## Question 1

The First variation of **Readers-Writers Problem** in which no reader kept waiting unless writer has permission to use shared object has

1. Starvation for both reader and writer process
2. Starvation for writer process
3. Starvation for reader process

## Question 2

In this Linux protection command ( -rwxr-xr-x ), what is the permission mode for group to pubic_executible file?

1. Read, write, execute
2. Read only
3. Read, execute

## Question 3

Storing parameters in a block or stack instead of passing them in registers to the OS is because

1. this way do not limit the number or length of parameters being passed

   this way is the simpliest

2.

3. Both answer 1 & 2 are true

**Question 4**

..... model is faster because the communication is under the control of the processes not the operating system

1. Shared memory
2. Socket
3. Message passing

## Question 5

End, abort, load, execute are some examples of which system call type?

1. File management
2. Information maintenance
3. Process control

## Question 6

**Non-preemptive** kernel is

1. More responsive
2. Suitable for real-time programming
3. Free of race condition

## Question 7

1. In the **indirect** interprocess communication, what is **A** referred to, in the system call send ( **A** , message)

- 1. Address of sender
- 2. Mailbox
- 3. Address of receiver

## Question 8

The main objective of multiprogramming is to

1. maximize CPU utilization
2. let the user interact with all processes
3. Less I/O

## Question 9

OS services mostly accessed by programs via Application Programming Interface (API) rather than direct system call use because:

1. Portability
2. Dealing system calls can be complicated
3. Both answer 1 & 2 are true

## Question 10

Loadable Kernel is implemented in the ..... structure

1. Monolithic

2. Modules

3. Layered

## Question 11

.....Selects which processes should be brought into the ready queue

1. short-term scheduler
2. Long-term scheduler
3. medium-term scheduler

## Question 12

spends more time doing computations; few very long CPU bursts

1. **I/O-bound process**
2. short-term scheduler
3. **CPU-bound process**

## Question 13

Multiple systems working together are called

1. asymmetric multiprocessor
2. clustered systems
3. symmetric multiprocessor

## Question 14

get time or date, set time or date are some examples of which system call type?

1. Process control
2. File management
3. Information maintenance

## Question 15

In the **direct symmetry addressing** communication, what is **Q** referred to, in the system call: **send**( ***Q*** , *message*)

- 1. Mailbox
- 2. Address of receiver
- 3. Address of sender

**Question 16**

A system in which CPU switches jobs so frequently that users can interact with each job while it is running, creating interactive computing called

1. multitasking
2. multiprogramming
3. batch system

## Question 17

One of the **system goals** that should taking into account when implement OS is

- (●) 1. easy to design
- ( ) 2. convenient to use
- ( ) 3. easy to learn

## Question 18

The one program running at all times on the computer is

- (●) 1. Kernel
- ( ) 2. Application program
- ( ) 3. System program

## Question 19

1. Consider process 1 and process 2, to ensure that statement 1 happens before statement 2 as follow: **process 1**: statement 1; signal(synch);

**process 2**: wait(synch); statement 2;
a semaphore "**synch**" must be initialized to:

- a. 0
- b. 1
- c. More than 1

## Question 20

a. There is a dual mode operation in modern computer systems that is used for:

- (●) 1. Protection
- ( ) 2. Parallelism
- ( ) 3. Concurrency

## Question 21

Programming interface to the services provided by the OS

- (●) 1. System Calls
- ( ) 2. Application programs
- ( ) 3. System programs

## Question 22

1. The output of LINE A is :

```
int value = 5;
int main(){pid t pid; pid = fork();
if (pid == 0) { /* child process */
 value += 10;  return 0;
}else if (pid > 0) { /* parent process */
wait(NULL);
value += 5;
printf("value = %d",value); /* LINE A */
return 0; }}
```

- (●) 1. value = 10
- ( ) 2. value = 15
- ( ) 3. value = 20

**Question 23**

_____ is a program stored in ROM and is responsible to load operating system kernel to main memory and starts execution

1. system program
2. kernel
3. bootstrap

**Question 24**

1 points Saved

The interrupt that generated by the software are called

1. exception
2. interrupt driven
3. A. interrupt vector

⚠ Moving to the next question prevents changes to this answer.

Question **24** of **30**

## Question 25

**Handheld computers** want an operating system that cares more abou

1. maximizing resource utilization
2. optimizing battery life
3. ease of use

## Question 26

Child process that has finished or terminated, but its parent didn't invoke **wait()** to collect its status is

1. Synchronized
2. Zombie
3. Orphan

## Question 27

System programs that provide text editors to create and modify files are under this category:

1. Program execution
2. File modification
3. Programming-language support

## Question 28

A **critical section** is a program segment:

1. Which should run in certain specific amount of time
2. Which avoids deadlocks
3. Where shared resources are accessed synchronically

## Question 29

..... distributing **threads** across cores, each thread performing **unique operation**

1. Concurrency
2. Task parallelism
3. Data parallelism

## Question 30

**Shared computer** wants an operating system that cares more about

1. ease of use
2. maximize resource utilization
3. optimizing for battery life