

Practice Exam Questions for: Automation of Optical Networks within the Nokia Ecosystem (exam number: 4A0-215)

The following questions will test your knowledge and prepare you for the Automation of Optical Networks within the Nokia Ecosystem written exam. Compare your responses with the Answer Key at the end of the document.

1. Which type of automation can take over an entire process and orchestrate humans, robots, and systems to work together efficiently?
 - a. Robotic Process Automation (RPA)
 - b. Business Process Automation (BPA)
 - c. Digital Process Automation (DPA)
 - d. Artificial Intelligence (AI) automation
2. What are gNOI operations?
 - a. Operations encoded via Protobuf serialization.
 - b. Operations focused on the device's supported operations.
 - c. Operations focused on the device's state via telemetry.
 - d. Operations composed of small logical records of information containing a series of name-value pairs called "fields".
3. What are gNMI operations?
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4. How are designs organized into WS-P?
 - a. Designs are organized into folders: Designs and Designs Branches.
 - b. Designs are organized into folders: Users, Designs, and Designs Branches.
 - c. Designs are organized into folders: Plans, Designs, and Designs Branches.
 - d. Designs are organized into folders: Plans, Designs, and Published Designs.
5. Which entities should you define before running a design?
 - a. NEs, Topology, Routes, and Services.
 - b. Sites, Topology, Trails, and Services.
 - c. Sites, NEs, Topology, and Trails.
 - d. NEs, Topology, Amplifiers, and Trails.
6. How can we parse a query to retrieve equipment detail by Network Element ID?
 - a. <https://10.10.20.1:8443/oms1350/data/npa/nes/emlNeld==3>
 - b. <https://10.10.20.1:8443/oms1350/data/npa/nes/emlNe/Id3>
 - c. [https://10.10.20.1:8443/oms1350/data/npa/nes\(emlNeld=3\)](https://10.10.20.1:8443/oms1350/data/npa/nes(emlNeld=3))
 - d. <https://10.10.20.1:8443/oms1350/data/npa/nes?emlNeld=3>
7. Which of the following products can virtualize network connectivity services?
 - a. WaveSuiteResource Controller and Network Operations Center
 - b. WaveSuiteService Enablement
 - c. WaveSuiteHealth & Analytics
 - d. WaveSuiteSynchronizer
8. Which of the following is NOT a pillar of Nokia's automation strategy?
 - a. Visualize
 - b. Monetize
 - c. Optimize
 - d. Scale
9. Which of the following is NOT a phase of "service lifecycle management"?
 - a. Virtualize slice
 - b. Optimize
 - c. Fulfill
 - d. Assure
10. In Nokia optical networks, the "digital network emulation" service is also known as...
 - a. Digital Copy-as-a-Service (DCaaS).
 - b. Digital Network-as-a-Service (DNaaS).
 - c. Digital Twin-as-a-Service (DTaaS).
 - d. Digital Partner-as-a-Service (DPaaS).

11. Which of the following activities is NOT performed by the WS-HA application?
 - a. Monetizes network synchronization services
 - b. Collects and analyzes data
 - c. Localizes soft failure fault events
 - d. Generates Threshold Crossing Alarms (TCAs)
12. Which of the following statements about WS-AD is FALSE?
 - a. WS-AD can perform a visual comparison of multiple scans.
 - b. WS-AD can geo-locate a fiber cut.
 - c. WS-AD's scans can be automatically triggered by LOS alarms.
 - d. WS-AD can automatically repair a fiber cut.
13. Which WaveSuite applications can support the "Provision" phase of the network lifecycle?
 - a. WS-NOC, WS-SE, WS-S and WS-RC.
 - b. WS-NOC and WS-O.
 - c. WS-NOC and WS-HA.
 - d. WS-NOC, WS-SE, WS-S and WS-HA.
14. Which of the following is NOT a functionality of the WS-O application?
 - a. Path's routing protection
 - b. Link optimization
 - c. Channel optimization
 - d. Spectrum defragmentation
15. Which of the following is a PTP profile supported by the WS-S application?
 - a. IEEE 1577 Default profile
 - b. Telecom profile G.8888.1
 - c. Telecom profile G.8265.1
 - d. Telecom profile G.8275.1
16. Which type of automation allows systems to learn and make decisions based on data collected, learned and constantly analyzed?
 - a. Robotic Process Automation (RPA)
 - b. Business Process Automation (BPA)
 - c. Digital Process Automation (DPA)
 - d. Artificial Intelligence (AI) automation
17. How can DTaaS help improve network automation?
 - a. It keeps the network synchronized, and WDM line systems and traffic optimized.
 - b. It interconnects optical network elements with OTN hierarchy and multilayer switching capabilities.
 - c. It can simulate and benchmark a comprehensive set of business process activities in a virtual environment.
 - d. It allows systems to learn and make decisions based on data collected.

18. Which of the following statements best describes the WaveSuite Health & Analytics Building Block of Nokia's optical network automation ecosystem?
 - a. It is a centralized system that enables the abstraction of the physical resources and allows network operators to deliver on-demand network services cost-effectively and with scalability.
 - b. It monitors KPI indicators and applies machine-learning algorithms to analyze and learn from the optical network to predict anomalies or losses in performance.
 - c. It is the physical layer made by interconnected optical network elements, with OTN hierarchy and multilayer switching capabilities.
 - d. It belongs to the WaveSuite Business Aware Services block and enables increased network operator revenue through virtualization of optical network connectivity.
19. Which type of user can create a Subscriber account?
 - a. Network Operator
 - b. Subscriber
 - c. Administrator
 - d. Root
20. Which of the following is NOT a (CRUD)-compatible operation?
 - a. Create
 - b. Read
 - c. Upgrade
 - d. Delete
21. How is the Chromatic Dispersion measured in WS H&A?
 - a. It is the average signal power divided by the average noise power.
 - b. It is one minus the ODU Unavailable Seconds over a period of time.
 - c. It is a pulse broadening along the fiber due to different spectral components.
 - d. It is the delta of the ESNR median calculated every 24 hours and then normalized to a year.
22. Which of the following HTTP response codes do NOT have the credentials to access the resource?
 - a. 501
 - b. 401
 - c. 301
 - d. 201
23. Which of the following statements best describes gRPC?
 - a. It is a legacy network management protocol.
 - b. It is a lightweight communication protocol focused on efficient high-performance transmission services.
 - c. It is a framework for data by providing a specific definition and format.
 - d. It is an application-layer protocol for the northbound interface.
24. In which format is data encoded when retrieving network alarms via NETCONF?
 - a. XML
 - b. CSV
 - c. XLSX
 - d. DJSON

25. Which of the following is NOT a Use Case example categorized under the SCALE pillar?
- a. Re-optimization
 - b. Optical network rollout and transformation
 - c. Network upgrades
 - d. Flow-through provisioning
26. Which of the following Building Blocks support Transport-APIs (T-APIs) northbound interface?
- a. WaveSuite Resource Controller (WS-RC)
 - b. WaveSuite Network Operations Center (WS-NOC)
 - c. WaveSuiteService Enablement (WS-SE)
 - d. WaveSuiteHealth & Analytics (WS H&A)
27. How can a Subscriber request a service with well-defined SLAs in WSSE?
- a. By triggering a Service Order.
 - b. By requesting the Reseller or Network Operator the service Onboard.
 - c. By triggering the New Order API.
 - d. By triggering the Bulk Provisioning workflow.
28. How can WS H&A forecast measurement trends?
- a. WS H&A does not have this functionality.
 - b. By averaging the time series to even out irregularities in the data.
 - c. By using an API service to forecast service usage and availability.
 - d. By using the Holt-Winters algorithm.
29. Which of the following statements about WS-S is TRUE?
- a. WS-S helps operators to provide service assurance for a robust and resilient synchronization network.
 - b. WS-S supports the PTP Telecom profile G.8265.1 for time/phase distribution.
 - c. WS-S can secure the whole optical transport network with Quantum-safe encryption.
 - d. WS-S supports the PTP Telecom profile G.8265.1 for frequency distribution.
30. Which of the following statements about WS-S is FALSE?
- a. WS-S helps operators to provide service assurance for a robust and resilient synchronization network.
 - b. WS-S simplify and automate the operation and maintenance of time-sensitive services.
 - c. WS-S can simulate clock distribution services' fault scenarios.
 - d. WS-S monetize the optical network's clock distribution capabilities through a Synchronization as a Service (SynaaS) approach.
31. What are the prerequisites to generate the Commissioning File, in WS-P?
- a. The design must be saved, and it must be partitioned into one or more Systems.
 - b. The plan must be in a "Complete, Valid" state, and the plan must be checked in.
 - c. Only an Administrator can create the Commissioning file.
 - d. The design must be in a "Complete, Valid" state and it must be partitioned into one or more Systems.

32. In WS-NOC's main menu structure, what is the meaning of the DDOA provisioning model?
- Define, Deploy, Operate, Administer.
 - Design, Deploy, Operate, Administer.
 - Design, Deploy, Operate, Analyze.
 - Define, Deploy, Optimize, Administer.
33. Which file is needed to use the "Commissioning and Power Balance" tool?
- The Installation Report file.
 - The Commissioning file.
 - The Network Information Report file.
 - The BOM file.
34. What are Key Performance Indicators (KPIs)?
- Key Performance Indicators (KPIs) are alarms, triggered by the NEs, used to analyze the status of the optical network.
 - Key Performance Indicators (KPIs) are measured or calculated values used to analyze the status of the optical network.
 - Key Performance Indicators (KPIs) are thresholds used to warn the user about the status of the optical network.
 - Key Performance Indicators (KPIs) are measured or calculated values used to analyze the status of the optical links.
35. What is the Availability KPI?
- The Availability KPI is the availability of the NEs' supervision over a period of time, not taking into account any maintenance intervals.
 - The Availability KPI is the availability of a connection over a period of time, not taking into account any maintenance intervals.
 - The Availability KPI is the availability of the NEs' supervision over a period of time, including the maintenance intervals.
 - The Availability KPI is the availability of a connection over a period of time, including the maintenance intervals.
36. In WS-HA, what is the scope of configuring Maintenance Intervals?
- Maintenance Intervals are used to engage field force personnel in fault resolution.
 - Maintenance Intervals automatically set the state of specific network entities as out of service, for the involved timeframe.
 - Maintenance Intervals are used to exclude a timeframe from KPI data analysis for specific network entities.
 - Maintenance Intervals apply to selected TCA Profiles, to avoid KPI calculation in the selected timeframe.
37. In WS-O, which options are available in the Channel Optimize tool?
- In the Channel Optimize tool, it is possible to select the Q Margin or the ESNR Margin options.
 - In the Channel Optimize tool, it is possible to select the Margin Based or the Prediction Based options.
 - In the Channel Optimize tool, it is possible to select the Multilayer Based or the Spectrum Based options.
 - In the Channel Optimize tool, no options are available.
38. In W-O, what types of Multilayer Analysis can be performed?
- Two types of Multilayer Analysis can be performed: Control Plane Analysis and Managed Plane Analysis.
 - Two types of Multilayer Analysis can be performed: Restoration Analysis and Maintenance Analysis.
 - Two types of Multilayer Analysis can be performed: Link Analysis and Channel Analysis.
 - Two types of Multilayer Analysis can be performed: 1x1 Restoration Analysis and Defragmentation Analysis.

39. On which object in WS-NOC is it possible to launch the OTDR scan?
- a. Nodes
 - b. Infrastructure Connections
 - c. Physical Connections
 - d. Services
40. In WaveSuite Advanced Diagnostic, can the exact coordinates of a fault be found by comparing the baseline and troubleshoot scans?
- a. Yes, but only if the involved link has a KML/KMZ route file associated.
 - b. No, only the distance from the endpoints is available.
 - c. Yes, but only if the Map application is geo-located by an external service.
 - d. Not by using WS-AD, the exact coordinates of a fault can be found in the Fault Localization Report of the WS-HA application.



Answer Key

1. C	10. C	19. A	28. D	37. B
2. B	11. A	20. C	29. A	38. B
3. C	12. D	21. C	30. C	39. C
4. C	13. A	22. B	31. D	40. A
5. B	14. A	23. B	32. B	
6. D	15. D	24. A	33. B	
7. B	16. D	25. A	34. B	
8. A	17. C	26. A	35. B	
9. B	18. B	27. A	36. C	

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