Designing for Cisco Internetwork Solutions Exam (640-864)

Exam Description: The "Designing for Cisco Internetwork Solutions Exam" (DESGN) v1.1 640-864 exam is a 75-minute test with 45–65 questions that are associated with the Cisco CCDA® Design certification. This exam requires a foundation or apprentice knowledge of network design for the Cisco converged networks based on borderless network architecture. CCDA certified professionals can design routed and switched network infrastructures and services involving LAN, WAN, wireless, and broadband access for businesses and organizations.

The following topics are general guidelines for the content that is likely to be included on the exam. However, other related topics may also appear on any specific instance of the exam. To better reflect the contents of the exam and for clarity purposes, these guidelines may change at any time without notice.

10%	**1.0**	**Describe the Methodology Used to Design a Network**
	1.1	Describe developing business trends
	1.2	Identify network requirements to support the organization
	1.3	Describe the tools and process to characterize an existing network
	1.4	Describe the top-down approach to network design
	1.5	Describe network management protocols and features
13%	**2.0**	**Describe Network Structure and Modularity**
	2.1	Describe the network hierarchy
	2.2	Describe the modular approach in network design
	2.3	Describe network architecture for the enterprise
27%	**3.0**	**Design Basic Enterprise Campus Networks**
	3.1	Describe campus design considerations
	3.2	Design the enterprise campus network
	3.3	Design the enterprise data center
	3.4	Describe enterprise network virtualization tools
10%	**4.0**	**Design Enterprise Edge and Remote Network Modules**
	4.1	Describe the enterprise edge, branch, and teleworker design characteristics
	4.2	Describe physical and logical WAN connectivity
	4.3	Design branch office WAN solutions
	4.4	Describe access network solutions for a remote worker
	4.5	Design the WAN to support selected redundancy methodologies
	4.6	Identify design considerations for a remote data center
21%	**5.0**	**Design IP Addressing and Routing Protocols**
	5.1	Describe IPv4 addressing
	5.2	Describe IPv6 addressing

5.3 Identify routing protocol considerations in an enterprise network
5.4 Design a routing protocol deployment

19% 6.0 Design Network Services

6.1 Describe the security lifecycle
6.2 Identify Cisco technologies to mitigate security vulnerabilities
6.3 Select appropriate Cisco security solutions and deployment placement
6.4 Describe high-level voice and video architectures
6.5 Identify the design considerations for voice and video services
6.6 Describe Cisco Unified Wireless Network architectures and features
6.7 Design a wireless network using controllers