# New Questions Exam 640-864

**Exam A**

**QUESTION 1**
You are asked to design a new branch office that will need to support 25 users. These users will be using an ISP connection and will need to connect to the main office for network services.Which two Cisco devices are the most appropriate to fulfill all of these requirements? (Choose two.)

A. Cisco IPS
B. Cisco ISR G2
C. Cisco ASA
D. Cisco 2960
E. Cisco CRS-1
F. Cisco ACS

**Correct Answer:** BC
**Section: (none)**
**Explanation**

**Explanation/Reference:**


**QUESTION 2**
Which factor would be most influential in choosing multimode fiber optic connections overUTP?

A. signal attenuation
B. required bandwidth
C. required distance
D. electromagnetic interference
E. cost

**Correct Answer:** C
**Section: (none)**
**Explanation**

**Explanation/Reference:**


**QUESTION 3**
What are the three modes of unicast reverse path forwarding? (Choose three.)

A. strict
B. loose
C. VRF
D. global
E. PIM
F. local

**Correct Answer:** ABC
**Section: (none)**
**Explanation**

**Explanation/Reference:**

**QUESTION 4**
**Which network access control technology is recommended to use with Layer 2 accesslayer switches?**

A. 802.1q
B. 802.1x
C. 802.3af
D. 802.3q
E. 802.11n

**Correct Answer:** B
**Section: (none)**
**Explanation**

**Explanation/Reference:**

**QUESTION 5**
**Refer to the list of requirements. Which IP telephony design model should you implement to fulfill these requirements? – Must be a single, large location with many remote sites must have multisite WAN connectivity – requires SRST for call processing redundancy**

A. centralized
B. distributed
C. clustered
D. decentralized

**Correct Answer:** A
**Section: (none)**
**Explanation**

**Explanation/Reference:**


**QUESTION 6**
**Which voice codec should you use in order to provide toll quality calls?**

A. G.711
B. G.718
C. G.722
D. G.729

**Correct Answer:** A
**Section: (none)**
**Explanation**

**Explanation/Reference:**


**QUESTION 7**
**Which technology enables WLCs to peer with each other to enable roaming support?**

A. WAP profiles
B. roaming profiles
C. mobility groups
D. peer groups

**Correct Answer:** C
**Section: (none)**
**Explanation**

**Explanation/Reference:**

**QUESTION 8**
**When designing the infrastructure protection portion for the enterprise edge, which solution would be the most appropriate solution to consider?**

A. 802.1X
B. ACLs in the core layer
C. Cisco Security MARS
D. AAA

**Correct Answer:** D
**Section: (none)**
**Explanation**

**Explanation/Reference:**

**QUESTION 9**
**Which Cisco device has the sole function at looking at threat detection and mitigation at the Enterprise edge?**

A. Cisco IOS router
B. Cisco ASA
C. Cisco Catalyst FWSM
D. Cisco IPS

**Correct Answer:** D
**Section: (none)**
**Explanation**

**Explanation/Reference:**

**QUESTION 10**

**Which three of these are layers in the Cisco SONA Architecture? (Choose three.)**

A.  Applications
B.  Physical Infrastructure
C.  Presentation
D.  Integrated Transport
E.  Core Common Services
F.  Networked Infrastructure

**Correct Answer:** ABE
**Section: (none)**
**Explanation**

**Explanation/Reference:**


**QUESTION 11**
**Which three statements are true regarding the virtual interface on a Cisco Wireless LAN Controller? (Choose three.)**

A.  supports mobility management
B.  serves as a DHCP relay
C.  used for all controller to AP communication
D.  supports embedded Layer 3 security
E.  default for out-of-band management
F.  default for in-band management
G.  provides connectivity to AAA servers

**Correct Answer:** ABD
**Section: (none)**
**Explanation**

**Explanation/Reference:**


**QUESTION 12**
**Which WAN technology is a cost-effective method to deliver 100Mb of bandwidth to multiple branch offices?**

A.  DSL

B. DWDM

C. ISDN

D. Metro Ethernet

**Correct Answer:** D
**Section: (none)**
**Explanation**

**Explanation/Reference:**

**QUESTION 13**
**A company is implementing an Identity Management solution with these characteristics:**
**1) existing AAA Server 2) Cisco Catalyst switches 3) minimal added investments**
**Which Cisco Trust and Identity Management solution would you recommend?**

A. NAC Appliance

B. Cisco IBNS

C. CSM

D. Cisco Security MARS

**Correct Answer:** B
**Section: (none)**
**Explanation**

**Explanation/Reference:**

**QUESTION 14**
**Which two devices would you place in your DMZ to ensure enterprise edge security? (Choose two.)**

A. IPS

B. NAC

C. ASA

D. ACS

E. WCS

**Correct Answer:** AC

**QUESTION 15**
**Which two design approaches provide management of enterprise network devices? (Choose two.)**

A. in-band
B. out-of-line
C. out-of-band
D. in-line

**Correct Answer:** AC

**QUESTION 16**
**When considering the three VoIP design models – single site, centralized multisite, and distributed multisite which question below would help to eliminate one of the options?**

A. Will the switches be required to provide inline power?
B. Will users need to make offsite calls, beyond the enterprise?
C. Will users require applications such as voice mail and interactive voice response?
D. Are there users whose only enterprise access is via a QoS-enabled WAN?

**Correct Answer:** D

**Explanation**

**Explanation/Reference:**

**QUESTION 17**
**Which three are security services offered through Cisco Router Security? (Choose three.)**

A. Trust and Identity
B. Integrated Threat Control
C. Unified Wireless Network Security Solution
D. Secure Connectivity
E. Voice-Messaging Security
F. Endpoint Security
G. Virtual Security Gateway

**Correct Answer:** ABD
**Section: (none)**
**Explanation**

**Explanation/Reference:**

**QUESTION 18**
**Which three are features of LWAPP? (Choose three.)**

A. firmware synchronization
B. local management of APs
C. configuration changes manually synced
D. encryption of control channel
E. configuration data only on the WLC
F. wireless control free operation
G. replaces 802.1x for authentication in wireless connections

**Correct Answer:** ADE
**Section: (none)**
**Explanation**

**Explanation/Reference:**

**QUESTION 19**
**A campus network needs end-to-end QoS tools to manage traffic and ensure voice quality. Which three types of QoS tools are needed? (Choose three.)**

A. interface queuing and scheduling
B. congestion management
C. compression and fragmentation
D. bandwidth provisioning
E. traffic classification
F. buffer management

**Correct Answer:** ADE
**Section: (none)**
**Explanation**

**Explanation/Reference:**

**QUESTION 20**
**Which is the equation used to derive a 64 Kbps bit rate?**

A. 2 x 8 kHz x 4-bit code words
B. 8 kHz x 8-bit code words
C. 2 x 4-bit code words x 8 kHz
D. 2 x 4 kHz x 8-bit code words

**Correct Answer:** D
**Section: (none)**
**Explanation**

**Explanation/Reference:**

**QUESTION 21**
**What routing protocol requires full mesh between internal peers in an enterprise network?**

A. OSPF

B. EIGRP

C. BGP

D. ISIS

E. RIP

**Correct Answer:** C
**Section: (none)**
**Explanation**

**Explanation/Reference:**

**QUESTION 22**
**An application uses broadcast traffic to send data to IPv4 hosts. How can the application communicate using IPv6?**

A. Anycast

B. Unicast

C. Broadcast

D. Multicast

**Correct Answer:** D
**Section: (none)**
**Explanation**

**Explanation/Reference:**

**QUESTION 23**
**A network engineer is using the Cisco enterprise architecture model. In what module do network management servers reside?**

A. Enterprise Campus

B. Enterprise Edge

C. Remote Modules

D. SP Edge WAN/internet

**Correct Answer:** A
**Section: (none)**

**Explanation**

**Explanation/Reference:**

**QUESTION 24**
**What technology can secure data over an insecure medium and provide WAN redundancy in the event of a primary connection failure?**

A. virtual private network
B. shadow PVC
C. dial-up ISDN
D. GRE Tunnel

**Correct Answer:** A
**Section: (none)**
**Explanation**

**Explanation/Reference:**

**QUESTION 25**
**In which network location should an external DNS server be placed?**

A. campus data center
B. enterprise branch
C. internet
D. remote access

**Correct Answer:** C
**Section: (none)**
**Explanation**

**QUESTION 26**
**When evaluating network designs, what indicator demonstrates that the modular approach was followed?**

A. ability to scale
B. follows best practices
C. redundant connectivity
D. easy to deploy

**Correct Answer:** A
**Section: (none)**
**Explanation**

**Explanation/Reference:**


**QUESTION 27**
**During the design of a new campus network, the customer requests the ability to route overlapping IP addresses. What technology can be leveraged to meet this request?**

A. VRF
B. VLANs
C. VSS
D. VPC

**Correct Answer:** A
**Section: (none)**
**Explanation**

**Explanation/Reference:**


**QUESTION 28**
**A network engineer is following the three tiered Network Hierarchical Model. At which tier is route summarization implemented?**

A. core

B. distribution

C. backbone

D. access

**Correct Answer:** B
**Section: (none)**
**Explanation**

**Explanation/Reference:**

**QUESTION 29**
**A customer wants to support a BYOD environment. What two products allow for posture assessment? (Choose two.)**

A. ACS

B. NAC

C. ASA

D. ISE

E. WAAS

F. IDS

**Correct Answer:** BD
**Section: (none)**
**Explanation**

**Explanation/Reference:**

**QUESTION 30**
**What device virtualization technology allows for a single point of management and a centralized routing instance?**

A. ACE

B. VSS

C. VDC

D. VM

**Correct Answer:** B
**Section: (none)**

**Explanation**

**Explanation/Reference:**

**QUESTION 31**
**What three design requirements are key to designing a campus core? (Choose three.)**

A. low latency
B. access control
C. traffic filtering
D. high speed
E. redundant links
F. QoS tagging

**Correct Answer:** ADE
**Section: (none)**
**Explanation**

**Explanation/Reference:**

**QUESTION 32**
**A network engineer must implement a design where LAN clients are to connect to various access layer devices, while remaining on the same VLAN .
What type of design would support this requirement?**

A. routed
B. switched
C. tunneled
D. virtual

**Correct Answer:** B
**Section: (none)**
**Explanation**

**Explanation/Reference:**

**QUESTION 33**

A company has dark fiber between headquarters and its data center. It is presently configured as a 10GbE connection. Network utilization shows high utilization on the connection. What technology can be implemented to increase capacity without acquiring another circuit?

A. MPLS

B. DWDM

C. VPLS

D. DMVPN

**Correct Answer:** B
**Section: (none)**
**Explanation**

**Explanation/Reference:**

**QUESTION 34**
**To what Layer 2 technology does VRF closely compare?**

A. VSS

B. VPC

C. VLAN

D. VTP

**Correct Answer:** C
**Section: (none)**
**Explanation**

**Explanation/Reference:**

**QUESTION 35**
**What two performance considerations must be taken into account when designing a remote worker access solution? (Choose two.)**

A. simultaneous VPN connections

B. port density

C. throughput capacity

D. packet size

E. latency

**Correct Answer:** AC
**Section: (none)**
**Explanation**

**Explanation/Reference:**

**QUESTION 36**
**165 What three customer supported details identifies network requirements based on the PPDIOO design model? (Choose three.)**

A. goals
B. budget
C. user needs
D. locations
E. policies
F. tasks

**Correct Answer:** ABC
**Section: (none)**
**Explanation**

**Explanation/Reference:**

**QUESTION 37**
**What submodule is found within the Enterprise Edge module?**

A. enterprise WAN
B. remote branch
C. campus IPS

D.  building distribution

**Correct Answer:** A
**Section: (none)**
**Explanation**

**Explanation/Reference:**


**QUESTION 38**
**An engineer receives a resource utilization alert on a router. What command should be used to investigate the issue?**

A.  show processes cpu
B.  show memory
C.  show running-config
D.  show version

**Correct Answer:** A
**Section: (none)**
**Explanation**

**Explanation/Reference:**


**QUESTION 39**
**What routing configuration can prevent routing loops between IGPs?**

A.  route filters
B.  route reflectors
C.  auto summarization
D.  virtual links

**Correct Answer:** A
**Section: (none)**
**Explanation**

**Explanation/Reference:**

**QUESTION 40**
**What IPv4 addressing technique allows for the division of addresses into subnets of different sizes?**

A. VLSM
B. RIR
C. CIDR
D. NAT

**Correct Answer:** A
**Section: (none)**
**Explanation**

**Explanation/Reference:**


**QUESTION 41**
**A wireless LAN client is sending traffic to the wired LAN client. What path will the packet take to reach the destination endpoint in a lightweight wireless deployment?**

A. switch > controller > ap > client
B. controller > ap > switch > client
C. ap > controller > switch > client
D. switch > ap > controller > client

**Correct Answer:** C
**Section: (none)**
**Explanation**

**Explanation/Reference:**


**QUESTION 42**
**A secure WAN design requires dynamic routing and IP multicast. What two VPN protocols meet these requirements? (Choose two.)**

A. Standard IPsec
B. P2P GRE over IPsec
C. DMVPN
D. AnyConnect

E. PPTP

F. Easy VPN

G. SSL/TLS

**Correct Answer:** BC
**Section: (none)**
**Explanation**

**Explanation/Reference:**

**QUESTION 43**
**A network engineer is designing an enterprise managed VPN solution for a large number of remote offices that do not have on-site IT support and communicate only with the home office. What type of VPN solution should be implemented?**

A. VPLS

B. GRE

C. IPsec

D. EVPN

E. DMVPN

F. SSL client

**Correct Answer:** D
**Section: (none)**
**Explanation**

**Explanation/Reference:**

**QUESTION 44**
**A client wants to deploy a video conferencing platform in a multisite WAN environment. What two design considerations need to be evaluated? (Choose two.)**

A. CODECs supported by the video units

B. buffer sizes on the routers

C. POE capabilities of the switches

D. number of current calls

E. number of hops between sites

**Correct Answer:** AD
**Section: (none)**
**Explanation**

**Explanation/Reference:**


**QUESTION 45**
**What characteristic separates link state routing protocols from a distance vector?**

A. creates a topological view of the entire network
B. path calculation utilizes a more granular metric
C. does not scale well for large networks
D. constantly shares link state updates throughout the topology

**Correct Answer:** A
**Section: (none)**
**Explanation**

**Explanation/Reference:**


**QUESTION 46**
**What is the primary advantage of implementing a wireless LAN controller in a wireless LAN design?**

A. roaming between APs
B. RADIUS user authentication
C. radio resource management
D. accelerated data transfer

**Correct Answer:** C
**Section: (none)**
**Explanation**

**Explanation/Reference:**


**QUESTION 47**

**A company must deploy an IGP routing protocol on an Enterprise Network. Where should route summarization be implemented?**

A. distribution
B. core
C. access
D. backbone

**Correct Answer:** A
**Section: (none)**
**Explanation**

**Explanation/Reference:**


**QUESTION 48**
**What two access point modes support the transmission of user traffic over a LWAPP/CAPWAP tunnel? (Choose two.)**

A. local
B. H-REAP
C. rogue detector
D. monitor
E. sniffer
F. standalone

**Correct Answer:** AB
**Section: (none)**
**Explanation**

**Explanation/Reference:**


**QUESTION 49**
**A network engineer is following the Cisco enterprise architecture model. To which network layer would a branch office connect to using a private WAN?**

A. Enterprise Campus
B. Enterprise Edge
C. SP Edge Premise

D. Remote Module

**Correct Answer:** D
**Section: (none)**
**Explanation**

**Explanation/Reference:**


**QUESTION 50**
**A client wants to consolidate applications that are currently housed at multiple sites to a remote data center. What two design requirements are unique to this scenario? (Choose two.)**

A. bandwidth
B. security
C. latency
D. storage
E. availability

**Correct Answer:** AC
**Section: (none)**
**Explanation**

**Explanation/Reference:**


**QUESTION 51**
**What Cisco product is designed to improve the performance of Windows file and exchange services in remote data centers?**

A. Application Control Engine
B. Wide Area Application Services
C. Cisco Application Policy Infrastructure Controller
D. Cisco Prime Network Services Controller

**Correct Answer:** B
**Section: (none)**
**Explanation**

**Explanation/Reference:**

**QUESTION 52**
A remote office has a T1 WAN link to headquarters and a T1 Internet connection. The client requests WAN redundancy to headquarters with similar bandwidth. What two connection types satisfy this requirement? (Choose two.)

A. Secondary T1 WAN circuit
B. ISDN BRI
C. IPSec Tunnel over the Internet
D. DWDM I
E. POTS Line T1 WAN

**Correct Answer:** AC
**Section: (none)**
**Explanation**

**Explanation/Reference:**


**QUESTION 53**
**What significant advantage does EIGRP have over OSPF?**

A. easy summarization
B. shorter convergence times
C. single area operation
D. low processor utilization

**Correct Answer:** B
**Section: (none)**
**Explanation**

**Explanation/Reference:**

**QUESTION 54**
**By default, how does EIGRP's metric differ from OSPF?**

A. hops
B. cost
C. bandwidth
D. delay

**Correct Answer:** D
**Section: (none)**
**Explanation**

**Explanation/Reference:**


**QUESTION 55**
**What branch design supports 100 to 1000 users and integrates ASA firewalls?**

A. small
B. medium
C. large
D. extra large

**Correct Answer:** C
**Section: (none)**
**Explanation**

**Explanation/Reference:**


**QUESTION 56**
**What is the first step when creating a network security policy?**

A. define what should be protected
B. investigate how likely an attack is to occur
C. implement measures to protect assets

D. hire a security firm to perform penetration tests

**Correct Answer:** A
**Section: (none)**
**Explanation**

**Explanation/Reference:**


**QUESTION 57**
**What type of device can be installed to increase a broadcast domain?**

A. router
B. switch
C. IDS
D. IPS

**Correct Answer:** B
**Section: (none)**
**Explanation**

**Explanation/Reference:**


**QUESTION 58**
**What network virtualization technology can be leveraged within the data center to reduce the number of physical devices?**

A. VLANs
B. VPLS
C. VDC
D. VSS

**Correct Answer:** C
**Section: (none)**
**Explanation**

**Explanation/Reference:**

**QUESTION 59**
**What part of the network does a top-down network design focus on for solution development?**

A. presentation
B. hardware
C. session
D. application
E. data link
F. transport

**Correct Answer:** D
**Section: (none)**
**Explanation**

**Explanation/Reference:**


**QUESTION 60**
**An engineer has configured a router to send level 7 messages to a syslog server. What severity level are these messages?**

A. error
B. warning
C. debug
D. informational
E. notice

**Correct Answer:** C
**Section: (none)**
**Explanation**

**Explanation/Reference:**


**QUESTION 61**
**A customer requests a filtering design based on the need to scan all internet traffic, including remote workers. What solution meets these requirements?**

A. Cisco Cloud Web Security

B. Cisco Network Admission Control
C. Cisco Identity Services Engine
D. Cisco Adaptive Security Appliance

**Correct Answer:** A
**Section: (none)**
**Explanation**

**Explanation/Reference:**


**QUESTION 62**
**What business trend allows employees to use personal devices to access enterprise data and systems?**

A. ISE
B. BYOD
C. SAN
D. IOE

**Correct Answer:** B
**Section: (none)**
**Explanation**

**Explanation/Reference:**


**QUESTION 63**
**A circuit order has been placed for Gigabit Ethernet and is 80KM from the carrier equipment. What type of SFP will be required?**

A. TX
B. SX
C. ZX
D. LX

**Correct Answer:** C
**Section: (none)**
**Explanation**

**Explanation/Reference:**

**QUESTION 64**
**What three considerations should be taken into account when selecting a routing protocol? (Choose three.)**

A. classful routing
B. scalability
C. default route origination
D. multi vendor support
E. link load balancing
F. hop count

**Correct Answer:** BDE
**Section: (none)**
**Explanation**

**Explanation/Reference:**

**QUESTION 65**
**An organization is conducting an evaluation on the migration to IPv6 within the enterprise network and has requested clarification on recommended migration strategies. What three migration models would accomplish the organization's goal? (Choose three.)**

A. Dual Stack
B. Service Block
C. Top-Down
D. Hybrid
E. Tunneled
F. Fork-Lift

**Correct Answer:** ABD

**QUESTION 66**
**What wireless authentication option requires a Public Key Infrastructure?**

A.  EAP-TLS
B.  PEAP
C.  LEAP
D.  EAP-FAST

**Correct Answer:** A
**Section: (none)**
**Explanation**

**Explanation/Reference:**


**QUESTION 67**
**A company requires a managed WAN solution that supports Layer 2 adjacency across remote offices for applications and services. What solution should be selected?**

A.  DMVPN
B.  MPLS
C.  VPLS
D.  FR

**Correct Answer:** C
**Section: (none)**
**Explanation**

**Explanation/Reference:**


**QUESTION 68**
**What two CoS values are used by voice traffic? (Choose two.)**

A.  COS1
B.  COS2
C.  COS3
D.  COS4
E.  COS5

**Correct Answer:** CE
**Section: (none)**
**Explanation**

**Explanation/Reference:**


**QUESTION 69**
**What two features are advantages of adding a secondary WAN link at the enterprise edge? (Choose two.)**

A.  provides additional bandwidth and load balancing capabilities
B.  acts as a backup link in event the primary link fails
C.  reduces capital and operational costs
D.  improves security and prevents against denial of service attacks
E.  distributes traffic proactively based on link utilization

**Correct Answer:** AB
**Section: (none)**
**Explanation**

**Explanation/Reference:**


**QUESTION 70**
**A network engineer is attempting to separate routing domains using a virtualization technology. What protocol can be configured to perform this task?**

A.  VLAN
B.  VSAN
C.  VRF
D.  VPC

**Correct Answer:** C
**Section: (none)**
**Explanation**

**Explanation/Reference:**


**QUESTION 71**
Which IP telephony component supports VoIP, PoE, and QoS?

A. client endpoints
B. voice-enabled infrastructure
C. Cisco Unified Communications Manager
D. Cisco Unified Contact Center

**Correct Answer:** B
**Section: (none)**
**Explanation**

**Explanation/Reference:**