

## CCNA 2 Chapter 8 v5.0 Exam Answers 2014

1

**Which OSPF component is identical in all routers in an OSPF area after convergence?**

routing table

**link-state database\***

SPF tree

adjacency database

2

**Which three statements describe features of the OSPF topology table? (Choose three.)**

**When converged, all routers in an area have identical topology tables.\***

Its contents are the result of running the SPF algorithm.

After convergence, the table only contains the lowest cost route entries for all known networks.

**It is a link-state database that represents the network topology.\***

The topology table contains feasible successor routes.

**The table can be viewed via the show ip ospf database command.\***

3

**A router is participating in an OSPFv2 domain. What will always happen if the dead interval expires before the router receives a hello packet from an adjacent DROTHER OSPF router?**

SPF will run and determine which neighbor router is «down».

OSPF will run a new DR/BDR election.

**OSPF will remove that neighbor from the router link-state database.\***

A new dead interval timer of 4 times the hello interval will start.

4

**Which command will provide information specific to OSPFv3 routes in the routing table?**

show ip route ospf

show ip route

**show ipv6 route ospf\***

show ipv6 route

5

**Which wildcard mask would be used to advertise the 192.168.5.96/27 network as part of an OSPF configuration?**

0.0.0.32

**0.0.0.31\***

255.255.255.223

255.255.255.224

6

**A network administrator enters the command `ipv6 router ospf 64` in global configuration mode. What is the result of this command?**

**The OSPFv3 process will be assigned an ID of 64.\***

The router will be assigned a router ID of 64.

The router will be assigned an autonomous system number of 64.

The reference bandwidth will be set to 64 Mb/s.

7

**Fill in the blank.**

The election of a DR and a BDR takes place on » **multiaccess** » networks, such as Ethernet networks.

8

**Fill in the blank.**

OSPF uses » **cost** » as a metric.

9

**Which command should be used to check the OSPF process ID, the router ID, networks the router is advertising, the neighbors the router is receiving updates from, and the default administrative distance?**

**show ip protocols\***

show ip ospf interface

show ip ospf

show ip ospf neighbor

10

**Which OSPFv3 function works differently from OSPFv2?**

**authentication\***

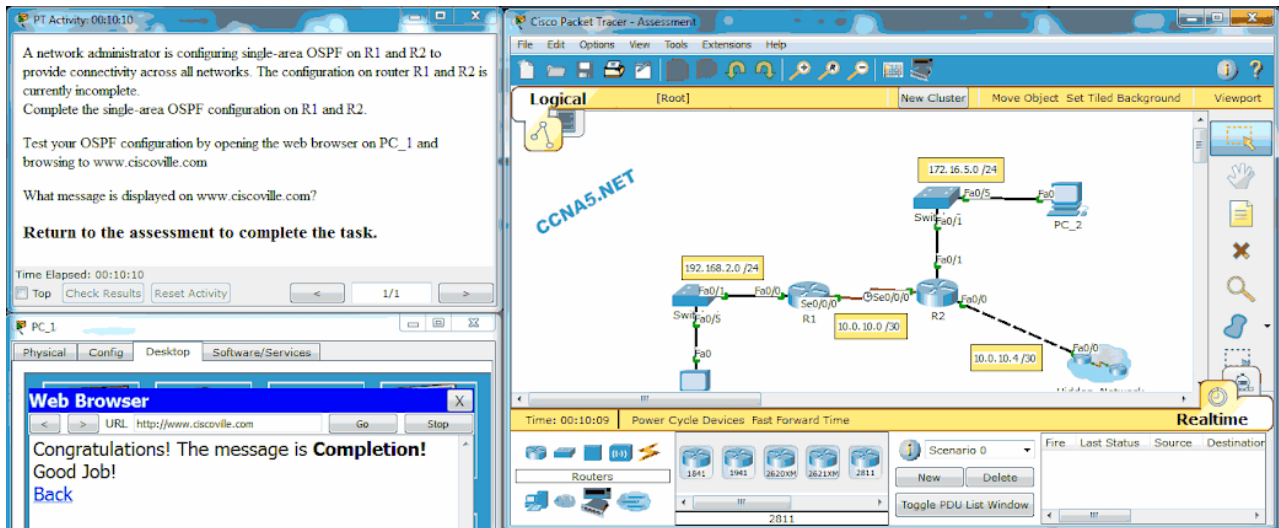
metric calculation

hello mechanism

election process

OSPF packet types

11



## Launch PT – Hide and Save PT

Open the PT Activity. Perform the tasks in the activity instructions and then complete the task.

What message is displayed on [www.ciscoville.com](http://www.ciscoville.com)?

The correct configuration on R1 is:

**router ospf 10**

**network 192.168.2.0 0.0.0.255 area 0**

**network 10.0.10.0 0.0.0.3 area 0**

The correct configuration on R2 is:

**router ospf 10**

**network 10.0.10.0 0.0.0.3 area 0**

**network 10.0.10.4 0.0.0.3 area 0**

**network 172.16.5.0 0.0.0.255 area 0**

**Completion!\***

Converged!

Success!

Finished

12

**Fill in the blank. Do not use abbreviations.**

To quickly verify OSPFv3 configuration information including the OSPF process ID, the router ID, and the interfaces enabled for OSPFv3, you need to issue the command »

**show ipv6 protocols »**

13

By order of precedence, match the selection of router ID for an OSPF-enabled router to the possible router ID options. (Not all options are used.)	
First precedence	Loopback interface address 10.1.1.1
Second precedence	Serial interface IP address 192.168.10.1
Third precedence	FastEthernet interface IP address 192.168.1.1
Fourth precedence	Configured router ID 1.1.1.1
	Loopback interface IP address 172.16.1.1

Place the options in the following order:

Third precedence

Fourth precedence

– not scored –

First precedence

Second precedence

14

Match the description to the term. (Not all options are used.)	
This is the algorithm used by OSPF.	adjacency database
This is where the details of the neighboring routers can be found.	Shortest Path First
This is where you can find the topology table.	single-area OSPF
All the routers are in the backbone area.	DUAL
	link-state database
	multiarea OSPF

Place the options in the following order:

This is where the details of the neighboring routers can be found.

This is the algorithm used by OSPF.

All the routers are in the backbone area.

– not scored –

This is where you can find the topology table.

– not scored –

15

Which three statements describe the similarities between OSPFv2 and OSPFv3?  
(Choose three.)

They both have unicast routing enabled by default.

They both use the exit interface address as the source address when sending OSPF messages.

**They both use the same DR/BDR election process.\***

They both support IPsec for authentication.

**They both share the concept of multiple areas.\***

**They both are link-state protocols.\***

**16**

**What is a function of OSPF hello packets?**

to send specifically requested link-state records

**to discover neighbors and build adjacencies between them\***

to request specific link-state records from neighbor routers

to ensure database synchronization between routers

**17**

Match the information to the command that is used to obtain the information. (Not all options are used.)	
BW 1544 Kbit/sec	show ip ospf neighbor
Routing Protocol is "ospf 10"	show running-configuration
Neighbor ID of 3.3.3.3	show ip ospf
Routing Process "ospf 10" with ID 1.1.1.1	show ip protocols
	show interface serial 0/0/0

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**Place the options in the following order:**

**Neighbor ID of 3.3.3.3**

**– not scored –**

**Routing Process «ospf 10» with ID 1.1.1.1**

**Routing Protocol is «ospf 10»**

**BW 1544 Kbit/sec**

**18**

**What are the two purposes of an OSPF router ID? (Choose two.)**

**to uniquely identify the router within the OSPF domain\***

to enable the SPF algorithm to determine the lowest cost path to remote networks

to facilitate the transition of the OSPF neighbor state to Full

**to facilitate router participation in the election of the designated router\***

to facilitate the establishment of network convergence

**19**

**Which command will verify that a router that is running OSPFv3 has formed an adjacency with other routers in its OSPF area?**

**show ipv6 ospf neighbor\***

show ipv6 route ospf

show ipv6 interface brief

show running-configuration

**20**

**Single area OSPFv3 has been enabled on a router via the ipv6 router ospf 20 command. Which command will enable this OSPFv3 process on an interface of that router?**

**ipv6 ospf 20 area 0\***

ipv6 ospf 20 area 20

ipv6 ospf 0 area 20

ipv6 ospf 0 area 0

**21**

**When a network engineer is configuring OSPFv3 on a router, which command would the engineer issue immediately before configuring the router ID?**

**ipv6 router ospf 10\***

ipv6 ospf 10 area 0

interface serial 0/0/1

clear ipv6 ospf process

**22**

**Which criterion is preferred by the router to choose a router ID?**

the IP address of the highest configured loopback interface on the router

**the router-id rid command\***

the IP address of the highest active OSPF-enabled interface

the IP address of the highest active interface on the router

**23**

**Which OSPF packet contains the different types of link-state advertisements?**

LSR

**LSU\***

DBD

LSAck

hello

**24**

**What does a Cisco router use automatically to create link-local addresses on serial interfaces when OSPFv3 is implemented?**

**an Ethernet interface MAC address available on the router, the FE80::/10 prefix, and the EUI-64 process\***

the MAC address of the serial interface, the FE80::/10 prefix, and the EUI-64 process

the FE80::/10 prefix and the EUI-48 process

the highest MAC address available on the router, the FE80::/10 prefix, and the EUI-48 process