

# CCNA (Cisco Certified Network Associate )



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# Cisco Certified Certification



## ❖ Entry

- **CCENT**

## ❖ Associate

- **Design (CCDA)**
- **Routing and Switching (CCNA)**
- **Security (CCNA Security)**
- **SP Operations (CCNA SP Ops)**
- **Voice (CCNA Voice)**
- **Wireless (CCNA Wireless)**





## ❖ Professional

- Design (CCDP)
- Routing & Switching (CCNP)
- Security (CCSP)
- Service Provider (CCIP)
- Voice (CCVP)
- Wireless (CCNP Wireless)





## ❖ Expert

- CCDE Design Expert
- CCIE SP Operations
- CCIE Routing and Switching
- CCIE Security
- CCIE Service Provider
- CCIE Storage Networking
- CCIE Voice
- CCIE Wireless

## ❖ Architect

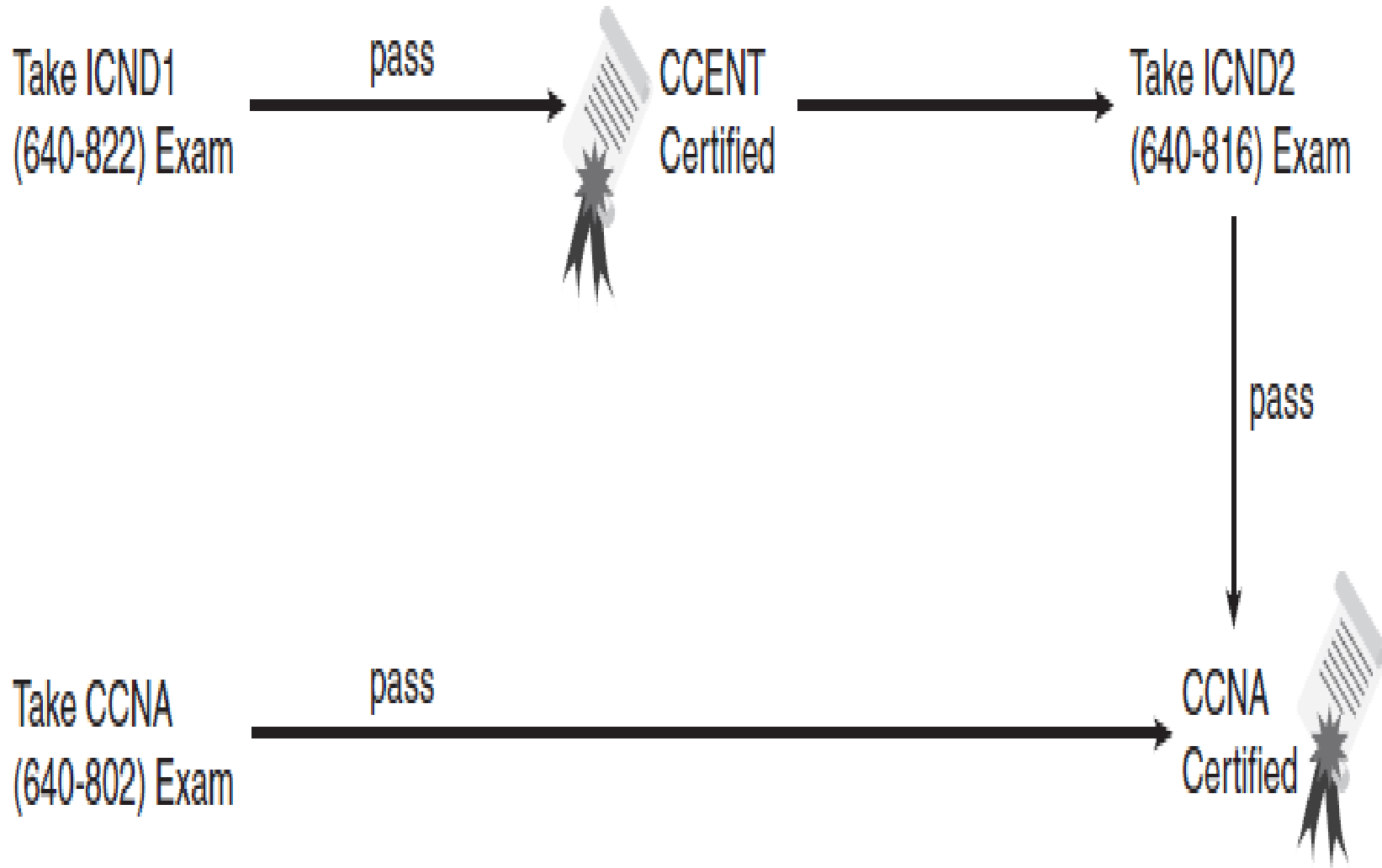
- Cisco Certified Architect





- ❖ The first three versions of the CCNA certification required that you pass a single exam to become certified.
  - 1998, 2000, and 2002
- ❖ For the current certifications, announced in June 2007
  - ICND1 (640-822) exam
  - ICND2 (640-816) exam
  - CCNA (200-120) exam

# CCENT & CCNA Certified



# CCNA Certification





# CCNP Certification



## Cisco Career Certifications

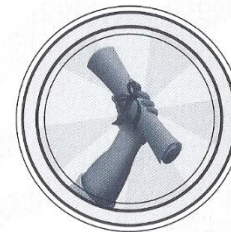
**Chih-Hung Chao**

HAS SUCCESSFULLY COMPLETED THE  
CISCO CAREER CERTIFICATIONS TEST REQUIREMENTS  
AND IS RECOGNIZED AS A

**Cisco Certified Network Professional – CCNP**

DATE: June 23, 2000  
CISCO ID# CSC010031619

John Chambers  
President and CEO  
Cisco Systems, Inc.





# Career Certifications Business Card



**Company ABC, Inc.**

Jane Doe  
Senior Council

650 555-1212  
janed@abcinc.com

100 El Camino Real  
Palo Alto, CA  
94306-2155





## ❖ 教科書

- CCNA 網路規劃與管理實務

## ❖ 參考書

- CCENT/CCNA ICND1專業認證手冊 (第三版)  
(碁峰)
- CCENT/CCNA ICND2專業認證手冊 (第三版)  
(碁峰)
- CCNA模擬實戰演練 (上奇資訊)



- ❖ **第01周**：課程基本簡介
- ❖ **第02周**：網路基本運作認識
- ❖ **第03周**：網路模型運作、ICMP與ARP協定
- ❖ **第04周**：網際網路協定IPv4規劃
- ❖ **第05周**：Cisco IOS介紹與常用設定
- ❖ **第06周**：交換器基礎功能介紹
- ❖ **第07周**：路由協定原理介紹
- ❖ **第08周**：基礎路由協定RIP
- ❖ **第09周**：期中考



- ❖ **第10周**：OSPF路由協定
- ❖ **第11周**：網際網路協定IPv6介紹與設定
- ❖ **第12周**：IPv6 NDP、Auto-Config and ICMPv6
- ❖ **第13周**：交換器進階功能介紹
- ❖ **第14周**：廣域網路介紹
- ❖ **第15周**：期末分組報告
- ❖ **第16周**：期末分組報告
- ❖ **第17周**：期末考
- ❖ **第18周**：期末總檢討



## ❖ Packet Tracer 6.0.1

- <http://mrtg.nuk.edu.tw/~wilson/pt6.exe>

## ❖ Wireshark

- <http://www.wireshark.org/>

## ❖ 上課資料

- 新版高大教學平台
  - <http://elearning2.nuk.edu.tw/>

## ❖ Exam Engine and Questions on the CD



## ❖ 平時成績：**30%**

- 包括課堂表現、實作練習、作業及分組報告。

## ❖ 出席率：

- 1.全勤者，本項成績**10分**。
- 2.缺席**1**次不扣分；缺席**2**次本項成績**8分**；缺席**3**次本項成績**6分**；缺席**4**次本項成績**4分**；缺席**5**次本項成績**2分**；缺席**6次(含)**以上則本項成績以**0分**計。

## ❖ 期中考：**30%**

## ❖ 期末考：**30%**





## 高雄大學資訊管理學系 102 學年度第 2 學期

### CCNA 網路認證課專題報告日程表(Ref. ICND2\_v2)

組別	報告日期	章節	頁次
第一組	05.20	5.2	202 ~ 211
第二組	05.20	5.3 ~ 5.4	211 ~ 223
第九組	05.20	15.2 ~ 15.4	528 ~ 539
第三組	05.27	7.2 ~ 7.3	270 ~ 288
第四組	05.27	7.4	288 ~ 300
第五組	05.27	10.2	380 ~ 389
第六組	06.03	10.3	389 ~ 402
第七組	06.03	11.2 ~ 11.3	408 ~ 417
第八組	06.03	11.4	418 ~ 427

# Exam Engine



## Pearson IT Certification Practice Test

電腦

檔案 電腦 檢視 管理

內容 開啟 重新命名 存取 連線 新增一個 解除安裝或變更程式 系統內容

位置 網路 媒體 網路媒體 網路位置

我的最愛

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桌面

最近的位置

媒體櫃

文件

音樂

視訊

圖片

電腦

OS (C:)

DATA (D:)

個人資料夾

email

下載

我的文件

GomPlayer

Google

Music

日記

我的分享

旅遊行程

通訊錄

Outlook 檔案

Wilson

自訂 Office 範本

我已收到的檔案

4 個項目 已選取 1 個項目

Adobe Flash Player 10

CCENT/CCNA ICND1 640-822 Official Cert Guide, Third Edition

Main Menu

Cisco Press Support, Registration, and Updates  
This section provides instructions for activating the exam and Web links to the [CiscoPress.com](http://CiscoPress.com) website that allow you to register your book and check for important product updates.

Install the Pearson IT Certification Practice Test  
This starts the installation process for the Pearson IT Certification Practice Test exam engine.

Install the CCNA ICND1 640-822 Network Simulator, Lite Edition  
This starts the installation process for the Pearson Network Simulator, Lite Edition.

View Videos  
This opens the video library.

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This opens various Cisco Press samples resources.

Play Free Networking Games  
This allows you to install free and demo networking games.

Premium Edition eBook and Practice Test  
This will take you to the **Pearson IT Certification** website, where you can learn more about and purchase premium edition eBooks and practice tests for this exam. Be sure to check out the **SPECIAL OFFER** on the activation card that came in the DVD sleeve of your book for a deep discount on the Premium Edition of this book, which includes PDF and EPUB formats, enhanced practice test engine, two additional ICND1 practice tests and two additional full CCNA practice tests.

Exit

上午 11:04  
2013/9/16

# Cont.



Adobe Flash Player 10

## CCENT/CCNA ICND1 640-822 Official Cert Guide, Third Edition

### Install the Practice Test

To install the exam engine, click **Install Pearson IT Certification Practice Test**.

**Previous Users:** If you have already installed the Pearson IT Certification Practice Test from another book, you **DO NOT** need to install the software again. Simply launch the product from the Start menu or your Desktop. Click the **Activate Exam** button in the **My Products** or **Tools** tab, and enter the activation key to activate and download the free practice questions for this book.

**New Users:** You will need to create a Pearson account before downloading and activating the free practice questions. If you already have an account on [PearsonITCertification.com](http://PearsonITCertification.com), [CiscoPress.com](http://CiscoPress.com), or [InformIT.com](http://InformIT.com), you can use those account credentials to log on instead of creating a new account. When you launch the Pearson IT Certification Practice Test you will be guided through creating a Pearson account.

[Install Pearson IT Certification Practice Test](#)

Windows System Requirements:

- Microsoft Windows XP (SP3), Windows Vista (SP2), or Windows 7
- Microsoft .NET Framework 4.0 Client
- Microsoft SQL Server Compact 4.0
- Pentium class 1GHz processor (or equivalent)
- 512 MB RAM
- 650 MB hard disk space plus 50MB for each exam download

## Cont.

Setup - Pearson IT Certification Practice Test

### Welcome to the Pearson IT Certification Practice Test Setup Wizard

This will install PCPT 1.0.0.7 on your computer.

It is recommended that you close all other applications before continuing.

Click Next to continue, or Cancel to exit Setup.

[Next >](#) [Cancel](#)

# Exam questions



- ❖ The exam questions can be in one of the following formats:
  - Multiple-choice (MC)
  - Testlet
  - Drag-and-drop (DND)
  - Simulated lab (Sim)
  - Simlet

# Multiple-choice (MC)



Boson Exam Environment — v2.0.2 :: Custom Exam

File Exam Feedback Help

Cisco Press CCNA ICND 2 :: CD-I2-2-57-008-1

Question 111 of 150 0% correct ☐ Mark for review

The exhibit shows the output from commands that are issued on SW1 and SW2 in the figure. Assume that all STP parameters not implied by the text in the exhibit are default values, except for priority, where SW3 has a priority of 30,000 and SW4 has a priority of 30,001. Which of the following commands would immediately change the topology of the spanning tree?

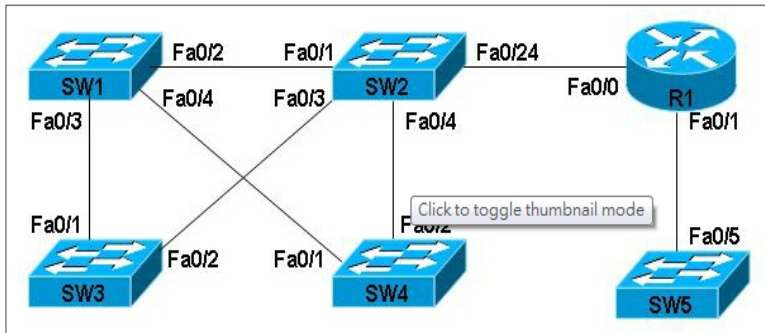


Exhibit 1 (Click to expand)

- A. ☐ The **spanning-tree vlan 1 priority 20000** global configuration command on SW1
- B. ☐ The **spanning-tree vlan 1 priority 20000** global configuration command on SW2
- C. ☒ The **spanning-tree cost 1** command on SW2 under interface fa0/1
- D. ☐ The **spanning-tree cost 1** command on SW2 under interface fa0/3
- E. ☐ The **spanning-tree vlan 1 root primary** command on SW3



Previous



Next



Show Answer



Notes



Print



Question Review



End and Grade

# Testlet

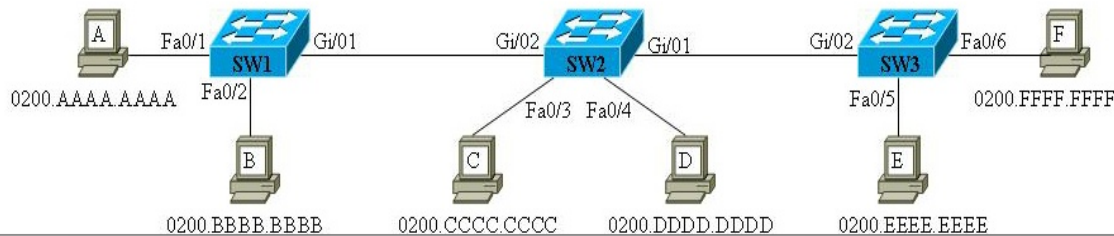


Boson Exam Environment — v2.0.2 :: Custom Exam

File Exam Feedback Help

Cisco Press CCNA ICND 2 :: CD-I2-2-58-007-1 :: CD-I2-2-58-007-1c

The diagram shows a switched LAN. None of the switches has been configured with static MAC addresses or port security. All 6 PCs in the figure can send frames successfully to the switches to which they are connected. Based on the diagram and command output below, answer the following questions.



Question 1 of 2 0% correct ☐ Mark for review

All the devices in the diagram have been up and working for a while, except for host A. (Note that as a result, the MAC address tables in the switches at this point in time will be different than the tables shown in the exhibit for this scenario.) PC A is powered on, and then the user issues a **ping 10.1.1.4** command; 10.1.1.4 is host D's IP address. PC A's ARP cache is empty when the **ping** command is issued. Which of the following is true regarding the first frame sent by PC A as a result of the **ping** command?

- A. ☐ The frame will not be forwarded to host B
- B. ☐ The frame will be forwarded to host C
- C. ☐ The frame will be forwarded to SW2, but not SW3
- D. ☐ The frame will be forwarded to host D
- E. ☐ The frame will be forwarded to host F



Previous



Next



Show Answer



Notes



Print



Question Review



End and Grade



# Drag-and-drop (DND)



Boson Exam Environment — v2.0.2 :: Custom Exam

File Exam Feedback Help

Cisco Press CCNA ICND 2 :: CD-I2-3-54-001-1

Question 142 of 150 0% correct ☐ Mark for review

Match the IPv6 address on the left with the correct type of IPv6 address on the right.

3456:1234::1	
FF00:1234::1	Global unicast
1234:5678::1	Link local (multicast)
FD91:1234::1	Link local (unicast)
FE91:1234::1	Unique local
FF02:1234::1	

Previous Next Show Answer Notes Print Question Review End and Grade

下午 01:44 2012/2/21

# Simulated lab



Boson Exam Environment — v2.0.2 :: Custom Exam

File Exam Feedback Help

### Cisco Press CCNA ICND 2 :: ICND2-SIM-2

Question 107 of 150 0% correct ☐ Mark for review

To perform this simulation question, please click the right arrow button near the bottom of the window to move to the next question.

Launch Simulator

**Boson**  
NetSim X 0:00:55

The internetwork places R1 at the hub of a partial mesh of Frame Relay VCs, with a PVC between R1-R2 and R1-R3, but no PVC connecting R2-R3. OSPF uses a single area design. The manager also said that all Frame Relay configuration should automatically learn as much information as is possible. Examine the routers and fix any configuration problems that would prevent the network from functioning properly.

Click the right arrow

Hide Topology

Previous (P) Next (N)

Ready 2012/2/21 下午 01:40

Previous Next Show Answer Notes Print Question Review End and Grade

下午 01:40 2012/2/21



## ❖ Sim

- 一般描述一個疑難問題，而你的任務是設定一個或多個路由器及交換器組態來解決它。

## ❖ Simlet

- 要求你分析工作網路和有問題的網路，將show指令輸出結果與你的網路理論和組態設定知識加以關聯在一起。

# Question ?

