Question 1

Which of the following is NOT a valid flow control attribute?

Options:

A- on-failure

B- on-complete

C- on-success

D- on-error

Answer:

A

Explanation:

According to the Mistral Workflow Language (v2) documentation1, which is one of the technologies that can be used in a NSP workflow2, flow control attributes are used to define how a task behaves depending on its execution status.The valid flow control attributes areon-success,on-error,on-complete, andon-cancel1. Therefore, the correct answer is A.

Question 2

Which of the following best describes data flow in a workflow?

Options:

A- Transitioning between tasksB, Passing data between tasks

B- Dependency graph of tasks

C- Defines operation to perform

Answer:

B

Explanation:

According to the Nokia NSP Workflow Design and Management course12, a workflow is a sequence of tasks that are executed to achieve a certain goal.Data flow in a workflow refers topassing data between tasks12. Therefore, the correct answer is B.

Data flow can be defined usinginput,output, andpublishparameters in a workflow definition3.Input parameters are used to pass data into a workflow, output parameters are used to return data from a workflow, and publish parameters are used to share data between tasks within a workflow3.

Question 3

Which of the following is NOT a common workflow attribute defined by Mistral?

Options:

A- Type

B- Workflow-meta

C- Output

D- Input

Answer:

B

Explanation:

According to the Mistral Workflow Language (v2) website1, a workflow definition consists of several attributes that define its properties and behavior.The common workflow attributes are:name,description,type,input,outputandvars1.

Question 4

Which of the following languages does Mistral Workflow support as Data Flow mechanisms?

Options:

A- Jaql

B- Jinja2

C- SQL

D- JSON

Answer:

B

Explanation:

According to the Mistral Workflow Language (v2) website1, Mistral Workflow Language supportsYAQLandJinja2expression languages to reference workflow context variables and thereby implements passing data between workflow tasks. It's also referred to as Data Flow mechanism.YAQL is a simple but powerful query language that allows to extract needed information from JSON structured data1.

Question 5

Which syntax is used to reference a workflow variable when using Jlnja2?

Options:

A- {< ... >}

B- << ...>>

C- (* .- *)

D- {{...}}

Answer:

D

Explanation:

The {{...}} syntax is used to reference a workflow variable when using Jinja2. Jinja2 is a templating language used to generate dynamic text based on input variables, and the {{...}} syntax is used to access the value of a workflow variable within a Jinja2 template. The other syntaxes provided are not valid for referencing workflow variables in Jinja2.

Question 6

Question Type: **MultipleChoice**

Which of the following scripting languages can be used to extend WFM actions and expressions?

Options:

A- PHP

B- Python

C- Perl

D- Groovy

Answer:

D

Explanation:

According to the Nokia NSP Programmable Network Automation website1, NSP API documentation and downloadable sample codes are available on the Nokia Network Developer Portal.The NSP Workflow Manager allows the design and management of workflows to automate network operations using Mistral DSL v2 which is based on YAML2. YAML definesexpressions in workflow and action definitions.The formatting of the YAML must comply with Mistral DSL v2 specifications3

Question 7

Which of the following does NOT support Workflow actions?

Options:

A- NSP applications

B- Network elements

C- Windows OS devices

D- UNIX servers

Answer:

C

Explanation:

NSP Workflow Manager (WFM) is a module that allows users to create and execute automated procedures using NSP or third-party APIs. A workflow is a sequence of actions that can be performed on various targets such as:

NSP applications: These are the applications that run on NSP such as Network Insight, Service Assurance, Traffic Engineering and others.They can be accessed by using RESTful APIs2.

Network elements: These are the devices that are managed by NSP such as routers, switches and optical equipment.They can be accessed by using CLI, NETCONF, RESTCONF, SNMP or TL12.

UNIX servers: These are the servers that run UNIX-based operating systems such as Linux or Solaris.They can be accessed by using SSH or SCP2.

Question 8

Question Type: **MultipleChoice**

Which of the following is NOT a building block of NSP automation?

Options:

A- Terminal emulation configuration

B- Model-driven mediation

C- Analytics & telemetry

D- Multi-vendor support

Answer:

A

Explanation:

Terminal emulation configuration is not one of the building blocks of NSP automation. The building blocks of NSP automation are Model-driven mediation, Analytics & telemetry, Multi-vendor support and Automation scripting. Model-driven mediation enables the automation of common tasks across multiple vendors and devices, and analytics & telemetry enables the gathering of critical data to ensure service quality. Multi-vendor support enables the automation of tasks across multiple vendors, and automation scripting enables the development of robust and secure automation scripts.

NSP automation is based on four key building blocks:

Model-driven mediation: This enables NSP to communicate with various network devices and protocols using a common data model and abstraction layer.It supports YANG models, NETCONF, RESTCONF, SNMP, TL1 and CLI2.

Analytics & telemetry: This enables NSP to collect and analyze network data using streaming telemetry, SNMP polling, syslog and other methods.It supports various analytics applications such as Network Insight, Service Assurance and Traffic Engineering2.

Multi-vendor support: This enables NSP to manage and automate networks that consist of devices from different vendors and technologies.It supports Nokia SROS devices as well as third-party routers, switches and optical equipment3.

Programmable APIs: This enables NSP to expose its functionality and data to external applications or systems using RESTful APIs.It supports various use cases such as network supervision, service fulfillment, fault management and workflow management2.

Question 9

Which of the following sequences best describes the process of moving to SDN based self-regulated networking?

Options:

A- action-based networking -> static networking -> adaptive networking -> autonomous networking

B- static networking -> action-based networking -> autonomous networking -> adaptive networking

C- static networking -> action-based networking -> adaptive networking > autonomous networking

D- action-based networking -> static networking -> autonomous networking -> adaptive networking

Answer:

C

Explanation:

Nokia NSP is a platform that enables management, control and automation of IP/Optical networks. It supports various levels of network automation, from static networking to autonomous networking.

The process of moving to SDN based self-regulated networking involves four stages:

Static networking: The network is manually configured and operated by human operators. There is no automation or intelligence involved.

Action-based networking: The network is partially automated by using predefined actions or scripts that are triggered by events or commands. There is still human intervention required for complex tasks or exceptions.

Adaptive networking: The network is dynamically automated by using policies, analytics and machine learning that can adjust the network behavior based on changing conditions and objectives. There is minimal human intervention required for oversight and validation.

Autonomous networking: The network is fully automated by using artificial intelligence and closed-loop feedback that can optimize the network performance and reliability without any human involvement. The network can self-heal, self-optimize and self-protect.

Question 10

Question Type: MultipleChoice

Which of the following is NOT supported by the Workflow Manager out of the box?

Options:

A- REST/RESTCONF APIs

B- Optical integration using TL1

C- Shell command execution

D- CLI command execution on SROS and third party routers

Answer:

C

Explanation:

Workflow Manager is a module of Nokia NSP that allows users to create and execute automated procedures and closed loop automation using Nokia NSP or third party APIs3.It uses Mistral as the workflow engine and supports various technologies that can be used in a workflow2.

Some of the technologies that are supported by Workflow Manager out of the box are:

REST/RESTCONF APIs

CLI command execution on SROS and third party routers

Optical integration using TL1

SNMP traps

Email notifications