Designing Cisco Enterprise Networks v1.0 (300-420)	OCG	Video
1.0 Advanced Addressing and Routing Solutions (25%)		
		Design IPv4 Addressing Plans
1.1 Create structured addressing plans for IPv4 and IPv6	1, 2	Design IPv6 Addressing Plans
1.6 Determine IPv6 migration strategies	2	IPv6 Migration Designs
1.6.a Overlay (tunneling)	2	
1.6.b Native (dual-stacking)	2	
1.6.c Boundaries (IPv4/IPv6 translations)	2	
1.3 Create stable, secure, and scalable routing designs for EIGRP	3	EIGRP Routing Designs
		IS-IS Routing Designs
		IS-IS: The Routing Protocol You Never Knew
1.2 Create stable, secure, and scalable routing designs for IS-IS	3	IS-IS: Configuration
1.4 Create stable, secure, and scalable routing designs for OSPF	4	OSPF Routing Designs
1.5 Create stable, secure, and scalable routing designs for BGP	4	
1.5.a Address families	4	BGP Address Families
1.5.b Basic route filtering	4	BGP Route Filtering Techniques
1.5.c Attributes for path preference	4	BGP Attributes for Path Preference
1.5.d Route reflectors	4	BGP Route Reflectors
1.5.e Load sharing	4	BGP Load Sharing
2.0 Advnaced Enterprise Campus Networks (25%)		
2.3 Design multicampus Layer 3 infrastructures		
2.3.d Route summarization	7, 4	
2.3.g Redistribution	4	
2.3.c Route filtering	7, 4	
2.3.e VRFs	4	
2.1 Design campus networks for high availability		
2.1.d BFD	4	BFD
2.1.c Graceful restart	4	
4.0 Network Services (20%)		
4.4 Describe multicast routing concepts (source trees, shared trees, RPF, rendezvous points)	5	Describe Multicast Routing Concepts
4.5 Design multicast services (SSM, PIM bidirectional, MSDP)	5	Design Multicast Services
4.3 Design network management techniques	5	Designing Network Management
4.3.a In-band vs. out-of-band	5	
4.3.c Prioritizing network management traffic	5	
4.3.b Segmented management networks	5	
2.0 Advnaced Enterprise Campus Networks (25%)		
2.2 Design campus Layer 2 infrastructures	6	Design Layer 2 Infrastructures
2.2.d PoE and WoL	6	
2.2.a STP scalability	6	
2.2.a Fast convergence	6	
2.2.c Loop-free technologies	6	
2.1 Design campus networks for high availability	7	Design for High Availability
2.1.a First Hop Redundancy Protocols	7	
2.3 Design multicampus Layer 3 infrastructures	7	
2.3.a Convergence	7	
2.3.b Load sharing	7	
2.3.f Optimal topologies	7	

3.0 WAN for Enterprise Networks (20%)

3.1 Compare WAN connectivity options		Compare WAN Connectivity Options
3.1.a Layer 2 VPN	8	
3.1.b MPLS Layer 3 VPN	8	
3.1.c Metro Ethernet	8	
3.1.d DWDM	8	
3.1.e 4G/5G	8	
3.1.f SD-WAN customer edge	8, 11	
3.1 Compare WAN connectivity options	8	
3.2 Design site-to-site VPN	8	Site-to-Site VPN Designs
3.2.d IPsec	8	
3.2.a Dynamic Multipoint VPN (DMVPN)	8	
3.2.b Layer 2 VPN	8	
3.2.c MPLS Layer 3 VPN	8	
3.2.e Generic Routing Encapsulation (GRE)	8	
3.2.f Group Encrypted Transport VPN (GET VPN)	8	
3.3 Design high availability for enterprise WAN	9	Designing HA WANs
3.3.a Single-homed	9	
3.3.b Multihomed	9	
3.3.c Backup connectivity	9	
3.3.d Failover	9	

4.0 Network Services (20%)

4.1 Select appropriate QoS strategies to meet customer requirements (DiffServ, IntServ)	9	QoS Strategies
4.2 Design end-to-end QoS policies	9	End-to-End QoS Design
4.3.a Classification and marking	9	
4.3.b Shaping	9	
4.3.c Policing	9	
4.3.d Queuing	9	

2.0 Advnaced Enterprise Campus Networks (25%)

2.4 Describe SD-Access Architecture:	10	SD Access Underlay and Overlay
underlay	10	
overlay	10	
control and data plane	10	
automation	10	
wireless	10	
security	10	
2.5 Describe SD-Access fabric design considerations for wired and wireless access:	10	SD-Access Design Best Practices
overlay	10	
fabric design	10	
control plan design	10	
border design	10	
segmentation	10	
virtual networks	10	
scalability	10	
over the top and fabric for wireless	10	
multicast	10	

3.0 WAN for Enterprise Networks (20%)

3.4 Describe Cisco SD-WAN Architecture:	11	The SD-WAN Architecture
orchestration plane	11	
management plane	11	
control plane	11	
data plane	11	
on-boarding and provisioning	11	
security	11	
3.5 Describe Cisco SD-WAN design considerations:	11	SD-WAN Design Best Practices
control plane design	11	
overlay design	11	
LAN design	11	
high availability	11	
redundancy	11	
scalability	11	
security design	11	
QoS and multicast over SD-WAN fabric	11	

5.0 Automation (10%)

5.1 Choose the correct YANG data model set based on requirements	12	Choosing the Correct YANG Model
5.3 Differentiate between NETCONF and RESTCONF	12	NETCONF versus RESTCONF
5.2 Differentiate between IETF, Openconfig, and Cisco native YANG models	12	
5.4 Describe the impact of model-driven telemetry on the network	12	Model-Driven Telemetry
5.4.a Periodic publication	12	
5.4.b On-change publication	12	
5.5 Compare dial-in and dial-out approaches to model-driven telemetry	12	