans: a

33) Which of the following statements correctly describe Hibernate caching?

a. Caching causes extra database activity
b. Caching dynamic data will improve application performance
c. Hibernate bypasses the session cache by default
d. Cached data resides between the application and the database
e. Hibernate does not support second level caching

Ans: b,d

34) Before forwarding the request to a JSP, a Java servlet executes the code below:

```
java.util.ArrayList peopleNames = new java.util.ArrayList();
peopleNames.add("John");
peopleNames.add("Michelle");
peopleNames.add("Michael");
peopleNames.add("Susan");

request.setAttribute("favoriteNames", peopleNames);
```

In the JSP, which of the following EL statements will cause one or more of these names to be shown on the web page?

a. Second name is ${peopleNames[1]}
b. Last name is ${favoriteNames["Susan"]}
c. Names are ${favoriteNames}
d. Initial name is ${favoriteNames["O"]}
e. Favorite names are ${peopleNames}

Ans: c

35) A company is building a new application which stores all employee information

```
1.  @Entity
2.  public class Company {
3.  @Id
4.  @Column(name="company_id")
5.  private String id;
6.
7.  private String employeeNumber;
8.  @Column(name="employee_number")
9.  public void setEmployeeNumber (String value) {
10.      price = value;
11.      }
12. }
```

When the above code is executed, a mapping exception is thrown, which of the following changes will allow the code to successfully execute?

    a. Add at Line 12:
```
public void setId(String value) {
        id = value;
}
```
    b. Remove Line 3
    c. Remove Line 4
    d. Move Line 8 to Line 6
    e. Update Line 8 to @Column(name="employee_number_id")

Ans: a,d

36) Which of the following statements correctly describe the use of Java Native Interface (JNI)?

    a. JNI imports and converts non-Java code into a Java application
    b. JNI provides an out-of-the-box solution to interface with services outside the Java application
    c. JNI allows native operating systems to access Java based applications by bypassing the Java Virtual Machine (JVM)
    d. JNI gives applications direct access to computer hardware
    e. JNI allows applications to use native code in situations where Java cannot be used

Ans: e

37) Which of the following blocks of code can replace the asterisks in the Java Swing code
below to

```
import java.util.Locale;
import java.util.ResourceBundle;
import javax.swing.JFrame;

public class SwingInternationalizationDemo {
        public static void main (String[] args) {
                String language;
                String country;
                Locale locale;
                ResourceBundle rb;
                *****
        }
}
```

a. Locale = new Locale();
    rb= ResourceBundle.getBundle("MessageBundle" , locale);
    JFrame frame=new JFrame();
    frame.setSize(300,300);
    frame.setTitle(rb.getString("frameTitle"));
    frame.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
    frame.setVisible(true);

b. language = Locale.getDefault().getLanguage();
    country=Locale.getDefault().getCountry();
    locale=new Locale(language, country);
    rb= new ResourceBundle("MessageBundle", locale);
    JFrame frame=new JFrame();
    frame.setSize(300,300);
    frame.setTitle(rb.getString("frameTitle"));
    frame.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
    frame.setVisible(true);

c. language = System.getLanguage();
    country = System.getCountry();
    locale=new Locale(language, country);
    rb= ResourceBundle.getBundle("MessageBundle", locale);
    JFrame frame=new JFrame();

```
frame.setSize(300,300);
frame.setTitle(rb.getString("frameTitle"));
frame.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
frame.setVisible(true);
```

d.
```
language = Locale.getDefault().getLanguage();
country=Locale.getDefault().getCountry();
locale=new Locale(language, country);
rb= ResourceBundle.getBundle("MessageBundle", locale);
JFrame frame=new JFrame();
frame.setSize(300,300);
frame.setTitle(rb.getString("frameTitle"));
frame.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
frame.setVisible(true);
```
e.
```
locale = new Locale();
language = System.getDefaultLanguage();
country = System.getDefaultCountry();
locale.setLanguage(language);
locale.setCountry(country);
rb= ResourceBundle.getBundle("MessageBundle", locale);
JFrame frame=new JFrame();
frame.setSize(300,300);
frame.setTitle(rb.getString("frameTitle"));
frame.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
frame.setVisible(true);
```

Ans C

38) Two Java SE classes are declared as shown below:

```
package com.ikmnet;
public class MySuper {
        protected String buildString(String current) {
                return current + "1";
        }
}
package com.ikmnet;
public class MySub extends MySuper {
        @override
        public String buildString (String current) {
                return super.buildString(current);
        }
```

}

A test harness is accessed using the line of code below:

      new MyTestHarness().writeString();

Which of the following class declarations for MyTestHarness will result in a console output of

```
a. package anotherpackage;
   import com.ikmnet.MySub;
   public class MyTestHarness {
           public void writeString() {
                   MySub object = new MySub();
                   System.out.println(object.buildString("O, "));
           }

   }
```

```
b. package anotherpackage;
   import com.ikmnet.MySub;
   import com.ikmnet.MySuper;
   public class MyTestHarness {
           public void writeString() {
                   MySuper object = new MySub();
                   System.out.println(object.buildString("O, "));
           }
   }
```

```
c. package com.ikmnet;
   public class MyTestHarness {
           public void writeString() {
           MySuper object = new MySuper();
           System.out.println(object.buildString("O,"));
           }
   }
```

```
d. package anotherpackage;
   import com.ikmnet.MySuper;
   public class MyTestHarness extend MySuper {
           public void writeString() {
                   MySuper object = new MySuper();
                   System.out.println(object.buildString("O, "));
           }
   }
```

```
e.  package anotherpackage;
    import com.ikmnet.MySuper;
    public class MyTestHarness {
            public void writeString() {
                    MySuper object = new MySuper();
                    System.out.println(object.buildString("O, "));
            }
    }
```

Ans: a,c

39) In a Java SE environment, garbage collection is causing performance problems and it is
suspected …. Problems are caused by some of the applications making explicit calls to
System.gc(). Which of the following JVM
Arguments can be used to test this theory?

      a. –XX:+DisableExplicitGC
      b. –XX:+UseConcMarkSweepGC
      c. –XX:+UseParNewGC
      d. –XX:+UseParallelGC
      e. –Xverify:none

http://www.oracle.com/technetwork/articles/java/vmoptions-jsp-140102.html
Ans: a
==
40) A Java EE servlet contains the code below:

```
        public void doGet(HttpServletRequest request, HttpServletResponse response)
        throws Servletexception, IOException {
            …
            printWriter out = response.getWriter();
            out.println("<html><body>Please wait…</body></html>");
            out.flush();
            out.close();
            response.sendRedirect("BookingPortal.jsp");
            …
        }
```

Which of the following will occur when this code is executed?

      a. A page containing the text "BookingPortal.jsp"will display
      b. StackOverflowException will be thrown and be visible in the server log
      c. A page containing the text "Please wait…"will briefly display then
         disappear.

d. IllegalStateException will be thrown and be visible in the server log.
   e. The HTML for page Bookingportal.jsp will display

Ans : c, d

41) In Java SE, which of the following are true about the string s?
   String s = "abcd";

   a. The statement
      s.equals("abcd") will evaluate to true.
   b. The statement
      S == "abcd" will evaluate to true
   c. s.replace('a','f') will modify the string s
   d. Given
      String s2=new String("abcd");
      The statement
      s == s2 will evaluate to true
   e. The statement
      s = "abcd" will eval

   Ans: a

42) Which of the following statement correctly describe the Java Hibernate framework?

   a. It is an Object Relation Mapping implementation.
   b. It is not supported with Enterprise Java Beans (EJBs)
   c. It increases the complexity of the application
   d. It converts Java objects to database specific SQL statements.
   e. It supports distributed databases

Ans : a,d,e

43) Which of the following do NOT correctly declare a generic java SE class?

   a. public class Account<T> {

      private T accountType;

      public void add(T newType) {accountType= newType;}

```
                    public T get() {return accountType;}

                    }

            b.    public class Account {

                    private<T extends Object> accountType;

                    public void add (<T extends Object> newType) {accountType=newType;}

                    public<T extends Object> get() {return accountType;}

                    }.

            c.    public class Account<T>{

                    private T accountType;

                    public void add(T newType) {accountType =newType;}

                    public T get() { return accountType;}

                    }

            d.    public class Account {
                    private<T> accountType;
                    public void add(<T> newType){ accountType =newType;}
                    public Type get() { return accountType; }

                    }.

            e.    public class Account(Type){
                    private Type accountType;
                    public void add(Type newType){accountType=newType;}
                    public Type get() { return accountType;}

                    }.
```

As: a,c

Ans: b,d,e

44) Which of the following statements are valid about JPA Entities in Java EE?

a. Mapping between java objects and the related databases must be defined using annotations.
b. An entity class must implement a persist() method
c. In an entity class, the annotation @ColumnInTable must be used if a field is to be associated with a column in a table
d. An entity instance corresponds to a table row.
e. An entity is a POJO annotated with the @Entity annotation.

Ans: a,d,e

45) following are created by the J2SE 5.0 code below?

```
package pkg;

class Foo {

        native int bar(String S);

        Static {

                System.loadLibrary("foo_bar");

        }}
```

a. A native library called foo_bar .
b. A mapping in the registry between the java class Foo and a native application called foo_bar
c. A java class with a native method called bar.
d. A native method called bar, which is used in the native application called foo_bar
e. A static native class called foo_bar

Ans: a,c

46) The JavaScript snippet show is to be used by a gaming software company to return the "x" & "y"coordinates of a user's mouse click. The script must correctly address any current browser challenges as well as Internet Explore support for versions prior to IE6. Which of the following values can be substituted for ***A***, ***B*** and ***C*** in the JavaScript code to execute correctly?

```
<script language="javascript"type="text/javascript">
function processClick(evt) {
        ***A***
        var x = 0; var y = 0;
        var result = new Array(2);
        var offsetX = 0; offsetY= 0;
        if (evt.pageX) {
                x=evt.pageX;
                y = evt.pageY;
        } else if (evt.clientX) {
                If (document.documentElement.scrollLeft) {
                        offsetX = document.documentElement.scrollLeft;
                        offsetY = document.documentElement.scrollTop;
                } else if (document.body) {
                        offsetX = document.body.scrollLeft;
                        offsetY = document.body.scrollTop;
                }
        }
        result[0] = evt.clientX + offsetX;
        result[1] = evt.clientY + offsetY;
        return result;
}

If (document.attachEvent)
        ***B***
else
        ***C***
</script>
```

    a.   Replace ***A*** with evt=evt || windows.event;
           Replace ***B*** with document.attachEvent("onclick",processClick);
           Replace ***C*** with document.addEventListener("click",processClick, false); .

    b.   Replace ***A*** with evt=evt || windows.event;
           Replace ***B*** with document.attachEvent("onclick",processClick, false);
           Replace ***C*** with document.addEventListener("click",processClick);

    c.   Replace ***A*** with evt=evt || windows.event;
        Replace ***B*** with <mark>document.addEventListener("onclick",processClick)</mark>;
        Replace ***C*** with document.attachEvent("click",processClick, false);

    d.   Replace ***A*** with evt=evt || windows.event;
        Replace ***B*** with document.attachEvent("<mark>onmouseclick</mark>",processClick, false);
        Replace ***C*** with document.addEventListener("mouseclick",processClick);

Ans: a

47) A User application deals with late binding in its implementation as is shown in the Java SE code snippet

```
class LB_1 {
   public void retValue() {
           System.out.println("LB_1");
   }
}
pubicl class LB_2 extends LB_1 {
   public void retValue() {
           System.out.println("LB_2");
   }
   public static void main(String args[]) {
           LB_1 lb = new LB_2();
           lb.retValue();
   }
}
```

    a.   A runtime error will occur
    b.   A compilation error will occur
    c.   LB_2
    d.   LB_1 LB_2
    e.   LB_1

Ans: c

48) Java EE application is to be built so that some of the functionality can be customized by each customer. The intention is that each customer will be able to write a class to implement the customer behavior then deploy the class with the application. Which of the following are valid approaches that will enable the deployer at the customer site to achieve this?

    a.   The deployer uses Winzip to add and remove .class files in the EAR file

b. The deployer uses the IDE to code the correct class and runs Junit tests to verify
c. The deployer specifies the classname in a config file. The application code reads the file and uses reflection api to load the class
d. The deployer uses Winzip to add and remove .class files in the RAR file
e. In the container, the deployer adds the Java source code of the class to the classpath

Ans: c

49) In Java SE, which of the following statements are correct about thread management in the main method?
a. The main method runs on daemon thread with a higher priority than the garbage collector's thread
b. The main method can start a daemon thread that will not affect whether the JVM instance exits
c. When the main method returns, any daemon thread created by it are always automatically terminated
d. Any thread launched by the main method will be a non-daemon thread with the same priority as the original thread
e. When the main method of a program returns, the JVM instance must exit

Explain: When main method is called by default one main thread is created. And main thread is a non-dameon thread. When threads created by the main method it inherits it's parant's property. That means they are all non-daemon threads. As you know JVM waits until all non-daemon threads to complete. So it will executes even after the main thread completes.

B,D

==

50) Which of the following combinations of Spring modules cover end-to-end functionalities of presentation, middle-tier,and data access in the full-fledged Spring Web application below?
<?xml version="1.0" encoding="UFT-8"?>
<beans xmlns="http://www.springframework.org/schema/beans"
        xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
        xmlns:tx=http://www.springframework.org/schema/tx"
        xmlns:mvc=http://www.springframework.org/schema/mvc"

```
xsi:schemaLocation="http://www.springframework.org/schema/beans
        http://www.springframework.org/schema/beans/spring-beans-3.0.xsd
        http://www.springframework.org/schema/tx
        http://www.springframework.org/schema/tx/spring-tx-3.0.xsd
;       http://www.springframework.org/schema/mvc
        http://www.springframework.org/schema/mvc/spring-mvc-3.0.xsd">
<mvc:annotation-driven/>
<bean class="MyController"/>
<tx:annotation-driven />
<bean id="transactionManager"

class="org.springframework.jdbc.datasource.DataSourceTransactionManager">
        <!-- ... - - >
</bean>

<bean id = "localSessionFactoryBean"
        class = "org.springframework.orm.hibernate3.LocalSessionFactoryBean"
        init-method="createDatabaseSchema">
        <! -- ... -- >
</bean>
<bean id = "myDataSource"
        class = "org.springframework.jcbc.datasource.DriverManagerDataSource"
>
        <! -- ... -- >
</bean>
</beans>
```

a. Web, Context, JDBC
b. Portlet, AOP, Context
c. Core, AOP,OXM
d. ORM, Transactions, JDBC.
e. Beans, Context, JDBC

Ans: d

51) Consider the deployment descriptor for a Java EE servlet shown below

```
<web-app>

        <context-param>
```

<param-name>GeneralSitename</param-name>

<param-value>S1234</param-value>

</context-param>

</Web-app>

<servlet>

<servlet-name> orders</servlet-name>

<init-param>

<param-name>AccountingSitename</param-name>

<param-value>A5678</param-value>

</init-param>

</servlet>

Which of the following are valid?

a. getServletConfig().getServletContext("ÄccountingSitename").getInitiParameter() returns A5678
b. getServletContext().getAttributeNames() returns the value AccountingSitename.
c. getServletContext().getInitParameter("GeneralSitename") returns the value S1234.
d. getServletConfig().getInitiParameter() returns the value GeneralSitename
e. getServletConfig().getServletName() return the value AccountingSitename

Ans: C

52) In the context of Java Hibernate, which of the following correctly describe the purpose of the cascade property?

a. It ensures attributes in a non –mapped class are saved, updated, merged or deleted
b. It replaces boiler-plate code when loading databases values
c. It removes the need to have code for saving, updating, merging and deleting objects
d. It replaces boiler-plate code for saving , updating ,merging and deleting collections.
e. It ensures collections in a valid mapped class are saved, updated, merged or deleted.

d,e

53) If the java SE method below exists in a superclass:

protected int getLocalCode(String value, boolean isValidated)

Which of the following are valid subclass override declarations?
a. @Override
 public int getLocalCode(String value, boolean isValidated) .
b. @Override
 protected long getLocalCode(String value, boolean isValidated)
c. @Override
 protected short getLocalCode(String value, boolean isValidated)
d. @Override
 protected int getLocalCode(String value, boolean isValidated) throws invalideCodeException

e. @Override
 protected int getLocalCode(String value, boolean isValidated) .

ans: a,e

54) Which of the following statements are valid regarding the Java SE code snippet provided below?

Import java.io.*;
public class FileClass{
        public static void main (String[] args) {
                File file = new File("test.txt");
                File backup = new File ("test.txt.bak");

```
                    backup.delete();
                    file.renameTo(backup); // Location 1
            }
        }
```

a. If before execution: file test.txt containing the line
   Original
   Result: test.txt no longer exits. File test.txt.bak is created containing line
   Original
b. There will be a runtime error at Location 1 regardless of which files exist before execution.
c. If before execution: test.txt.bak does not exist
   Result: an IOException is thrown during execution
d. If before execution: test.txt does not exist
   Result: an empty file test.txt.bak is created
e. If before execution: file test.txt exists containing the line

   Original

   Result: test.txt remains unchanged and file test.txt.bak is created containing line

   Original

   a

55) Which of the following are features of Servlet in Java EE?

a. The container calls the servlet's init(ServletConfig) to pass a ServletConfig reference to the servlet
b. The container calls the servlet's init(HttpServletRequest) to make the request object available to the servlet.
c. The servlet can extend HttpRequest or HttpResponse.
d. The servlet must extend GenericServlet directly
e. A destroy() method is called after each response to a client.

Ans:a,d

56) Which of the following are JTA @TransactionAttribute values for declarative transactions in Java EE?

    a. Manadatory
    b. ReadCommited
    c. TransactionMandatory
    d. RequiresNew
    e. Heuristic

Ans: a, REQUIRES_NEW

57) Which of the following correctly describe the output from the Java SE program below?

```
java.text.ParseException;

import import java.text.SImpleDateFormat;

import java.util.Calendar;

import java.util.Date;

public class CalendarTest {

public static void main(Striing[] args) {

        Date aDate= null;

        try {

                aDate = new SimpleDateFormat("yyyy-mm-dd").parse("2012-01-15");

                Calendar aCalendar = Calendar.getInstance();

            aCalendar.setTime(aDate);
            System.out.print(aCalendar.get(aCalendar.DAY_OF_MONTH)+","+aCalendar
            .get(aCalendar.MONTH);

            }

            Catch (ParseException ex) {System.out.println(ex);}

    }

}
```

a. java.text.ParseException : unparseable date: "2012-01-15"
b. 1,0
c. 15,1
d. 1,1
e. 15,0

Ans: e

59. Which of the following correctly describe the output from the java SE program below?

```java
import java.text.ParseException;
import java.text.SimpleDateFormat;
import java.util.Calendar;
import java.util.Date;

publicclass Test01 {

    publicstaticvoid main(String[] args) {
        Date aDate =null;
        try{
            aDate =new SimpleDateFormat("yyyy-mm-dd").parse("2012-01-
15)");

            Calendar aCalendar =Calendar.getInstance();
            aCalendar.setTime(aDate);
            System.out.println(aCalendar.get(aCalendar.DAY_OF_MONTH)+"
, "+aCalendar.get(aCalendar.MONTH));
        }catch(ParseException ex){
            System.out.println(ex);
        }

    }

}
```

    A. Java.text.Parseexception:Unparseable data:"2012-01-15"
    B. 1.0
    C. 15,1
    D. 1,1
    E. 15,0

Ans:E

60. Which of the following can be result of an attempt to compile and execute
the java SE code below?
```java
import java.math.BigDecimal;
```

```
interface Account{
      BigDecimal balance = newBigDecimal(0.0);
}

class SavingAccount implements Account{
      public SavingAccount(BigDecimal intialValue){
            balance = intialValue;
      }
      public String toString(){
            returnbalance.toString();
      }

}

publicclass Test25 {

      publicstaticvoid main(String[] args) {

            SavingAccount instance= newSavingAccount(new BigDecimal(50.00));
            System.out.println(instance);
      }

}
```
A. Class SavingAccount is the output
B. 0.00 is output
C. A compilation error occurs.
D. A runtime exception is thrown
E. 50.00 is the output.

Ans:C

61. Which of the following transition can occur during the life cycle of a
thread in J2SE 6.0?

A. New to Runnable.
B. Terminated to Ready
C. Blocked to Runnable.
D. New to Timed_Wating
E. Runnable to Waiting

Ans: A,C,

62. In a Java EE environment, when setting up input parameters for a PreparedStatement, which of the following Java to SQL types mapping are valid?

    A. Java int to SQL SMALLINT
    B. Java Struct to SQL BLOB
    C. Java Resultset to SQL RESULTSET
    D. Java char[] to SQL STRING
    E. Java BigDecimal to SQL DECIMAL

Ans: E

==

63. *Which* of the following statements are correct about the java.util.Queue<E> interface in Java SE?

    a. The Queue class has 2 constructors, a zero argument constructor and a constructor that takes an int param(capacity)
    b. A Queue object orders its elements in a FIFO (First In First Out) manner-
    c. In a PriorityQueue<Integer>, a call to element is guaranteed to return the element with the highest integer value
    d. In a Queue object containing one or more elements, the element and remove methods both return the same element-
    e. In a BlockingQueue<E>, a call to put is guaranteed to block unless the queue is full

Ans: b,d

64. Which of the following correctly describe what the command javah –jni FooBar will produce?

    a. A library called jni_FooBar.h based on annotated elements in the FooBar class
    b. A Java class called FooBarH which Java used when invoking native code

c. A Java style header file called jni_FooBar.h based on the annotations in the FooBar native library
d. A C-style application from data elements in the jni_FooBar.java file
e. A C-style header file called jni_FooBar .h based on the native methods defined in the FooBar class-

Ans: e

65. Which of the following statements correctly describe hibernate annotations?

a. They are the indicators for the database on how to map database table to Java objects.
b. They are embedded metadata in Plain Old Java Objects(POJO).
c. They cannot be combined with the XML-based configuration
d. They can be combined with Java Persistent API (JPA) implementations.
e. They are retrieved by the Java Virtual Machine (VM) at runtime

Ans: a,b,d

66. Which of the following are valid results of executing the JavaScript code snippet below?

```
<body onload="hi()" onunload="bye()">
<script type="text/javascript">
var nm = "";
function hi(){
    nm = prompt("Hello!your name?", "");
}
function bye(){
    alert("GoodBye "+nm);
}
</script>
<a href="a.html">Click Me !</a>
</body>
```

A. When the user request another URL , a good-bye message is displayed.
B. After the documents loads, a welcome message is displayed and the user is prompted for a name.
C. The document displays an error message , since all functions must be in the <HEAD> section of the document
D. There is no visible output when the documents loads
E. A syntax error is displayed when function hi() is executed

Ans : A,B

67

Which of the following describe how to create a custom component that uses a UI delegate in Java Swing?

A. Have a component extend from the AWT Component

Create a subclass of ComponentUI for the custom component.

Override at least the createUI() and paint() methods

Override four methods of the Component subclass

B. Have a component extend from the AWT Container

Create a subclass of ContainerUI for the custom component.

Override at least the createUI() and paint() methods

Override four methods of the Container subclass

C. Have a component extend from the AWT ComponentOrientation

Create a subclass of ComponentUI for the custom component.

Override at least the createUI() and paint() methods

Override four methods of the ComponentOrientation subclass

D. Have a component extend from JComponent

Create a subclass of ComponentUI for the custom component.

Override at least the createUI() and repaint() methods

Override four methods of the ComponentOrientation subclass

E. Have a component extend from JComponent.

Create a subclass of ComponentUI for the custom component.

Override at least the createUI() and repaint() methods.

Override four methods of the JComponent subclass.

http://stackoverflow.com/questions/17798631/how-to-determine-the-correct-ui-implementation-for-a-custom-component

Ans: E

68. Which of the following statement correctly describe Hibernate Caching?

A. Caching causes extra database activity
B. Hibernate bypasses the session cache by default
C. Cached data resides between the application and the database.
D. Caching frequently queried data will improved application performances.
E. Hibernate does not support second level caching

Ans: C,D

69. Which of the accurately describe a checked exception in Java SE?

   A. A subclasses of java.lang.Throwable annotated with @checked
   B. A class that implements java.lang.CheckedException
   C. A subclass of java.lang.Runtimeexception
   D. A subclass of java.lang.CheckedException
   E. A subclass of java.lang.Exception.

Ans: E

70. A Third Party java application is running out of space on the heap after executing for few hours.Which of the following command line argument can be used at application startup to improve the situation.?
A. -Xmx

```
-Xms<size>        set initial Java heap size
-Xmx<size>        set maximum Java heap size
-Xss<size>        set java thread stack size
```

71. If param1 and param2 are local variables, which of the following can be the result of an attempt to execute the Java SE code below with different values of param1 and parem2?

Map<String, Integer> names = Calendar.getInstance().getDisplayNames(Calendar.DAY_OF_WEEK, Calendar.LONG, param1);
try{
    FileOutputStream fos= new FileOutputStream("test.txt");
Writer out = new OutputStreamWriter(fos, param2);
out.writer(names.toString());
out.close();

```
}
Catch (IOException ex){
System.out.printn(ex);
}
```

A. param1:Locale.RUSSIAN
    parm2: "UTF-16"

    then this message is output to the console

    java.io.UnsupportedEncodingException : UTF-16

B. param1:Locale.ENGLISH
    parm2: "UTF-32"

    then test.txt contains:

    {##$% =7, %$#@=6, @#!%=4, $#@%=1, %$#@=5}

C. parm1: Locale.JAPANESE-
    param2: "UTF-64"

    then this message is output to the console

    java.io.UnsupportedEncodingException : UTF-64

D. parm1: Locale.CHINESE
    param2: "UTF-32"

    then test.txt contains:

    {Saturday=7, Thursday=5, Monday=2, Wednesday=4, Friday=6,Sunday=1}

E. parm1: Locale.ENGLISH -
    param2: "UTF-16"

    then test.txt contains:

    {Saturday=7, Thursday=5, Monday=2, Wednesday=4, Friday=6,Sunday=1}

    Ans: C,E

72. Which of the following correctly describe the modules of the Spring architecture?

A.   The Context module provides a Web-based framework for integrating Spring's IoC and DI containers through the J2EE Servlet API

B. The Web module provide transaction management for data access business logic, utilizing AOP to inject transaction logic into domain functionality

C. The inversion of Control(IOC) and dependency Injection (DI) contains , as well as fundamental parts of the Spring framework, are provided by the core and Beans modules.

D. The transaction modules provides and AOP framework to utilize proxies to transparently inject any desired business logic into domain functionality.

E. The Aspect-Oriented Programming(AOP) modules builds on the Core and Business modules to provide the ApplicationContext infrastructure, allowing access to object in a framework style.

B,C,D

73. Which of the following blocks of code can replace the asterisks oin the Java Swing code

   below to

   import java.util.Locale;

   import java.util.ResourceBundle;

   import javax.swing.JFrame;

   public class SwingInternationalizationDemo {

```java
        public static void main (String[] args) {

                String language;

                String country;

                Locale locale;

                ResourceBundle rb;

                *****

        }

}
```

a. Locale = new Locale();
   rb= ResourceBundle.getBundle("MessageBundle" , locale);
   JFrame frame=new JFrame();
   frame.setSize(300,300);
   frame.setTitle(rb.getString("frameTitle"));
   frame.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
   frame.setVisible(true);

b. language = Locale.getDefault().getLanguage();
   country=Locale.getDefault().getCountry();
   locale=new Locale(language, country);
   rb= new ResourceBundle("MessageBundle", locale);
   JFrame frame=new JFrame();
   frame.setSize(300,300);
   frame.setTitle(rb.getString("frameTitle"));
   frame.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
   frame.setVisible(true);

   .
c. language = System.getLanguage();
   country = System.getCountry();
   locale=new Locale(language, country);
   rb= ResourceBundle.getBundle("MessageBundle", locale);
   JFrame frame=new JFrame();
   frame.setSize(300,300);
   frame.setTitle(rb.getString("frameTitle"));
   frame.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
   frame.setVisible(true);

d. language = Locale.getDefault().getLanguage();
    country=Locale.getDefault().getCountry();
    locale=new Locale(language, country);
    rb= ResourceBundle.getBundle("MessageBundle", locale);
    JFrame frame=new JFrame();
    frame.setSize(300,300);
    frame.setTitle(rb.getString("frameTitle"));
    frame.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
    frame.setVisible(true);

e. locale = new Locale();
    language = System.getDefaultLanguage();
    country = System.getDefaultCountry();
    locale.setLanguage(language);
    locale.setCountry(country);
    rb= ResourceBundle.getBundle("MessageBundle", locale);
    JFrame frame=new JFrame();
    frame.setSize(300,300);
    frame.setTitle(rb.getString("frameTitle"));
    frame.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
    frame.setVisible(true);

Ans: c

74.
```
publicclass MyCollection<T> {
    private Set<T>set;
    public Set<T> getCollection(){
        returnthis.set;
    }
    publicvoid TestCollection(MyCollection<?>collection){
        //Set<?>set = collection.getCollection();
    }
}
```

Which of the following code blocks will create a variable from the getCollection's returned value?

```
A. public void TestCollection(MyCollection<?> collection){.
       Set<?> set = collection.getCollection();
   }
B. public void TestCollection(MyCollection<?> collection){
   <?> set = collection.getCollection();
       }
C. public void TestCollection(MyCollection<?> collection){
   <T> set = collection.getCollection();
       }
D. public void TestCollection(MyCollection<?> collection){
```

```
        Set<E> set = collection.getCollection();
            }
    E. public void TestCollection(MyCollection<?> collection){
            Set<T> set = collection.getCollection();
        }
```

Ans: A,E

75. In Java SE which of the following statement are true about
RandomAccessFile class define in java.io package?

   A. The valid RandomAccessFile modes are r, w, and rw
   B. When a RandomAccessFile is created in write only mode it always
      write bytes starting at the file pointer
   C. A RandomAccessFile object can be instantiated in read only mode.
   D. If an existing file is flagged as read only on the file system
      then the RandomAccessFile constructor can throw an "access is
      denied" exception
   E. The RandomAccessFile has a method that returns the offset at
      which the next read or write will take place.

Ans: C, E

76. A company is building a new application which stores all employee information

```
@Entity
public class Company {
@Id
@Column(name="company_id")
private String id;

private String employeeNumber;
@Column(name="employee_number")
public void setEmployeeNumber (String value) {
    price = value;
    }
}
```

When the above code is executed, a mapping exception is thrown, which of the

a. Add at Line 12:
    ```
    public void setId(String value) {
            id = value;
    }
    ```
b. Remove Line 3
c. Remove Line 4
d. Move Line 8 to Line 6
e. Update Line 8 to @Column(name="employee_number_id")

Ans: a,d

77. package com.ikm

class A{

public void m1(){

System.out.println("A.m1, ");

}

protected void m2(){

System.out.println("A.m2, ");

}

private void m3(){

System.out.println("A.m3, ");

}

void m4(){

System.out.println("A.m4, ");

}

}

public class B{

public static void main(String [] args){

        A a = new A();

        a.m1();

a.m2();

a.m3();

a.m4();

}

}

A. The line a.m4(); causes compilation error.
B. The program outputs:A.m1, Am2,Am3,Am4.
C. The line a.m3(); causes compilation error.
D. The line a.m1(); causes compilation error.
E. The line a.m2(); causes compilation error.

Ans: C

78. Which of the following statement can provide transaction services

In Java EE?

A. An EJB container can provide transaction services to an applications.
B. Declarative transaction attributes can be specified to an application
C. A servlet container cannot provide transaction service to an application.
D. JTA can be used to roll back a transaction after it has committed.
E. The Mandatory attribute is the implicit transaction attribute for all enterprise bean methods running with container-managed transaction demarcation.

Ans: A,C,D

79. A pharmaceutical company has a nightly job which generates metrics for all its active research projects. A C++ library call Armadillo is used to generate the metrics. The company wants to build a Java application to display the metrics in a web browser. Which of the following J2SE 5.0 framework will allow the Java code to access the Armadillo results?

  A. Java Native Interface(JNI).
  B. A Java API for XML Web Service (JAX_WS).
  C. A Java Messaging Services(JMS)
  D. An Enterprise Java Bean(EJB)
  E. A Java Persistence API(JPA)

Ans: A

80. Soon after a Java EE Internet application goes live, intermittent crashes occur. The line of code causing the trouble is identified below, where request is the HTTPServletRequest object:

HttpSession mySession = request.getSession();

For the cases where a crash is observed, mySession is set to a new Session when an existing Session should have been retrieve. Which of the following factors can contribute to this problem?

  A. For existing sessions request.setSessionId(String) must be called before getSession.
  B. The Java EE specification does not oblige Web Containers to implement HTTPServletRequest.getSession().
  C. The Servlet is using URL rewriting

D. A web browser has disabled cookies.

E. web.xml contains the entry <StatelessSession>true</SatelessSession>

Ans: A,

81. When the code snippet below is executed, the user types "Hello" in the first text control and then click the Click Me button. Which of the following statement correctly describe the result of performing these steps?

```
<script type="text/javascript">
function Pass(){
      document.jane.elements[0].value = document.joe.elements[0].value;
}

</script>
</head>
<Body>
<form name="joe">
<input type="text" size=30>
</form>
<form name="abc">
<input type="button" value="Click Me" onclick="Pass()">
</form>
<form name="jane">
<input type="text" size=30>
</form>
</Body>
</html>
```

A. The text is moved to the second text control.
B. The text is recopied in the first text control
C. Nothing, function Pass() contains an error
D. The text is deleted from the first test control
E. The text is copied to the second test control.

Ans: E

82. Which of the following statement are true about a thread pool in Java SE?

    A.   The client of thread pool passes is new threads as they become eligible for executions.
    B.   Class java.util.concurrent.ThreadPoolExecution provides an implementation of a thread pool
    C.   In a thread pool, any deadlocked threads will be terminated after the time indicated on startup switch
        – DthreadPoolTimeout
    D.   A thread pool is generally ineffective in a multi-processor environment
    E.   A thread pool can provide good performance in handling large numbers of short-lived tasks.

A,E

83. Which of the following statements regarding the usage of the Java SE this() and super() keywords are valid?

    a.   If used, this() or super() calls must always be the first statements in a constructor
    b.   this() and super() can be used in the same (non-constructor) method
    c.   If neither this() nor super() is coded then the compiler will generate a call to the zero argument superclass constructor
    d.   this() and super() calls can be used in methods other than a constructor
    e.   this() and super() can be used in the same constructor

Ans: a,c

84. Which of the following about Exception in Java SE are true?

    A. If a method can throw a subclass of RuntimeException then the method declaration must include a throws clause
    B. Throwable is a subclass of Exception
    C. NullReferenceException is a subclass of runtimeException
    D. If a checked exception is thrown by a method then calling method must either catch the exception or declare throws.
    E. If an exception is caught then it can re-thrown.

Ans: D,E

85. Assuming the Student class has a valid Java mapping file, which of the following lines need to be updated for Hibernate to successfully map the class below (lines numbers are for reference purpose only)?

1. public class Student{
2.   int id;
3. List<Course> courses;
4. String name;
5.
6. private Student(){}
7.
8.   public Student(int id, List<Course>courses, String name){
9.   this.id = id;
10.   this.courses = courses;
11.   this.name = name;
12. };

13.   //Setter and Getters

14. }

   A. Remove line 2
   B. Change line 8 to: private Student(int id, List<Courses> courses, String name){
   C. Remove line 3
   D. Change line 6 to: public Student() {}.
   E. Remove lines 9-12

Ans: D

86. Which of the following statements about Java SE Interfaces are valid?
   A. If two interfaces have in common an identical method signature then a class that implements both the interfaces must define the method twice with different annotations.
   B. An interface can be implemented as an anonymous inner class.
   C. Methods inside the interface must be declared as public
   D. An abstract class that implements an interface can implement none, some or all methods of the interface.
   E. An interface can extends at most one other interface.

Ans: D

87. Which of the following correctly describe how JDBC objects are objects are obtained in Java EE system?

   A. A ResultSet object can be obtained by calling executeQuery() on a Connection object
   B. A ResultSet object can be obtained by calling getResultSet() on a Connection object
   C. A PerparedStatement object can be obtained by calling getPreparedStatement() on a ResultSet object
   D. A Connection object can be obtained by calling getConnection() on a DataSource object.
   E. A DataSource object can be obtained by calling getDataSource() on a Connection object

Ans: D

88. Which of the following describe a part of java SE memory invokes in garbage collection?

   A. Method areas
   B. Constant pools
   C. Null pointers
   D. The stack
   E. The heap

Ans: E