500-205 40 Questions SP Optical Technology
Systems Engineer Representative

Exam Code: 500-205
Certification: Systems Engineer
Posted: 2017-06-05
http://www.aoowe.com

Question 1
Which type of protocol encapsulation do IP-over-DWDM interfaces feature?
A. G.853
B. G.709
C. SONET/SDH
D. ATM

Correct Answer: B
Explanation/Reference: up-to-date.

Question 2
Which two options are modes of operation of the 2-port CFP line card?
A. 2 x 100G muxponder into 200G line card
B. two 40G transponders
C. 2 x 40G muxponder client into one 100G line card
D. two 100G clients into two 100G WDM line cards

Correct Answer: CD
Explanation/Reference:

Question 3
Which modulation format does the NCS 2000 200G WDM line card use for 200G transmission?
A. QPSK
B. BPSK
C. 16QAM
D. OFDM

Correct Answer: C
Explanation/Reference:

Question 4
In which three modes of operation can NCS 2000 100G+ coherent line cards operate? (Choose three.)
A. transponder
B. amplifier
C. trunk using a separate client card
D. regenerator
E. encryptor
F. dispersion compensator

Correct Answer: ACD
Explanation/Reference:

**Question 5**
Which feature of nLight Silicon enables the creation of spectrally efficient super-channels?
A. soft-decision FEC
B. transmit wave shaping
C. digital-to-analog conversion
D. coherent reception

Correct Answer: B
Explanation/Reference:

**Question 6**
Which combination and quantity of ports does the AnyRate Xponder card have?
A. 8 SFP and 2 XFP
B. 10 SFP and 2 SFP+
C. 8 SFP and 4 QSFP
D. 6 SFP and 2 CPAK

Correct Answer: A
Explanation/Reference:

**Question 7**
The 10G Wire Speed Encryption line card encrypts the payload of which protocol?
A. Ethernet
B. OTN
C. IP
D. SONET/SDH

Correct Answer: B
Explanation/Reference:

**Question 8**
Which two options describe two benefits of Flex Spectrum? (Choose two.)
A. more efficient spectrum usage  
B. longer supported distances  
C. support for transport of superchannels  
D. eliminate dispersion compensation  

Correct Answer: AC  
Explanation/Reference:  

**Question 9**  
Which wavelength characteristic eliminates physical port dependency for colorless add/drop?  
Which wavelength characteristic eliminates physical port dependency for colorless add/drop?  
A. bit rate  
B. direction  
C. protocol  
D. frequency  

Correct Answer: D  
Explanation/Reference:  

**Question 10**  
Which two technologies are combined for erbium-doped Raman amplification?  
Which two technologies are combined for erbium-doped Raman amplification? (Choose two.)  
A. erbium-doped fiber amplification  
B. dispersion amplification  
C. Raman amplification  
D. coherent amplification  

Correct Answer: AC  
Explanation/Reference:  

**Question 11**  
What is the most important benefit of EDRA amplifiers?  
What is the most important benefit of EDRA amplifiers?  
A. ultra low noise  
B. compact form factor  
C. chassis integration  
D. low cost  

Correct Answer: A  
Explanation/Reference:  

**Question 12**  
Which three characteristics define a touchless ROADM?  
Which three characteristics define a touchless ROADM? (Choose three.)  
A. colorless  
B. fixed grid  
C. omnidirectional or directionless  
D. contentionless  
E. multidegree
Correct Answer: ACD
Explanation/Reference:

Question 13
Which family of components for wavelength add/drop does the single module ROADM and 80-channel wavelength cross connect use?
Which family of components for wavelength add/drop does the single module ROADM and 80-channel wavelength cross connect use?
A. NCS 4000
B. NCS 2002
C. 15216 passive multiplexers
D. 15600 passive multiplexers

Correct Answer: C
Explanation/Reference:

Question 14
Which three components does the single module ROADM combine into a single slot line card? (Choose three.)
A. reconfigurable optical add/drop multiplexer
B. optical spectrum analyzer
C. coherent transceiver
D. erbium-doped fiber amplifier
E. Raman amplifier
F. dispersion compensation

Correct Answer: ABD
Explanation/Reference:

Question 15
Which feature enables the output Cisco Transport Planner to directly provision an NCS 2000 network element?
Which feature enables the output Cisco Transport Planner to directly provision an NCS 2000 network element?
A. easy setup
B. automatic node setup
C. software defined networking
D. autoprovisioning

Correct Answer: B
Explanation/Reference:

Question 16
How many shelves can be combined into a single network element with Cisco NCS 2000 multishelf management?
How many shelves can be combined into a single network element with Cisco NCS 2000
multishelf management?  
A. 50  
B. 30  
C. 25  
D. 10  

Correct Answer: A  
Explanation/Reference:  

**Question 17**  
Which option describes the purpose of the USB ports on the external connection unit of the NCS 2006?  
Which option describes the purpose of the USB ports on the external connection unit of the NCS 2006?  
A. to charge a USB powered device  
B. to load software via a thumb drive  
C. inventory and monitoring of passive optical devices  
D. multishelf management  

Correct Answer: C  
Explanation/Reference:  

**Question 18**  
How many 100G transponders does the NCS 2006 chassis support?  
How many 100G transponders does the NCS 2006 chassis support?  
A. 3  
B. 4  
C. 6  
D. 8  

Correct Answer: C  
Explanation/Reference:  

**Question 19**  
Which three options are categories of components within an NCS 2000 system?  
Which three options are categories of components within an NCS 2000 system? (Choose three.)  
A. ROADM  
B. Layer 1+ transport  
C. amplification  
D. Layer 0 transport  
E. dispersion compensation  
F. commons  

Correct Answer: BDF  
Explanation/Reference:  

**Question 20**  
How many slots does the Cisco NCS 2006 chassis have?  
How many slots does the Cisco NCS 2006 chassis have?
A. 6
B. 8
C. 10
D. 7

Correct Answer: B
Explanation/Reference:

**Question 21**
Which three options are chassis variations of the NCS 2000?
Which three options are chassis variations of the NCS 2000? (Choose three.)
A. NCS 2015
B. NCS 2002
C. NCS 2012
D. NCS 2006
E. NCS 2010
F. NCS 2001

Correct Answer: ABD
Explanation/Reference:

**Question 22**
Into which category of packet networking does the Cisco NCS 4000 Series fit?
Into which category of packet networking does the Cisco NCS 4000 Series fit? A. aggregation
B. edge
C. access
D. core

Correct Answer: A
Explanation/Reference:

**Question 23**
Which three factors make optical a critical component of service provider networking?
Which three factors make optical a critical component of service provider networking? (Choose three.)
A. Optical hardware has a long 10-15 year life span.
B. Optical local area networks are gaining in popularity.
C. Packet networking and optical hardware are converging.
D. Optical hardware churns frequently and needs frequent replacement.
E. Optical networking is the foundation of all WANs.
F. Many models of optical hardware have reached end-of-life.

Correct Answer: ACE
Explanation/Reference:

**Question 24**
Around which three DWDM technologies is the Cisco NCS 2000 Series optimized?
Around which three DWDM technologies is the Cisco NCS 2000 Series optimized? (Choose
three.)
A. Flex Spectrum
B. SONET/SDH switching
C. dispersion compensation
D. coherent wavelengths
E. touchless ROADM
F. arrayed waveguide gratings

Correct Answer: ADE
Explanation/Reference:

Question 25
Which three nLight technologies does the NCS 2000 employ?
Which three nLight technologies does the NCS 2000 employ? (Choose three.)
A. nLight Routing
B. nLight Silicon
C. nLight Control Plane
D. nLight ROADM
E. nLight Switching
F. nLight Convergence

Correct Answer: BCD
Explanation/Reference:

Question 26
Into which three areas can network convergence be categorized?
Into which three areas can network convergence be categorized? (Choose three.)
A. operational convergence
B. packet convergence
C. functional convergence
D. logical convergence
E. system convergence
F. optical convergence

Correct Answer: ACD
Explanation/Reference:
valid and updated.

Question 27
Which technology can different network layers use to communicate with one another while maintaining organizational segmentation?
Which technology can different network layers use to communicate with one another while maintaining organizational segmentation?
A. WSON
B. MPLS-TP
C. GMPLS-UNI
D. segment routing

Correct Answer: C
Explanation/Reference:
**Question 28**
Which technology allows optical transport management to gain visibility into an IP-over-DWDM interface residing in a router?

Which technology allows optical transport management to gain visibility into an IP-over-DWDM interface residing in a router?

A. GMPLS-UNI  
B. TL1  
C. virtual transponder  
D. network functions virtualization

Correct Answer: C  
Explanation/Reference:

**Question 29**
Which two options are the two primary features of nLight Control Plane?

Which two options are the two primary features of nLight Control Plane? (Choose two.)

A. constraint-based routing  
B. segment routing  
C. DWDM troubleshooting  
D. multilayer restoration

Correct Answer: AD  
Explanation/Reference:

**Question 30**
nV Optical Satellite allows the DWDM transponder to be managed by which method?

nV Optical Satellite allows the DWDM transponder to be managed by which method?

A. IOS-XR command line of the connected router  
B. Cisco Transport Controller  
C. virtual transponder  
D. nLight Control Plane

Correct Answer: A  
Explanation/Reference:

**Question 31**
Wavelength Switched Optical Network brings knowledge of which two features to GMPLS?

Wavelength Switched Optical Network brings knowledge of which two features to GMPLS? (Choose two.)

A. channel impairments  
B. packet interface utilization  
C. interface requirements  
D. power consumption

Correct Answer: AC  
Explanation/Reference:
Question 32
Which technology does the Cisco CPAK use to achieve its low power and small size?

A. indium phosphide  
B. CMOS photonics  
C. gallium arsenide  
D. erbium-doped fiber

Correct Answer: B

Explanation/Reference:

Question 33
Which two types of 100G router interface does pre-FEC proactive protection work on?

A. IP-over-DWDM  
B. gray plus transponder  
C. Packet-over-SONET  
D. WAN PHY

Correct Answer: AB

Explanation/Reference:

Question 34
Which two technologies are examples of Cisco IP+Optical innovation?

A. hybrid Raman amplification  
B. proactive protection  
C. segment routing  
D. IP-over-DWDM  
E. dispersion compensation

Correct Answer: BD

Explanation/Reference:

Question 35
Which other operation does the 10G Wire Speed Encryption line card perform?

A. OTN switching  
B. DWDM transponding  
C. SONET/SDH switching  
D. dispersion compensation

Correct Answer: B

Explanation/Reference:

Question 36
Which two options are modes of operation for the 10-port SFP+ line card?
Which two options are modes of operation for the 10-port SFP+ line card? (Choose two.)
A. 10 x 10G muxponder client for 100G line card
B. wire speed encryption
C. 5 x 10G transponder
D. dispersion compensation

Correct Answer: AC
Explanation/Reference:

Question 37
Which three types of interface are on the Multi-Rate 10G/40G Aggregation Line Card?
Which three types of interface are on the Multi-Rate 10G/40G Aggregation Line Card? (Choose three.)
A. XFP
B. SFP+
C. QSFP
D. GBIC
E. CPAK
F. CFP

Correct Answer: BCE
Explanation/Reference:

Question 38
How many 50 GHz channels does the 16-WXC-FS support on each port?
How many 50 GHz channels does the 16-WXC-FS support on each port?
A. 96
B. 88
C. 80
D. 40

Correct Answer: A
Explanation/Reference: corrected.

Question 39
Which two options are characteristics of the NCS 2000 add/drop/express patch panels?
Which two options are characteristics of the NCS 2000 add/drop/express patch panels? (Choose two.)
A. passive
B. coherent
C. modular
D. high power

Correct Answer: AC
Explanation/Reference:

Question 40
Which type of architecture does nLight ROADM employ?
Which type of architecture does nLight ROADM employ?
A. broadcast and select
B. drop and continue
C. route and select
D. pass through and drop

Correct Answer: C
Explanation/Reference: