1. Which of the following are true about JDBC API?

7/7 **(A)** Makes it possible to:
1) Establish a connection with a database
2) Send SQL statements
3) Process the results

3/7 **(B)** Provides metadata access, like column size and type.

4/7 **(C)** Hides the complexity of many data access tasks, i.e., doing most of the "heavy lifting"for the programmer behind the scenes.

4/7 **(D)** Uses URLs to identify database connections.

2. Which code snippet below will load the driver class file into RAM and make it available to your code?

0/7 **(A)** Statement statement = connection.createStatement();

3/7 **(B)** connection = DriverManager.getConnection(url);

2/7 **(C)** Class.forName("com.mysql.jdbc.Driver");

2/7 **(D)** JDBC.loadDriver("com.Oracle.jdbc.Driver");

3. The statement's executeUpdate() method returns:

2/7 **(A)** a result set from the database.

4/7 **(B)** an int for the number of rows updated.

1/7 **(C)** a boolean indicating a successful update.

0/7 **(D)** a String value of 0 or -1.

0/7 **(E)** void.

4. Which of the following are true of JSTL?

3/7 **(A)** Stands for Java Server Technology Library.

3/7 **(B)** Provides if logic.

5/7 **(C)** Provides foreach looping through all types of data collections.

1/7 **(D)** Cannot be combined with EL (Expression Language).

3/7 **(E)** Is case sensitive.

5. Which of the following is an example of JSP Expression Language (EL)?

4/7 **(A)** ${results.name}

0/7	(B)	<%= results.getName() %>
2/7	(C)	<% String name = results.getName(); %>
0/7	(D)	String name = results.getName();

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6. To use any of the JSTL libraries, you must include a <taglib> directive at the top of each JSP that uses the library.

7/7	(A)	True
0/7	(B)	False

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7. Which of the following are true of forwarding an HTTP Request to another resource?

5/7	(A)	Servlet or JSP uses the RequestDispatcher to transfer control.
3/7	(B)	Control is transferred entirely on the server. No network traffic is inolved.
3/7	(C)	The syntax to forward is: response.forwardRequest(url);
5/7	(D)	The user does not see the address of the destination JSP page.

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8. Which of the following are true of redirecting?

4/7	(A)	The syntax is: response.sendRedirect(url);
4/7	(B)	Servlets use HTTP to transfer control.
7/7	(C)	The user sees the address of the destination page and can bookmark it.
1/7	(D)	The transfer does not require additional network traffic.

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9. Which of the following are true of JavaBeans?

7/7	(A)	Are just regular java classes that follow special rules.
5/7	(B)	Represent the data in MVC.
5/7	(C)	Must have a zero argument constructor.
0/7	(D)	Should have only public instance variables.
0/7	(E)	Should not have getters or setters.

Review this code for a JavaBean.

If a JSP contained the following code: ${studentBean.age}, what does that code actually do?

10.

1/7	(A)	Calls the setAge() method.	
4/7	(B)	Calls the getAge() method.	
1/7	(C)	Accesses the age variable directly.	
1/7	(D)	Sets the age variable.	

```java
public class StudentsBean implements java.io.Serializable
{
    private String firstName = null;
    private String lastName = null;
    private int age = 0;

    public StudentsBean() {
    }
    public String getFirstName(){
        return firstName;
    }
    public String getLastName(){
        return lastName;
    }
    public int getAge(){
        return age;
    }
    public void setFirstName(String firstName){
        this.firstName = firstName;
    }
    public void setLastName(String lastName){
        this.lastName = lastName;
    }
    public void setAge(Integer age){
        this.age = age;
    }
}
```

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11. To track the number of visits (number of requests our application received) using a bean component, the bean should be stored in:

2/7	(A)	The Session.
1/7	(B)	The Request.
0/7	(C)	The Page.
3/7	(D)	The Servlet Context.

---

12. In MVC architecture, the optimal role of a JSP page is:

0/7	(A)	model
6/7	(B)	view
0/7	(C)	controller
1/7	(D)	both model and controller

---

13. In MVC architecture, the optimal role of a servlet is:

1/7	(A)	model, view and controller
0/7	(B)	view
0/7	(C)	model
5/7	(D)	controller
1/7	(E)	model and controller

---

14. JavaBeans have scope, just like all variables. Which of the following are valid scopes for a JavaBean in a JSP?

3/7	(A)	Page
2/7	(B)	Application
4/7	(C)	Servlet
5/7	(D)	Session
4/7	(E)	Request

---

15. Which of the following are techniques for Session Tracking?

7/7	(A)	Cookies

5/7	**B**	Hidden Form Fields
5/7	**C**	URL Rewriting
4/7	**D**	HttpSession API