**3.1 What are the four components of a process**

Text, data, heap, stack

**3.2 Provide at least three possible states a process may be in.**

New, running, waiting, ready, terminated

**3.3 What is a Process Control Block (PCB) ?**

A Process Control Block (PCB) is a data structure used by computer operating system to store all the information associated with each process, also called Task Control Black (TCB)

**3.4 What is another term for process?**

**Job**

**3.5 True or False? Most operating systems allow a process to have multiple threads.**

True

**3.6 What is the role of the process scheduler?**

It maximizes CPU use, selects among available processes for next execution on CPU core and maintains scheduling queues of processes **3.7 What is the degree of multi-programming?**

The degree of multi-programming describe the maximum number of processes that a single processor system can accommodate efficiently

The primary factor affecting the degree of multi-programming is the amount of memory available to be allocated to executing processes **3.8 What is the term that describes saving the state of one process, and restoring the state of another?**

Context switch **3.9 What is the term that describes saving the state of one process, and restoring the state of another?**

Context switch

**3.15 What are the two fundamental models of inter-process communication?**

Shared memory and message passing **3.16 What are the two system calls used with message-passing systems?**

Send and receive **3.17 True or False? Message passing is typically faster than shared memory.**

False, message passing systems are typically implemented using system calls and require the more time consuming task of kernel intervention **3.18 How must shared memory behave for a rendezvous to occur?**

When both send and receive are block