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 t	to a servlet insta	nce after the `e	destroy()`	method is called?
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- **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?

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

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