

CS604 Operating Systems  
MCQz solved, by  
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Bounded Buffer is a buffer of \_\_\_\_\_ size

Variable

**Fixed**                    **P/41**

\_\_\_\_\_ is also called Swapper.

Long term

Short term

**Medium term**        **P/34**

Swap space

Shared libraries and kernel modules are stored in \_\_\_\_\_ directory.

/bin

/dev

/boot

**/lib**                    **P/23**

\_\_\_\_\_ displays information about the top processes.

Is

Cs

**Top**                    **P/64**

Cd

Cooperating processes never share any data, code, memory or state.

True

**False**                **P/2, 41, 97**

First \_\_\_\_\_ entries in Per Process File Descriptor Table are used as soon as the process is created.

1

**2**

3

4

When process opens its first file explicitly it will get descriptor number

\_\_\_\_\_

1

2

**3 Google**

4

Taking the CPU from one process and giving the CPU to another process is termed as

**Context Switching P/31**

Dispatching

Swapping

Tracking

\_\_\_\_\_ scheduler selects the process from the job pool and put them in main memory.

**Long term P/33**

Short term

Medium term

Swapper

1. Linux OS can support multiple users at a time

**a) True**

b) False

2. The Operating system is a layer of software between \_\_\_\_\_ and

\_\_\_\_\_.

**a) hardware, software application P/1**

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- b) Kernel, hardware
- c) Dos, Windows
- d) Windows, Kernel

3. The major advantage of multi-programming system is

- a) More than one jobs can be processed at a given time
- b) CPU utilization can be increased
- c) Jobs can be completed quickly
- d) All of the options are correct P/7**

4. The main characteristic of a Real time system is

- a) Efficiency
- b) Large Virtual Memory
- c) Large secondary storage device
- d) Usability P/6**

5. Command-line interpreter is also called \_\_\_\_\_ in some operating systems.

- a) Kernel
- b) Shell P/13**
- c) Signal
- d) API

6. I/O instructions are Privileged Instructions.

- a) True P/8**
- b) False

7. In Linux directory structure, there is \_\_\_\_\_ root directory.

- a) 1 P/22**
- b) 2
- c) 3
- d) 4

8. Utilities used for system administration (halt, ifconfig, fdisk, etc.) are stored in \_\_\_\_\_ directory.

- a) /dev
- b) /boot
- c) /lib
- d) /sbin P/24**

9. rm and rmdir commands are used to \_\_\_\_\_ directory.

- a) Create
- b) Move
- c) Remove**
- d) Modify

10. You can use the **mv file1 file2** command to move \_\_\_\_\_

- a) file1 to file2.**
- b) file 2 to file 1
- c) this command will not work for moving files
- d) None of the option is correct.
- e) Both option **a** and **b** are correct

11. Taking the CPU from one process and giving the CPU to another process is termed as

- a) Context Switching P/31**
- b) Dispatching
- c) Swapping
- d) Tracking

12. \_\_\_\_\_ scheduler is also called Swapper.

- a) Long term
- b) Short term
- c) Medium term**
- d) Swap space

13. A Process A that has finished working, as well as its parent process has also finished its execution. In this state the process A will be called as \_\_\_\_\_ process.

- a) **Child**
- b) Thread
- c) Zombie
- d) Fork

14. Bounded Buffer is a buffer of \_\_\_\_\_ size

- a) variable
- b) **Fixed**

15. In \_\_\_\_\_ communication the process which wants to communicate with the other process must explicitly name the recipient and the sender.

- a) **Direct**      **P/43**
- b) Indirect
- c) Automatic
- d) Self

16. In indirect inter process communication, a sender \_\_\_\_\_ mention the name of the recipient.

- a) does
- b) **does not**

17. The returned code to the child process after successful fork system call execution is

- a) 1
- b) 2
- c) 3
- d) **0**

18. If the fork system call fails, it returns

- a) 1

b) -1

c) 2

d) 0

19. When a process opens its first file explicitly it will get descriptor number

-----

a) 1

b) 2

c) 3 **Google**

d) 4

Normally, a process will start out with file descriptors 0, 1 and 2 assigned to `stdin`, `stdout` and `stderr`, and the first file descriptor that you explicitly `open` will be 3, so you'll get away with it!

20. In Unix/ Linux, by default the standard input file is attached to the

-----

a) Mouse

b) **Keyboard** **P/52**

c) Light pen

d) Joystick

The file descriptor for Standard Input (stdin) is -----

**0** **P/52**

1

2

3

The part of the program where the shared memory is accessed is called -----

Buffer

**Critical section**

Semaphore

None

Linux is only single user operating system

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T  
F

User mode can run the Privileged instructions

T  
F

Google

\_\_\_\_\_ algorithm is the optimal scheduling algorithm among all the non-preemptive scheduling algorithms.

SJF

Priority

FCFS

RR

A semaphore that cause *Busy-Waiting* is termed as \_\_\_\_\_.

Spinlock

P/111

Critical Section

Monitor

Critical Region

The TSL (TestAndSet instruction) which is the hardware solution to synchronization problem does not satisfy the \_\_\_\_\_ condition, hence not considered to be a good solution.

Bounded waiting

P/106

None

Mutual exclusion

Progress

The goals of ..... systems are maximizing user convenience and responsiveness, instead of maximizing the utilization of the CPU and peripheral devices.

Single user

P/4

Time sharing

Multi Programmed

Batched

In indirect communication processes can communicate only if they share a mailbox.

T  
F

The -----system call is used to open or create a file.

Open ()

Google

Read ()

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Write ()  
Close ()

..... are used for communication between related processes on a system.

**Pipe**            **P/49**  
FIFO  
None  
Named Fifo

A \_\_\_\_\_ is a piece of code in a cooperating process in which the process may  
Updates shared data (variable, file, database, etc.).

**Critical section**    **P/97**  
Critical Region  
All are correct  
Monitor

----- Command gives a snapshot of the current processes.

**ps**            **P/63**  
top  
who  
ls

-----command to resume the execution of a suspended job in the foreground

**fg**            **P/65**  
bg  
jobs  
kill

You can use the ----- command to display the status of suspended and  
background processes

fg  
**bg**            **P/65**  
jobs  
kill

You can terminate a foreground process by pressing -----

<Ctrl-A>  
**<Ctrl-C>**            **P/66**  
<Ctrl-Z>  
None of the given options

In Unix/ Linux, by default the standard output file is attached to the \_\_\_\_\_  
Select correct option:

- File
- Screen** P/52
- Printer
- Scanner

A time sharing system is

- Multi tasking
- Interactive
- All of these**
- Multi user

The following requirement for solving critical section problem is known as \_\_\_\_\_.  
“There exists a bound on the number of times that other processes are allowed to enter their critical sections after a process has made a request to enter its critical section and before that request is granted.”

- Progress
- Bounded Waiting**
- Mutual Exclusion
- Critical Region

The bottom layer in the layered approach of Operating System is-----

- User interface
- Hardware**
- Kernel
- None of the given options

\_\_\_\_\_ directory includes essential system boot files including the kernel image.

Select correct option:

- /bin
- /boot**
- /dev
- /etc

You can use the rm file1 command to \_\_\_\_\_ file1.

Select correct option:

retrieve  
**remove**  
make  
modify

\_\_\_\_\_ command is used to change the directory.

Select correct option:

ls  
cp  
**cd**  
mv

Kernel threads are supported directly by the operating system. The kernel performs the scheduling, creation, and management in ----- command display the status of a process.

Select correct option:

ls  
**ps**  
gcc  
cat

\_\_\_\_\_ Command displays the contents of current working directory.

Select correct option:

**Ls**                    **P/25**  
cs  
mv

Linux uses \_\_\_\_\_ directory to store system configuration files.

Select correct option:

/bin  
/dev  
/boot  
**/etc**                    **P/23**

\_\_\_\_\_ Commands in Linux is used to copy file

Select correct option:

ls

**cp**  
mv  
mkdir

**P/27**

\_\_\_\_\_ directory includes essential system boot files including the kernel image.

Select correct option:

/bin  
**/boot**      **P/23**  
/dev  
/etc

Swapper is also termed as Short term scheduler.

Select correct option:

True  
**False**

The number of processes completed per unit time is called \_\_\_\_\_.

Select correct option:

Turn around time

**Throughput**

Response time

Dispatch latency

\_\_\_\_\_ is used to request the OS by the process to take an I/O or initiating child process.

Select correct option:

**System call**

Interrupt

Trap

Signal

A parent process calling \_\_\_\_\_ system call will be suspended until children process terminates.

Select correct option:

**wait**

fork

exit

exec

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If your processor does not have two slots empty in Per Process File Descriptor Table, then your \_\_\_\_\_ system call will fail.  
Select correct option:

**Pipe**

Read  
Write  
Open

The manual pages can be read in Linux using \_\_\_\_\_ command.  
Select correct option:

**man**

wan  
desc  
help

All Threads within a process share the \_\_\_\_\_ address space.  
Select correct option:

Same  
**Different**

Taking the CPU from one process and giving the CPU to another process is termed as

- 1. Context switching**
2. Dispatching
3. Swapping
4. Tracking

The correct command for compiling C program named program.c in Linux environment is

- 1. gcc program.c -o FirstPrgram P/28 Google**
2. gcc -o FirstProgram program.c
3. gcc -z FirstProgram program.c
4. gcc program.c -m FirstPrgram

The hardware mechanism that enables a device to notify CPU is called an -----  
-----

**Interrupt**

Signal  
Trap

Process

You can display the contents (names of files and directories) of a directory in UNIX/Linux directory structure with the ----- command.

l

s

**ls**

none of the given options

The ----- system call suspends the calling process.

fork

**wait**

exec

exit

In -----addressing, the recipient is not required to name the sender.

Symmetric

**Asymmetric**

Both symmetric and asymmetric

None of the given options

The process of switching from one process to another is called latency.

1. True

**2. False P/31**

The priority of a process can be changed using \_\_\_\_\_ command.  
Select correct option:

**nice P/91**

cmd

cat

grep

The nice value helps in assigning \_\_\_\_\_ to a process.  
Select correct option:

**Priority P/91**

Weight

Time

Scheduling

You can use the -----command in UNIX to create a directory.

rmdir  
**mkdir**  
cp  
gcc

The time it takes for the dispatcher to stop one process and start another running is known as the-----.

### **Dispatch latency**

Scheduling  
Context switching  
None of the given options

First-Come, First-Served (FCFS) is a -----scheduling algorithm.

preemptive  
**non-preemptive**  
both preemptive and non- preemptive  
none of the given options

The Shortest-Job-First Scheduling algorithm can be

Preemptive only  
non-preemptive only  
**preemptive or non-preemptive.**  
None of the given options

1 MB or 1 megabyte is equivalent to----

1024 bytes  
1024<sup>2</sup> bytes (may be this)  
1024<sup>3</sup> bytes  
**100000 bytes**

-----has a hierarchical file system structure.

DOS  
Windows  
**UNIX**

None of the given options

Files that start with a ----- in UNIX/Linux directory structure are known as hidden files.

**.(dot)**  
# ( hash )  
/ (slash)  
~ (tilt)

The creating process is called a----- process while the new processes are called the ----- of that process

None of the given options  
Children, parent  
**Parent, children**  
Zombie, single

-----buffer places no practical limit on the size of the buffer

Bounded  
**Unbounded**  
Both Unbounded & bounded  
None of the given options

\_\_\_\_\_ is the basis of queuing theory which is branch of mathematics used to analyze systems involving queues and servers.  
Select correct option:

**Little's Formula**            **P/94**  
Deterministic Modeling  
Queuing Theory  
Queuing analysis

Kernel is responsible for scheduling the user level threads.  
**True**            **P/90 Google**  
False

DOS is a single user operating system.  
Select correct option:  
**True**            **Google**

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False

The scheduling of \_\_\_\_\_ are done by the operating system.

Select correct option:

**Kernel threads** P/70

User level threads

Both Kernel and User Level thread

None of the give option

A major problem with priority scheduling algorithms is \_\_\_\_\_.

Select correct option:

Deadlock

Aging

**Starvation** P/3

None of these

A major problem with priority- scheduling algorithms is **indefinite blocking** (or **starvation**).

Round Robin algorithm is most suitable for \_\_\_\_\_.

Select correct option:

**Time sharing system** P/85

Real time systems and batch systems

Running Batch programs

Expert system

Which of the following is correct definition for wait operation?

► **wait(S) {**  
**while(S<=0)** P/108

**;// no o**

**S--;**

**}**

► **wait(S) {**

**S++;**

**}**

► **wait(S) {**

**while(S>=0)**

**;// no op**

**S--;**

**}**

► **wait(S) {**

**S--;**

**}**

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