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Group 25

Murtadha Alobaidi , mhaao@kth.se

Abdullah Trabulsiah, abdtra@kth.se

1) When a process creates a new process using the fork() operation, which of the following states is shared between the parent process and the child process? Stack, Heap, or Shared memory segments?

Answer:   
**Shared memory segments**

2) Explain what the output will be at LINE A.

Text

Description automatically generated

Answer: **LINE A = 15**

3) How many processes are created in the following code?

Table

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Answer: **8 with root**

4) See Section 4.1 of the “Operating Systems Concepts” book. Does the multithreaded web server described in that section exhibit task or data parallelism?

Answer:

5) What are two differences between user-level threads and kernel-level threads? Under what circumstances is one type better than the other?

Answer:

6) Describe the actions taken by a kernel to context-switch between kernellevel threads.

Answer:

7) Explain the difference between preemptive and nonpreemptive scheduling.

Answer:

8) Suppose that the following processes arrive for execution at the times indicated. Each process will run for the amount of time listed. In answering the questions, use nonpreemptive scheduling, and base all decisions on the information you have at the time the decision must be made.

Text, letter

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Answer:

9) Consider the following set of processes, with the length of the CPU burst time given in milliseconds.

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Answer: