OS2

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Sheet 1

Introduction – Process concept – Multi threading

1. Describe the basic components of computer system. Illustrate with figure.
2. Write a brief description about the bootstrap program.
3. Define the term (operating system). Write down the basic services provided by OS.
4. What is meant by (Process – PCB)
5. Describe how to get benefits from the process control block (PCB)
6. What are the states that a process may have at any given time? Illustrate with figure.
7. What are the basic operations performed by OS for process management
8. Define the following term :(thread ) illustrate with figure.
9. Show using figures, how the threads are implemented in User-level and Kernel-Level.
10. State and explain the different models of multi-threading
11. Illustrate with figure how the multi-core system support parallel execution of threads.
12. How the threads implemented in JAVA, illustrate with simple example if needed.
13. What are the data structures common to threads in a multi-threaded process. What are the data structures that each thread should have within the process. Illustrate with figures.
14. Which of the following components of program state are shared across

threads in a multithreaded process?

a. Register values

b. Heap memory

c. Global variables

d. stack memory