

Section: -----

الاسم: -----

1. (5 Points) True (T) or False (F), and state Why?

- a. Possible disadvantages of implementing an OS in a higher-level language are reduced speed. [T]
-----HLL is not a 1 to 1 associated with machine code which increase the amount of used instructions-----
- b. The device queue set of all processes residing in main memory, ready and waiting to execute [F]
-----Ready Queue-----
- c. Google Chrome Browser enhance its speed performance by creating a thread for each tab. [F]
-----Process for each tab-----
- d. Concurrency implies a system can perform more than one task simultaneously. [F]
-----Parallelization-----
- e. Running Multiple threads over a single processor won't speed up the performance. [T]
-----it will only enable multi tasking-----

2. (5 Points) Complete the following sentences:

- a. ...BIOS (Startup booting program)..... is a small piece of code, stored in ROM or EEPROM locates the kernel, loads it into memory, and starts it.
- b. Stack , and heap are two sections of the process located dynamically in the memory.
- c. Solaris is an operating system supports many-to-many multithreading model.
- d. Thread pool is an implicit technique supported by Windows API to bound the number of threads.

3. (3 Points) Suppose you have a 50 lines program where 28 lines can run simultaneously (in parallel), measure the speedup which could happen if you run this program on a 4 cores processor.

----- $1/(s*(1-s)/n)$ -----
