

*Operating System Fundamentals - Fall 2014*  
*Final Test Preparation*

**Test Format**

- Multiple Choice (approximately 40%)
- Fill in the blank(s) (approximately 30%)
- Short answer (approximately 30%)
- Duration - 1 hour 30 minutes

**Preparation – Study the following:**

- Module 08 – TCP/IP based systems
  - Know the differences between a LAN and WAN
  - Know the strengths and weaknesses of Peer-To-Peer and Server-based networks
  - Describe the roles of servers on a network
  - What's the difference between a hub, a switch and a router?
  - Describe TCP/IP and specifically what roles TCP plays as opposed to IP
  - Define DHCP and DNS
  - Understand the different classes of IP addressing
  - What are subnet masks and how do you use them?
  - What utilities are available to help you troubleshoot a TCP/IP network problem?
- Module 09 – Virtual Machines
  - Review the steps needed to install a guest operating system on VMWare
  - Describe the concept of a Virtual Machine and how it works
  - Review the settings that you can manage in VMWare
  - What are the benefits of using a Virtual Machine? What are the scenarios that are well suited for the use of a Virtual Machine?
- Module 10 – Operating System Scripts
  - Why is scripting useful?
  - Be able to create a batch file (.bat) for Windows
    - How do you pass parameters to a batch file?
    - How do you get user input while executing the batch file?
  - Know what the following batch commands do, and how to use them:
    - ECHO
    - GOTO
    - : (colon)
    - IF
    - EXIST
    - NOT
    - ERRORLEVEL
  - What is the Windows Script Host?
    - Why is it better than batch files?

- Module 11 – Web Technologies
  - What is HTML? JavaScript? jQuery?
  - Why do we need a web server for applications?
  - What is the concept of server-side programming? Why is it useful?
  - What is the basic structure of an HTML document?
  - Write basic HTML code using the following elements:
    - Anchor
    - Paragraph
    - Headers
    - Image
  - What is CSS? Be able to demonstrate inline styles, internal style sheets and external style sheets.
  - What is the role of the browser?

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