1. Which of the following components is primarily used to handle HTTP requests and generate dynamic web content in Java EE?
A) Enterprise JavaBeans (EJB)
B) Java Persistence API (JPA)
C) Java Message Service (JMS)
D) Servlets

2. What is the correct order of the primary lifecycle methods for a Servlet?
A) `service()`, `init()`, `destroy()`
B) `init()`, `service()`, `destroy()`
C) `init()`, `destroy()`, `service()`
D) `destroy()`, `service()`, `init()`

3. In a Servlet's lifecycle, the `init()` method is called:
A) Every time a request is received.
B) Only once when the Servlet is first loaded/initialized by the web container.
C) When the application server shuts down.
D) When the user closes their web browser.

4. How does a developer map a specific URL pattern to a Servlet class in a Java EE application?
A) Using the `<servlet-mapping>` and `<servlet>` elements in `web.xml`, or the `@WebServlet` annotation.
B) By defining the mapping in a properties file.
C) By configuring the server's hosts file.
D) Using only the `doGet()` or `doPost()` methods in the Servlet code.

5. Which method of the `HttpServletRequest` interface is used to retrieve the value of a single request parameter submitted via a form or query string?
A) `getAttribute()`
B) `getParameter()`
C) `getSession()`
D) `getCookies()`

6. What is the primary purpose of the `HttpServletResponse` object in a Servlet's `service()` method (or `doGet`/`doPost`)?
A) To read incoming form data and headers.
B) To forward the request to another resource.

C) To manage user session information.

D) To construct and send the response back to the client (e.g., setting headers, writing HTML).

7. When using the `RequestDispatcher` method `forward(request, response)`, how is the control transferred to another resource (like a JSP or another Servlet)?

A) The client's browser is instructed to issue a new request (a redirect).

B) The control is passed internally on the server side; the client is unaware of the change in resource.

C) A new thread is started for the target resource, and the current request terminates immediately.

D) The `web.xml` file is reloaded to determine the new destination.

8. In `web.xml`, what configuration element is typically used to specify the fully qualified class name of a Servlet?

A) `<url-pattern>`

B) `<servlet-name>`

C) `<servlet-class>`

D) `<mapping-name>`

9. Which interface represents the main contract between a Servlet container and a Servlet instance, defining methods like `init()`, `service()`, and `destroy()`?

A) `javax.servlet.http.HttpServlet`

B) `java.io.Serializable`

C) `javax.servlet.Servlet`

D) `javax.servlet.RequestDispatcher`

10. You need to read a request parameter named "username". Which code snippet correctly achieves this within an `HttpServlet` method?

A) `String user = request.getAttribute("username");`

B) `String user = response.getParameter("username");`

C) `String user = request.getParameter("username");`

D) `String user = request.getSession().getAttribute("username");`

Answer Key

1. D) Servlets

2. B) `init()`, `service()`, `destroy()`

3. B) Only once when the Servlet is first loaded/initialized by the web container.

4. A) Using the `<servlet-mapping>` and `<servlet>` elements in `web.xml`, or the `@WebServlet` annotation.

5. B) `getParameter()`

6. D) To construct and send the response back to the client (e.g., setting headers, writing HTML).

7. B) The control is passed internally on the server side; the client is unaware of the change in resource.

8. C) `<servlet-class>`

9. C) `javax.servlet.Servlet`

10. C) `String user = request.getParameter("username");`