

# 29 Lecture - CS506

## Important Mcqs

Absolutely, here are 10 multiple-choice questions (MCQs) related to advanced topics in Servlets, along with their solutions and multiple options:

**Question 1:** What is the purpose of session management in servlets?

Options:

- A) Managing servlet lifecycle
- B) Handling multiple servlet requests
- C) Maintaining user-specific data across requests
- D) Cleaning up resources in servlets

**Solution:** C) Maintaining user-specific data across requests

**Question 2:** Which interface is used to create and manage sessions in servlets?

Options:

- A) `HttpSession``
- B) `SessionManager``
- C) `UserSession``
- D) `SessionHandler``

**Solution:** A) `HttpSession``

**Question 3:** What is the role of a servlet filter?

**\*\*Options:\*\***

- A) Processing user inputs in servlets
- B) Handling HTTP requests and responses
- C) Preprocessing and postprocessing requests and responses
- D) Managing session data in servlets

**\*\*Solution:\*\* C) Preprocessing and postprocessing requests and responses**

**\*\*Question 4:\*\* Which method is used to apply a filter to a specific URL pattern in a servlet?**

**\*\*Options:\*\***

- A) `addFilter()`
- B) `applyFilter()`
- C) `setFilter()`
- D) `addFilterMapping()`

**\*\*Solution:\*\* D) `addFilterMapping()`**

**\*\*Question 5:\*\* What is the purpose of a servlet listener?**

**\*\*Options:\*\***

- A) Managing servlet lifecycle
- B) Handling session data
- C) Monitoring client requests
- D) Responding to events in a web application

**\*\*Solution:\*\* D) Responding to events in a web application**

**\*\*Question 6:\*\* Which listener is used to track attribute changes in the `HttpSession`?**

**\*\*Options:\*\***

- A) `SessionAttributeListener`
- B) `ServletContextListener`
- C) `RequestListener`
- D) `RequestAttributeListener`

**\*\*Solution:\*\* A) `SessionAttributeListener`**

**\*\*Question 7:\*\* How does a servlet interact with a database using JDBC?**

**\*\*Options:\*\***

- A) By sending SQL queries via GET requests
- B) By directly embedding SQL in the servlet code
- C) By using a separate configuration file for database connection
- D) By invoking JDBC methods to connect, query, and update the database

**\*\*Solution:\*\* D) By invoking JDBC methods to connect, query, and update the database**

**\*\*Question 8:\*\* Which interface is used to represent a database connection in JDBC?**

**\*\*Options:\*\***

- A) `Connection`
- B) `Database`
- C) `SqlConnection`
- D) `DbConnection`

**\*\*Solution:\*\* A) `Connection`**

**\*\*Question 9:\*\*** What is the purpose of the `contextInitialized()` method in `ServletContextListener`?

**\*\*Options:\*\***

- A) Initializing servlet resources
- B) Handling session events
- C) Executing before a servlet is initialized
- D) Executing after a servlet is destroyed

**\*\*Solution:\*\*** C) Executing before a servlet is initialized

**\*\*Question 10:\*\*** How can you handle exceptions globally in a servlet application?

**\*\*Options:\*\***

- A) By using try-catch blocks in every servlet
- B) By setting a global exception handler in the `web.xml` file
- C) By utilizing servlet filters to catch and handle exceptions
- D) By embedding exception handling code in the `init()` method

**\*\*Solution:\*\*** B) By setting a global exception handler in the `web.xml` file