

DUMP STEP
Question & Answer

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Exam : **BCP-811**

Title : Developing Java
Applications for the
BlackBerry Platform

Version : Demo

1.Which block of code will ensure that a network connection has been closed? (Choose one.)

A.

```
HttpURLConnection conn = null;
OutputStream out = null;
InputStream in = null;
String URL = "http://www.blackberry.com";
try {
    conn = (HttpURLConnection)Connector.open(URL);
    out = conn.openOutputStream();
    in = conn.openInputStream();

} catch( IOException e ) {

} finally {
    if (in != null) {
        try {
            in.close();
        } catch (IOException e) {
        }
    }
    if (out != null) {
        try {
            out.close();
        } catch (IOException e) {
        }
    }
    if (conn != null) {
        try {
            conn.close();
        } catch (IOException e) {
        }
    }
}
```

B.

```
HttpURLConnection conn = null;
OutputStream out = null;
InputStream in = null;
String URL = "http://www.blackberry.com";
try {
    conn = (HttpURLConnection)Connector.open(URL);
    out = conn.openOutputStream();
    in = conn.openInputStream();

} catch( IOException e ) {

}
in.close();
out.close();
conn.close();
```

C C.

```
HttpConnection conn = null;
OutputStream out = null;
InputStream in = null;
String URL = "http://www.blackberry.com";
try {
    conn = (HttpConnection)Connector.open(URL);
    out = conn.openOutputStream();
    in = conn.openInputStream();

} catch( IOException e ) {

}

if (in != null) {
    try {
        in.close();
    } catch (IOException e) {
    }
}
```

C D.

```
HttpConnection conn = null;
OutputStream out = null;
InputStream in = null;
String URL = "http://www.blackberry.com";
try {
    conn = (HttpConnection)Connector.open(URL);
    out = conn.openOutputStream();
    in = conn.openInputStream();
} catch( IOException e ) {

} finally {
    if (in != null) {
        in.close();
    }
    if (out != null) {
        out.close();
    }
    if (conn != null) {
        conn.close();
    }
}
```

C E.

```
HttpConnection conn = null;
OutputStream out = null;
InputStream in = null;
String URL = "http://www.blackberry.com";
try {
    conn = (HttpConnection)Connector.open(URL);
    out = conn.openOutputStream();
    in = conn.openInputStream();

} catch( IOException e ) {
    if (in != null) {
        try {
            in.close();
        } catch (IOException e) {
        }
    }
    if (out != null) {
        try {
            out.close();
        } catch (IOException e) {
        }
    }
    if (conn != null) {
        try {
            conn.close();
        } catch (IOException e) {
        }
    }
}

if (in != null) {
    try {
        in.close();
    } catch (IOException e) {
    }
}

if (out != null) {
    try {
        out.close();
    } catch (IOException e) {
    }
}

if (conn != null) {
    try {
        conn.close();
    } catch (IOException e) {
    }
}

if (in != null) {
    try {
        in.close();
    } catch (IOException e) {
    }
}

if (out != null) {
    try {
        out.close();
    } catch (IOException e) {
    }
}

if (conn != null) {
    try {
        conn.close();
    } catch (IOException e) {
    }
}
}
```

- A. Exhibit A
- B. Exhibit B
- C. Exhibit C
- D. Exhibit D

E. Exhibit E

Answer: A

2.Consider the code below:

```
int width = Math.abs( ... );  
...  
int midpoint = width / 2;
```

What is a more efficient way of calculating the midpoint? (Choose one.)

- A. `int midpoint = (int) ((double) width) / 2.0;`
- B. `int midpoint = Fixed32.div(width, 2);`
- C. `int midpoint = (int) (width * 0.5f);`
- D. `int midpoint = width >> 1;`
- E. `int midpoint = width >> 2;`

Answer: D

3.Which two of the following operations should be avoided on the main event thread? (Choose two.)

- A. Pushing a screen onto the display stack
- B. Displaying a Dialog screen
- C. Performing network communication
- D. Calling the sleep method
- E. Capturing of keyboard input

Answer: C,D

4.A BlackBerry device application collects information about several hundred books. The application needs to sort books by title. Which combination of data structures should be used to manage the objects? (Choose one.)

- A. `net.rim.device.api.util.SimpleSortingVector` and `net.rim.device.api.util.StringComparator`
- B. `java.util.Hashtable` and `net.rim.device.api.util.StringComparator`
- C. `net.rim.device.api.util.StringRepository` and `net.rim.device.api.util.StringPattern`
- D. `java.util.TreeSet` and `net.rim.device.api.util.StringComparator`
- E. `java.util.Stack` and `net.rim.device.api.util.StringComparator`

Answer: A

5.An application receives notification that a new data object is being saved in the RuntimeStore. It may take up to 60 seconds to save this data. Which method should the application use to obtain the object from the RuntimeStore? (Choose one.)

- A. `get(long objectUID)`
- B. `getInstance()`
- C. `fetch(Class objectClass, long timeout)`
- D. `waitFor(long objectUID)`
- E. `put(long objectUID, Object anObject)`

Answer: D

6.The following application is set to auto-run at startup:

```
public final class TestApp extends UiApplication
{
    public static void main(String[] args)
    {
        UiApplication theApp = new TestApp();
        theApp.enterEventDispatcher();
    }

    public TestApp()
    {
        MainScreen mainScreen = new MainScreen();

        MenuItem menu = new MenuItem("Do Something",
            1, 1)
        {
            public void run()
            {
                MyThread myTh = new MyThread();
                myTh.start();
            }
        };
        mainScreen.addMenuItem(menu);
        pushScreen(mainScreen);
    }
}
```

Which approach would most reliably solve the problem this application will encounter? (Choose one.)

- A. It should call Thread.sleep() for ten seconds before pushing the screen to verify that the BlackBerry device has completed its boot up process
- B. Threads should be moved to their own standalone class so that they do not cause a security exception
- C. Theint values in the MenuItem constructor should equal the y MenuString length to leave enough room for the string
- D. It should use theApplicationManager.inStartup() before pushing the screen to verify that the BlackBerry device has completed its boot up process
- E. It should use theApplicationManager.inStartup() before pushing the screen to verify that the BlackBerry device has completed its boot up process
- F. It should use theApplicationManager.inStartup() before pushing the screen to verify that the BlackBerry device has completed its boot up process
- G. ThemakeMenu method of MainScreen must be overridden to use a menu

Answer: D,E,F

7.A developer is designing a BlackBerry device application that provides summaries of large amounts of data. The summaries require extensive computations. Which design approach will meet these requirements? (Choose one.)

- A. Store the full set of data locally on removable media using a compressed format

- B. Supplement memory available on the BlackBerry device and compute the results locally
- C. Use URL encodings to expedite the transfer of data between a remote server and the BlackBerry device
- D. Compute the summary on a remote server and access the results through a BlackBerry Enterprise Server connection
- E. Use local storage and the floating point processor on the BlackBerry device to speed up computations

Answer: B

8.A customer needs an application that will store temporary data and expose it to other BlackBerry device applications. Which API will meet this requirement? (Choose one.)

- A. RuntimeStore
- B. PersistentStore
- C. Location Based Services
- D. Global Events
- E. Connector

Answer: A

9.An application requires the creation of a custom field that can display animation. Which class and method combination should be used to accomplish this task? (Choose one.)

- A. Field.paint(Graphics graphics)
- B. MainScreen.paint(Graphics graphics)
- C. Field.subpaint(Graphics graphics)
- D. Screen.draw(Graphics graphics)
- E. GameCanvas.paint(Graphics graphics)

Answer: A

10.Consider the Counter class whose code is below:

```
1 public class Counter implements Runnable {
2     private static int _count;
3
4     public void run() {
5         for (int i=0; i<1000000; i++) {
6             _count++;
7         }
8     }
9
10    public static void go() throws InterruptedException {
11        _count = Integer.MAX_VALUE - 1000000;
12        Thread t1 = new Thread(new Counter());
13        Thread t2 = new Thread(new Counter());
14        t1.start(); t2.start();
15        t1.join(); t2.join();
16        System.out.println("FINAL COUNT: " + _count);
17    }
18 }
```

Assuming that the go() method is always invoked serially, why is a different count printed at the end almost every time that it is invoked? (Choose one.)

- A. Therun() method is not declared "synchronized"
- B. The _count variable is not declared "synchronized"
- C. The ++ operator is not atomic
- D. The _count variable overflows
- E. The Counter class is not declared "synchronized"

Answer: C

11.A developer is writing a game with custom graphics and animations that will need to fit on multiple screen sizes for various BlackBerry devices. The developer needs to minimize the number of images created for the game. Which API will support these requirements? (Choose one.)

- A. SVG
- B. Display
- C. Transition
- D. Multimedia
- E. Game

Answer: A

12.Which three of the following options are contained in a component pack? (Choose three.)

- A. BlackBerry Device Simulator
- B. JavaDocs
- C. API Library
- D. Code signing keys
- E. Unit Tests Framework

Answer: A,B,C

13.Which push header should be used to verify that push requests are received by a BlackBerry device application? (Choose one.)

- A. X-Rim-Push-Reliability: Transport
- B. X-RIM-Push-Deliver-Before Mon, 03 Aug 2009 15:52:00 GMT
- C. X-RIM-Push-Deliver-After: Mon, 03 Aug 2009 15:52:00 GMT
- D. X-Rim-Push-Priority: High
- E. X-Rim-Push-Reliability: Application

Answer: E

14.An application is needed that can store a list of sales data and customer information. The application will also need the ability to search through this data and summarize it in an efficient manner. Which data storage mechanism will assist in meeting all of these requirements? (Choose one.)

- A. SQLite
- B. PersistentStore
- C. RecordStore
- D. RuntimeStore
- E. FileConnection

Answer: D

15. Which two of the following classes could be used to check the coverage status? (Choose two.)

- A. Radio
- B. ConnectionFactory
- C. TransportInfo
- D. CoverageSate
- E. CoverageInfo

Answer: C,E

16. A developer has been asked to create an application that will display the full name of all people in a BlackBerry device user address book. The following code is written:

```
import javax.microedition.pim.*;

...

public static String getFirstName(Contact c)
{
    String[] contactName =
        c.getStringArray(Contact.NAME, 0);

    return contactName[Contact.NAME_FIRST];
}
```

Which two of the following actions must be taken before this code is executed to ensure compatibility across all versions of BlackBerry Device Software? (Choose two.)

- A. The application should initialize all entries of the contactName String array to empty Strings
- B. The application should use the Contact.countValues method to verify that the Contact.NAME field contains an entry
- C. The application should verify that it can write to the user address book using the ApplicationPermissions API
- D. The application should use the isNull method to verify that the Contact.NAME values are not null
- E. The application should use the ContactList.isSupportedField method to verify that the Contact.NAME field can be read

Answer: B,E

17. Consider the code below:

```

int[] dtt = {TransportInfo.TRANSPORT_MDS};

ConnectionFactory cf = new ConnectionFactory();

cf.setDisallowedTransportTypes(dtt);

// use the factory to get a connection
ConnectionDescriptor cd = cf.getConnection(URL);

if ( cd != null ) {

    ...

}

```

How will the connection route be affected? (Choose one.)

- A. The connection is never routed through the BlackBerry Infrastructure
- B. The connection is routed over the cellular network
- C. The connection is routed over the Wi-Fi
- D. The connection is routed over the BlackBerry Internet Service -B
- E. The connection is never routed through the BlackBerry Enterprise Server

Answer: E

18. Consider the addTask() method defined below. Its purpose is to receive incoming tasks and put them into a Vector, _tasks. Another thread will continuously remove the task at index 0 from the Vector.

```

1 public synchronized void addTask(Task task) {
2     int insertIndex = 0;
3     for (int i=0; i<_tasks.size(); i++) {
4         Task curTask = (Task) _tasks.elementAt(i);
5         if (curTask.priority < task.priority) {
6             insertIndex = i;
7             break;
8         }
9     }
10    _tasks.insertElementAt(task, insertIndex);
11    this.notify();
12 }

```

Assuming that addTask() is being invoked at a rate roughly equal to the rate at which the tasks are being processed, which concurrency issue may occur during execution? (Choose one.)

- A. Livelock
- B. Deadlock
- C. Race condition
- D. Starvation
- E. Unfairness

Answer: D

19. Consider the following small application which creates a linked list like structure:

After execution, at which statement does the ListElement object created at line 6 become a candidate for garbage collection? (Choose one.)

```
1 public class ListElement {
2     public Object _value;
3     public ListElement _next;
4
5     public static ListElement doListTest() {
6         ListElement first = new ListElement();
7         ListElement elem = first;
8
9         for (int i=0; i<20; i++) {
10            ListElement newElem = new ListElement();
11            newElem._value = Integer.toString(i+1);
12            elem._next = newElem;
13            elem = newElem;
14        }
15
16        first._next = elem;
17        return elem;
18    }
19
20    public static void main(String[] args) {
21        ListElement elem = doListTest();
22        elem._next = null;
23        elem = null;
24    }
25 }
```

- A. 16
- B. 17
- C. 21C.21
- D. 22D.22
- E. 23E.23

Answer: B

20. Which keys are required to use the encryption classes in the Java API in order to store encrypted data on a BlackBerry device? (Choose one.)

- A. Code development keys
- B. Code signing keys
- C. Code runtime keys
- D. Code encryption keys
- E. Code storage keys

Answer: B