Quiz1

1. Which is (are) the correct definition(s) for the Operating System? (Multiple Selections)

A. Middleware between the hardware and the various applications
B. Hardware drivers
C. A resource allocator
D. A control program

2. Please fill the following blanks to boot up an operating system.

(1) Load _____
(2) Select boot from Hard Disk Drive (HDD)
(3) Read Master Boot Record (MBR) Information
(4) Load _____
(5) Initialize Operating System

答案：bootstrap program, GRUB/LILO/OS boot options

3. Which is (are) Volatile Memory(Memories)? (Multiple Selections)

A. Hard Disk Drives (HDDs)
B. Static Random Access Memory (SRAM)
C. Dynamic Random Access Memory (DRAM)
D. Solid State Disks (SSDs)

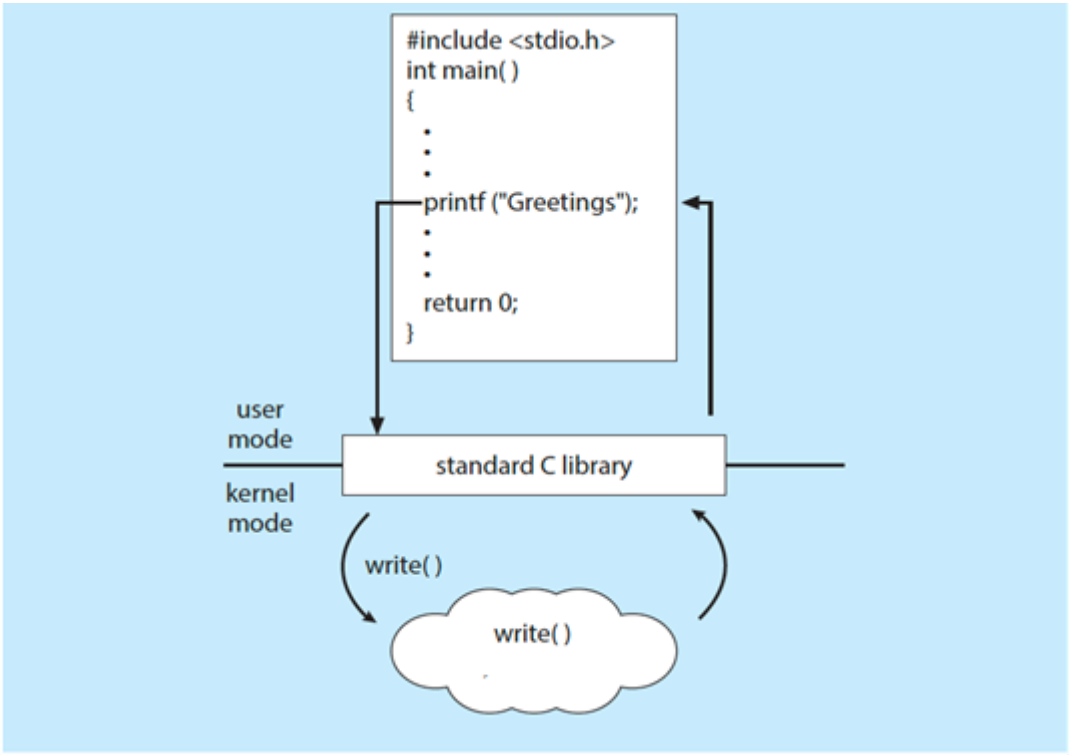
4. Which option(s) will cause an Interrupt? (Multiple Selections)

A. Finishing read data from a Hard Disk Drive (HDD)
B. Execute an instruction DIV 100 % 0 /*calculate 100 % 0 */
C. Execute an instruction LOAD R1 100 /*load a data into R1 register with an address is 100 */
D. Finishing printing the related data into monitor

5. Which is (are) Correct for Direct Memory Access (DMA)? (Multiple Selections)

A. DMA is controlled by CPU
B. DMA can decrease the interrupts
C. DMA transfers data without CPU intervention
D. DMA can speed up the data transfer

6. According to the figure, fill the blank with the name of a system call.



7. Which is (are) the benefits for microkernel? (Multiple Selections)

A. Reduce the communications between User mode and Kernel mode

B. Easier to extend

C. Easier to adapt new computer architectures

D. More reliable and secure

8. Which command(s) can shows the version of the current Linux system? (Multiple Selections)

A. # uname -a

B. # ls -a

C. # cat /proc/version

D. # cat /etc/issue

E. # lsb_release -a

下面是运行示例

[root@localhost ~]# uname -a

Linux bogon 2.6.32-504.el6.x86_64 #1 SMP Wed Oct 15 04:27:16 UTC 2014 x86_64 x86_64

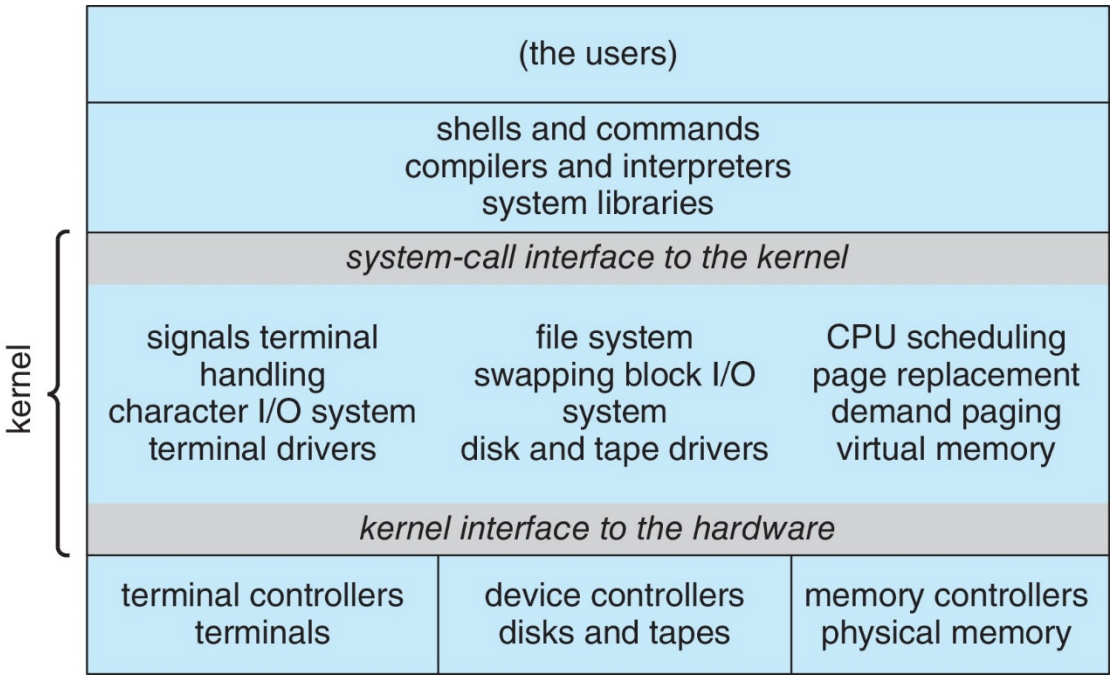
x86_64 GNU/Linux

[root@localhost /]# cat /proc/version
Linux version 2.6.32-504.el6.x86_64 (mockbuild@c6b9.bsys.dev.centos.org) (gcc version 4.4.7 20120313 (Red Hat 4.4.7-11) (GCC)) #1 SMP Wed Oct 15 04:27:16 UTC 2014

[root@localhost /]# cat /etc/issue
CentOS release 6.6 (Final)
Kernel \r on an \m

[root@localhost /]# lsb_release -a
LSB Version: :base-4.0-amd64:base-4.0-noarch:core-4.0-amd64:core-4.0-noarch:graphics-4.0-amd64:graphics-4.0-noarch:printing-4.0-amd64:printing-4.0-noarch
Distributor ID: CentOS
Description: CentOS release 6.6 (Final)
Release: 6.6
Codename: Final

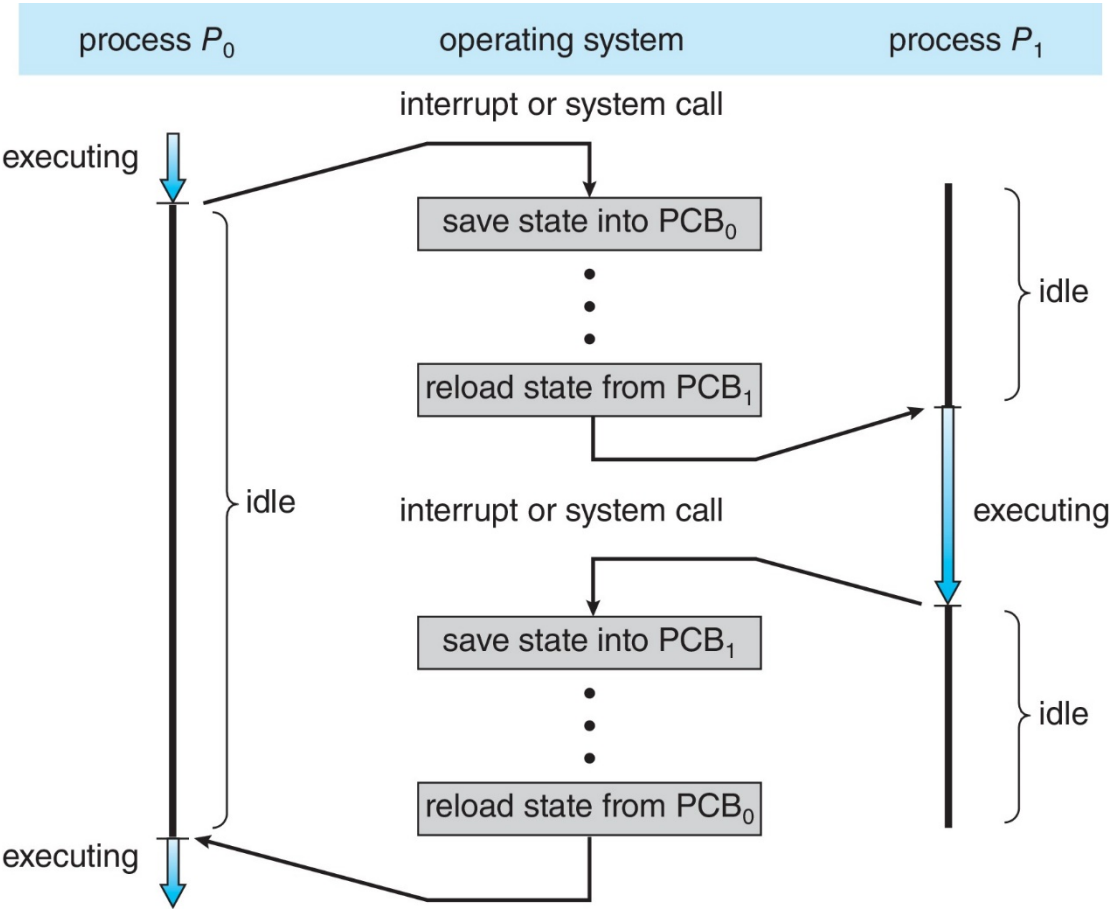
9. As we know, the traditional UNIX system is designed based on layered approach, fill the following blanks based on the following figure.



Layer 0: _____
Layer 1: _____
Layer 2: _____
Layer 3: _____
Layer 4: _____
Layer 5: _____

答案：

10. Which is (are) correct for the following context switch? (Multiple Selections)



A. The saving state of PCB0 is the same as the reloading state of PCB0
B. The saving state of PCB1 is the same as the reloading state of PCB1
C. When P0 becomes idle, the corresponding process state should be changed
D. The context switches have additional overhead for OS