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TRƯỜNG ĐẠI HỌC BÁCH KHOA  
KHOA KHOA HỌC VÀ KỸ THUẬT MÁY TÍNH



# HỆ ĐIỀU HÀNH

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Đề tài

## Thí nghiệm 3

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# 1 Câu hỏi

## 1.1 What the output will be at LINE A?

PARENT: value = 5

## 1.2 How many processes are created by the program shown below, including the initial parent process? How many process are created when n fork() called?

There are 8 processes created (including the initial parent process).

If you call the fork () function n times,  $2^n$  processes will be created .

## 1.3 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? Why?

Only the shared memory segments are shared between the parent process and the newly forked child process. Copies of the stack and the heap are made for the newly created process.

## 1.4 What process id (PID) and process group id are used for?

Process id (PID) identifies each running processes in an operating system. The process leader's PID will be the same as its process group ID. Additional process group members generated by the process group leader inherit the same process group ID. The operating system uses process group relationships to distribute signals to groups of processes. For example, should a process group leader receive a kill or hang-up signal causing it to terminate, then all processes in its group will also be passed the same terminating signal.