MET-IIT
Practice Mock for OS

1. How do you rename file "foo" to file " bar"?

A. mv foo bar
B. move foo bar
C. cp foo bar
D. copy foo bar

2. Which of the following character represents the user home directory?

A. /
B. .
C. ..
D. ~

3. User passwords for authentication purpose are stored in _____ file.

A. /etc/shadow
B. /etc/password
C. /etc/profile
D. ~/.profile

4. For some file the access permissions are modified to 764. Which of the following interpretation is valid?

A. Everyone can read, group can execute only and the owner can read and write.
B. Everyone can read and write, but owner alone can execute
C. Everyone can read, group including owner can write, owner alone can execute
D. None of these

5. What is meaning of wildcard character *?

A. Any number of characters including none
B. single character
C. any character specified between range
D. none of the above

6. Which of the following combination of shell commands will return the output Welcome?

A. echo "Welcome to the shell" | tr " " "\n" | sort -r| tail -n 1
B. echo "Welcome to the shell" ; tr " " "\n" ; sort -r ; tail -n 1
C. echo "Welcome to the shell" > tr " " "\n" > sort -r> tail -n 1
D. echo "Welcome to the shell" < tr " " "\n" < sort -r < tail -n 1

7. What will be the correct syntax for if-else statement in shell script?

A.
```
if [ expr ]
then
        ....
        else
        ...
```
B.
```
if [ expr ] ;
        then
        ....
        else
        ...
```
C.
```
if [ expr ]
        then
        ....
        else
        ...
        Fi
```
D.
```
if [ expr ] ;
        then
        ....
        else
        ...
        Fi
```

8. What is the output of following command
   echo "scale = 2; 10 * 100 / 30" | bc

A. 33
B. 33.00
C. 33.33
D. None of these

9. Which of following command is use to delete the history from system
A. history -d
B. history -s
C. history -r
D. history –c

10. Which command removes a directory from directory stack?
A. dirs
B. popd
C. pushd
D. rm

11. Any user wants to access the services of operating system, which of the following interface option is correct.

A. Interrupts
B. Drivers
C. library
D. system calls

12. Consider the following statements with respect to user-level threads and kernel supported threads
   I context switch is faster with kernel-supported threads
   II for user-level threads, a system call can block the entire process
   III Kernel supported threads can be scheduled independently
   IV User level threads are scheduled by to the kernel

A. II,III,IV
B. II,III
C. I,III
D. I,II

13. The system which allows execution of only one process at a time, is known as _____

A. unitasking systems
B. uniprocessor systems
C. multiprogramming systems
D. multiprocessor systems

14. Which of the following statements are true?
   I) Shortest remaining time first scheduling may cause starvation
   II) Preemptive scheduling may cause starvation
   III) Round robin is better than FCFS in terms of response time

A. I only
B. I and III only
C. II and III only
D. I,II and III

15. The processes that are residing in main memory and are waiting to execute are kept on data structure called as _____

A. execution queue
B. job queue
C. process queue
D. ready queue

16. Semaphores work for:

A. Single Threaded Processes only.
B. Multi Threaded Processes only.
C. Both (A) and (B).
D. None of the above.

17. To avoid race condition, the maximum number of processes that may be simultaneously inside the critical section is

A. Zero
B. One
C. Two
D. More than two

18. Using a larger block size in a fixed block size file system leads to :

A. better disk throughput but poorer disk space utilization
B. better disk throughput and better disk space utilization
C. poorer disk throughput but better disk space utilization
D. poorer disk throughput and poorer disk space utilization

19. Which of the following condition is required for deadlock to be possible?

A. mutual exclusion
B. process may hold allocated resources while awaiting assignment of other resources
C. no resource can be forcibly removed from a process holding it
D. All of the above

20. Which of the following are the likely causes thrashing?

A. Too many processes are loaded in the system.
B. Low physical memory
C. Both A & B
D. None of the above.

21. Sys V IPC objects are _____

A. objects on the file system
B. destroyed automatically when the program completes execution
C. destroyed automatically when system reboots
D. None of the above

22. Suppose the following disk request sequence (track numbers) for a disk with 100 tracks is given: 45, 20, 90, 10, 50, 60, 80, 25, 70. Assume that the initial position of the R/W head is on track 50. The additional distance that will be traversed by the R/W head when the Shortest Seek Time First (SSTF) algorithm is used compared to the SCAN (Elevator) algorithm (assuming that SCAN algorithm moves towards 100 when it starts execution) is _____ tracks.

A. 8
B. 9
C. 10
D. 11

23. What is the output of following command?

ps –aux

A. Display detailed information of processes currently running, of all users
B. Display detailed information of processes currently running, of current user
C. Display detailed information of processes and daemons currently running, of current terminal
D. Display detailed information of processes and daemons currently running, of current user

24. How many child processes will be created by using following code?

```
#include<stdio.h>
 #include<unistd.h>

 int main()
 {
     fork();
     fork();
     fork();
     printf("Hello World!\n");
             return 0;
         }
```

A. 3
B. 5
C. 7
D. 9

25. _____ IPC mechanism lacks internal synchronization support.

A. UNIX Socket
B. FIFO
C. Shared memory
D. Message queues

26. If the semaphore value is Zero :

A. process can lock it without blocking
B. the value never becomes zero
C. The process try to lock will block until the semaphore is unlocked.
D. None of these

27. Named pipe is also known as

A. UNIX Sockets
B. LIFO
C. Message Queus
D. FIFO

28. Which of the following are true in the case of a pipe as a mechanism of IPC?

A. A pipe is used for uni-directional communication.
B. A pipe uses a buffer and the size of the buffer can be specified by the user at the time of creation.
C. Pipes can be extended to establish communication between processes resident on different machines provided we use the process id together with IP address of the machines.
D. None of the above.

29. Object files are also known as

A. shared object files
B. archive files
C. relocatable files
D. dll files

30. _____ API is used to obtain the current thread handle.

A. pthread_id
B. pthread_call
C. pthread_pid
D. pthread_self

31. The following program consists of 3 concurrent processes and 3 binary semaphores. The semaphores are initialized as S0=1, S1=0, S2=0.

Process P0	Process P1	Process P2

while (true) {
wait (S0);
print (0);
release (S1);
release (S2);
}
	wait (S1);
	Release (S0);
		wait (S2);
		release (S0);

How many times will process P0 print '0'?

A. At least twice
B. Exactly twice
C. Exactly thrice
D. Exactly once

32. Which of following is used for mutual exclusion?

A. shared memory
B. semaphores
C. Message Queues
D. All of the above

33. Which System call is used to block the parent process till the completion of child?

A. join
B. break
C. waitpid
D. pjoin

34. In a system, if 5 people are currently using the vi editor. then the number of corresponding processes will be____.

A. 1
B. 5
C. 2
D. 0

35. In the _____ algorithm, the disk arm starts at one end of the disk and moves toward the other end, servicing requests till the other end of the disk. At the other end, the direction is reversed and servicing continues.

A. LOOK
B. SCAN
C. C-SCAN
D. C-LOOK

36. Which of the following loader is executed when a system is first turned on or restarted?

A. Boot loader
B. Compile and Go loader
C. Bootstrap loader
D. Relating loader

37. The system call msgget _____

A. changes permission of message queue
B. maps message queue with address space of processes
C. deletes message queue
D. creates message queue or obtain the id for existing one.

38. Which of the following control structure is not used for repeating code execution?

A. for
B. while
C. until
D. case

39. From the statements identify the conditions under which a deadlock happens:

a. Mutual exclusion
b. Hold and wait
c. Preemption
c. No preemption
d. Round-robin scheduling
e. Cyclic procedure calls
f. Circular wait

A. a,b,c,e
B. a,b,e,f
C. a.c,b,f
D. a,f,d,c

40. Which of the following is/are advantage of virtual memory?

A. Faster access to memory on an average
B. Processes can be given protected address spaces.
C. Minimizes CPU utilization.
D. Programs larger than the physical memory size can be run.