

# 28 Lecture - CS506

## Important Mcqs

Of course, here are 10 multiple-choice questions (MCQs) related to the Servlets Lifecycle, along with their solutions and multiple options:

**\*\*Question 1:\*\*** Which method is called when a servlet is first loaded into memory?

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

A) `start()`

B) `init()`

C) `begin()`

D) `initialize()`

**\*\*Solution:\*\*** B) `init()`

**\*\*Question 2:\*\*** During which phase of the Servlets Lifecycle is the `init()` method called?

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

A) Initialization phase

B) Service phase

C) Execution phase

D) Destruction phase

**\*\*Solution:\*\*** A) Initialization phase

**\*\*Question 3:\*\*** Which method is responsible for processing client requests and generating responses in a servlet?

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

- A) ``process()``
- B) ``respond()``
- C) ``service()``
- D) ``execute()``

**\*\*Solution:\*\* C) ``service()``**

**\*\*Question 4:\*\* What is the purpose of the ``service()`` method in the Servlets Lifecycle?**

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

- A) Initializing servlet resources
- B) Handling client requests
- C) Releasing allocated memory
- D) Invoking the ``destroy()`` method

**\*\*Solution:\*\* B) Handling client requests**

**\*\*Question 5:\*\* Which HTTP methods are typically handled by the ``service()`` method in servlets?**

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

- A) GET and POST
- B) PUT and DELETE
- C) HEAD and OPTIONS
- D) PATCH and TRACE

**\*\*Solution:\*\* A) GET and POST**

**\*\*Question 6:\*\*** When is the `service()` method called during the Servlets Lifecycle?

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

- A) Only once during initialization
- B) Every time a client request is received
- C) Only during the destruction of the servlet
- D) Whenever there's an error in the application

**\*\*Solution:\*\*** B) Every time a client request is received

**\*\*Question 7:\*\*** Which method is used to release resources and perform cleanup operations when a servlet is being removed?

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

- A) `terminate()`
- B) `cleanUp()`
- C) `destroy()`
- D) `dispose()`

**\*\*Solution:\*\*** C) `destroy()`

**\*\*Question 8:\*\*** When does the `destroy()` method of a servlet get called?

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

- A) After the `init()` method
- B) Before the `service()` method
- C) After the `service()` method
- D) Before the `init()` method

**\*\*Solution:\*\* C) After the `service()` method**

**\*\*Question 9:\*\* What happens to a servlet instance after the `destroy()` method is called?**

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

- A) It remains in memory indefinitely.
- B) It is immediately removed from memory.
- C) It is kept in memory but becomes inactive.
- D) It becomes available for garbage collection.

**\*\*Solution:\*\* B) It is immediately removed from memory.**

**\*\*Question 10:\*\* Which of the following is the correct sequence of methods in the Servlets Lifecycle?**

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

- A) `init()`, `service()`, `destroy()`
- B) `init()`, `destroy()`, `service()`
- C) `service()`, `init()`, `destroy()`
- D) `destroy()`, `init()`, `service()`

**\*\*Solution:\*\* A) `init()`, `service()`, `destroy()`**