# ? EASY (10 Questions)

### Q1. OpenDaylight (ODL) is primarily:

A. A routing protocol
B. A network simulator
C. An SDN controller platform
D. A virtualization hypervisor

### Q2. Which language is OpenDaylight mainly developed in?

A. C++
B. Python
C. Java
D. Go

### Q3. MD-SAL stands for:

A. Modular Data Service Abstraction Layer
B. Model-Driven Service Abstraction Layer
C. Multi-Domain Software Abstraction Layer
D. Managed Data Switching Access Layer

### Q4. Which protocol connects OpenDaylight to Open vSwitch?

A. NETCONF
B. SNMP
C. OpenFlow
D. RIP

### Q5. Which OpenDaylight feature enables high availability?

A. Static configuration
B. Clustering
C. Standalone mode
D. Local datastore

### Q6. Open vSwitch (OVS) is:

A. A hardware-only switch
B. A routing protocol
C. A multilayer virtual switch
D. A firewall appliance

### Q7. Mininet is used for:

A. Production networking
B. Network emulation and testing
C. Firewall deployment
D. WAN optimization

### Q8. Which OpenDaylight component provides a web-based GUI?

A. MD-SAL
B. Karaf
C. DLUX
D. OpenFlow plugin

### Q9. Which SDN application provides basic Layer 2 forwarding?

A. Firewall
B. Load balancer
C. L2Switch
D. Router app

### Q10. Which OpenDaylight datastore holds runtime state?

A. Config datastore
B. Operational datastore
C. Local cache
D. ARP table

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# □ MEDIUM (15 Questions)

### Q11. Which MD-SAL datastore holds intended configuration?

A. Operational
B. Runtime
C. Config
D. Cache

### Q12. Which OpenDaylight component manages OSGi bundles?

A. MD-SAL
B. Karaf container
C. OpenFlow plugin
D. OVSDB

Q13. Which OpenDaylight clustering benefit improves scalability?

A. Single controller
B. Load distribution
C. Static topology
D. Manual failover

Q14. Which OpenDaylight southbound plugin manages virtual switches?

A. OpenFlow
B. OVSDB
C. NETCONF
D. BGP-LS

Q15. Which Mininet feature supports rapid SDN prototyping?

A. Hardware acceleration
B. Lightweight virtualization
C. Physical cabling
D. ASIC switching

Q16. Which MD-SAL concept uses YANG models?

A. Hard-coded schemas
B. Model-driven APIs
C. Flat files
D. CLI commands

Q17. Which OpenDaylight clustering mode allows multiple active nodes?

A. Active-standby
B. Cold backup
C. Active-active
D. Standalone

Q18. Which Open vSwitch feature supports SDN control?

A. Static MAC table
B. OpenFlow support
C. Token Ring
D. ARP caching

### Q19. Which Mininet object represents a virtual switch?

A. Host
B. Controller
C. Switch
D. Link

### Q20. Which MD-SAL feature ensures data consistency?

A. Local storage
B. Distributed datastore
C. Flat files
D. Static config

### Q21. Which OpenDaylight service abstracts southbound protocols?

A. Karaf
B. MD-SAL
C. DLUX
D. Mininet

### Q22. Which OpenDaylight plugin handles topology discovery?

A. L2Switch
B. OpenFlow
C. Topology Manager
D. OVSDB

### Q23. Which Open vSwitch database stores configuration?

A. Flow table
B. CAM table
C. OVSDB
D. ARP table

### Q24. Which Mininet command starts a basic topology?

A. mn
B. start
C. topo
D. net

### Q25. Which L2Switch function mimics traditional switching?

A. Routing decisions
B. MAC learning and forwarding
C. NAT translation
D. Firewall filtering

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## 🟥 HARD (15 Questions)

### Q26. Which MD-SAL datastore is synchronized across clusters?

A. Local cache
B. Config and operational datastores
C. ARP table
D. Flow table only

### Q27. Which OpenDaylight clustering challenge affects consistency?

A. Controller placement
B. Network latency
C. State synchronization
D. Hardware failure

### Q28. Which Open vSwitch feature enables tunnel encapsulation?

A. Static VLANs
B. GRE/VXLAN support
C. MAC learning
D. STP

### Q29. Which Mininet topology best represents data center networks?

A. Linear
B. Single
C. Tree
D. Custom spine-leaf

### Q30. Which OpenDaylight component enforces application intents?

A. MD-SAL
B. Intent framework
C. OpenFlow plugin
D. OVSDB

Q31. Which OpenDaylight clustering design avoids single point of failure?

A. Standalone controller
B. Active-active cluster
C. Cold standby
D. Local datastore

Q32. Which OVS datapath processes packets at kernel level?

A. User space daemon
B. ovs-vswitchd
C. Kernel module
D. Controller

Q33. Which MD-SAL API type is auto-generated from YANG?

A. CLI API
B. RESTCONF API
C. Northbound API bindings
D. Southbound API

Q34. Which OpenDaylight feature supports rapid application development?

A. Hard-coded flows
B. Model-driven abstractions
C. Static routing
D. Manual provisioning

Q35. Which Mininet capability allows testing controller failover?

A. Static hosts
B. Multiple controllers
C. Single switch
D. Fixed topology

Q36. Which Open vSwitch component handles control plane interaction?

A. Kernel datapath
B. ovs-vswitchd
C. NIC driver
D. Flow cache

Q37. Which OpenDaylight datastore is read by applications for network state?

A. Config
B. Operational
C. Local
D. Flow

Q38. Which OpenDaylight feature enables REST-based management?

A. CLI only
B. RESTCONF/REST APIs
C. SNMP only
D. FTP

Q39. Which SDN lab setup is most cost-effective?

A. Physical hardware only
B. Cloud DC only
C. Mininet with ODL
D. MPLS lab

Q40. Which statement best describes L2Switch application?

A. Routes packets at Layer 3
B. Performs NAT
C. Implements MAC-based forwarding
D. Encrypts traffic