Score:

Operating Systems

Midterm exam

Student Name:

Student ID:

Serial Number:

_____

Q(1): Matching

- Match each statement in (A) with the most appropriate term in (B):

(A)	(B)
1. To keep track of which users use how much and what kinds of computer resources.	(6) **Program execution**.
2. What will be done?	(1) **Accounting**.
3. Get process attributes.	(9) **Mechanism**.
4. Set of all processes residing in main memory, ready and waiting to execute.	(5) **Resource allocation**.
5. When multiple users or multiple jobs running concurrently, resources must be allocated to each of them.	(7) Status information.
6. The system must be able to load a program into memory and to run that program, end execution, either normally or abnormally.	(4) **Ready queue**.
7. Some ask the system for info - date, l time, amount of available memory, disk space, number of users .	(8) **Communications**.
	(3) Process control.
8. Processes may exchange information, on the same computer or between computers over a network.	(2) **Policy**.
9. How to do it?.	(10) **Job queue**.
10. set of all processes in the system.	

Q(2): Multiple Choice

- Choose the correct answer for each question or sentence:

1. The operating system manages
a. processor
b. disk and I/O device
c. memory
d. all of these

2. A task in a blocked state
a. must still be placed in the run queues
b. is running
c. is executable
d. is waiting for some temporarily unavailable resource

3. One of the services provided by the operating system: _____ The operating system loads the contents (or sections) of a file into memory and begins its execution.
 a. File-system manipulation
 b. Program execution
 c. I/O operations
 d. Both a and b

4. _____ can be thought of as bundles of useful system calls. They provide basic functionality to users so that users do not need to write their own programs to solve common problems.
a. System programs
b. kernel
c. Shell
d. Operating System

5. Application Programming Interface is more difficult to work with than system calls
    a. True
    b. False

6. The number of processes that are completed per unit is called?
    a. CPU utilization.
    b. Response time.
    c. Throughput time.
    d. Turnaround time.

7. A software may trigger an interrupt by executing a special operation called a system call or a monitor call
    a. True
    b. False

8. How Doses the Computer find The Operating System:
A) Through Bootstrap
B) Using Hard Disk
C) Special Program
D) None Of Them
    abase

9. One program running at all times on the computer is the ………
a. compiler

 b. kernel

 c. database system

d. All of the above

10. A **LONG-term scheduler** :

A) Is invoked when a new process arrives
B) Is invoked when the CPU is overloaded
C) is invoked frequently
D) None Of Them

Q3:Answer the following :

3-1 As a process executes, it changes *state*, what are the five states of a process and   explain each of them.

new: The process is being created
running: Instructions are being executed
waiting: The process is waiting for some event to occur
ready: The process is waiting to be assigned to a processor
terminated: The process has finished execution

3-2 List the main services provided by the operation system?

Solution:

1.   Program excecution
2.   I/O operations
3.   File-system manipulation
4.   Communication
      Error detection

Best regards,,,,   Prof. Dr. Mohammad Al-