

TEMA 2

Il candidato discuta una delle seguenti tracce:

1. What are the key security challenges in distributed systems and networks? Discuss the threats and vulnerabilities associated with distributed systems and the techniques used to mitigate them, including encryption, authentication, and access control.
2. Discuss the concept of virtual private networks (VPNs) and their role in securing remote access to networks.
3. Discuss differences between Kernel-level and user-level operations in the Linux operating system.

TEMA 3

Il candidato discuta una delle seguenti tracce:

1. Explain the terms authentication, authorization, and accounting (AAA) in the context of network security. Why are they essential for securing access to network resources?
2. Describe the concept of Virtual Local Area Networks (VLANs) and their role in network design. How do VLANs enhance network scalability, security, and performance?
3. Discuss the performance characteristics of Python and C/C++ programming languages. Explain the factors that contribute to the runtime performance of programs written in each language, including compilation, interpretation, and execution models.