

- 10%** **6.0 Automation and Programmability**
- 6.1 Explain how automation impacts network management
- 6.2 Compare traditional networks with controller-based networking
- 6.3 Describe controller-based, software defined architecture (overlay, underlay, and fabric)
 - 6.3.a Separation of control plane and data plane
 - 6.3.b Northbound and Southbound APIs
- 6.4 Explain AI (generative and predictive) and machine learning in network operations
- 6.5 Describe characteristics of REST-based APIs (authentication types, CRUD, HTTP verbs, and data encoding)
- 6.6 Recognize the capabilities of configuration management mechanisms such as Ansible and Terraform
- 6.7 Recognize components of JSON-encoded data