1. Discuss the differences between physical switches and virtual switches.
   - Physical: Has a fixed number of ports, managed through physical interfaces, and higher performance due to dedicated hardware for it.
   - Virtual: Can have/add multiple ports by just adding more, Easier to configure through software, Can be used within multiple virtual machines.

2. Compare a production checkpoint to a standard checkpoint. What are the benefits of one over the other, and what are the situations where each would be used?
   - Comparison: They both create a snapshot of the VM
   - Benefits
     - Production: Makes sure that all data is not corrupted and is consistent. This makes it better for productive environments.
     - Standard: Faster and uses less hardware. This makes it best for non-productive environments.

3. Why should an administrator spread Flexible Single Master Operations (FSMO) roles within a forest and domains amongst different domain controllers?
   - First, it helps distribute the load among all domain controllers. It all makes sure that if one domain controller goes down, it doesn't impact all of the FSMO roles.

4. What are the advantages and disadvantages of using a read-only domain controller (RODC).
   - Advantages: Helps with security by giving lower permissions to a higher security risk. Only certain people can interact with the file.

- ○ Disadvantages: Relies on someone with a higher permission to make changes within their system. Also Cannot interact with their directory unless it is to read

5. Describe the pretext Chris and his team used during their penetration test in Jamaica and how they got access to the bank's ATM testing center.
    - ○ Chris and his team used the fact that there was an audit on the bank to get in. He dressed the part and faked a cell phone call acting like he was talking to someone important to walk past the security. After that, he just told everyone he was there from the audit company to get in.

6. Explain three of the five key strategies that the client could have implemented to prevent the first Bank in Jamaica from being hacked.
    - ○ Enforce security to ID check and verify contacts at the door or even before they get close to the parking lot.
    - ○ Close all laptops and take all ID badges going away from workstations
    - ○ Make sure all doors close behind you. Everyone must badge themselves in.

7. Give an overview of what transpired when the human hackers pretending to be pest control workers.
    - ○ They went to scope out the place and realized they could slip in flash drives through the door slots. They did but one was in the door they never use so it was reported. When they went the next time, when they were ready, they were apprehended and stopped by the police. Ultimately, they had to give up the act and fail before they got in.