New York University
CSCI-UA.0202-003: Operating Systems (Undergrad): Spring 2025

Quiz 8

- Write your full name on both:

    - the bubble sheet in the "Name" field
    - the quiz booklet

- Write your NYU NetID on the quiz booklet and the bubble sheet in the "ID" field

- Use a #2 pencil to fill in your answers on the bubble sheet

- This quiz contains 8 questions only. Each question has choices from A to D

- Fill the bubbles completely by darkening the entire circle, as shown in the example

- Only mark answers for questions 1-8. Do not mark any bubbles beyond question 8

- Choose only one answer per question

- Submit your bubble sheet together with your exam booklet

Name:

NetId:

1. What is the primary mechanism that allows NFS to operate across a network?
   (a) Virtual File System
   (b) Remote Procedure Call
   (c) External Data Representation
   (d) Network Socket API

2. What does "statelessness" mean in the context of NFS?
   (a) The server doesn't retain any information about previous requests
   (b) The client doesn't need to authenticate for each request
   (c) The file system doesn't track file modification times
   (d) Network connections are terminated after each operation

3. Which of these is NOT an idempotent operation in NFS?
   (a) `READ`
   (b) `LOOKUP`
   (c) `MKDIR`
   (d) `GETATTR`

4. Which NFS consistency model is implemented by default?
   (a) Strong consistency
   (b) Eventual consistency
   (c) Close-to-open consistency
   (d) Session consistency

5. In a stack smashing attack, what critical piece of information does the attacker typically aim to overwrite?
   (a) The stack canary value
   (b) The program's heap pointer
   (c) The return address on the stack
   (d) The function's local variables

6. What is a "NOP-sled" used for in a buffer overflow attack?
   (a) To prevent stack smashing detection
   (b) To increase the size of the target area for the exploit
   (c) To bypass memory protection mechanisms
   (d) To corrupt memory management structures

7. Which source code did Ken Thompson modify in his "Trusting Trust" attack demonstration?
   (a) The login program
   (b) The C compiler
   (c) The operating system kernel
   (d) The network stack

8. Where did Ken Thompson first present his "Trusting Trust" ideas?
   (a) In a computer science journal
   (b) At a security conference
   (c) As his Turing Award acceptance lecture
   (d) In a government security advisory