Operating Systems Assignment 1

Question 1:

1) In this question we have created a parent child relationship between two processes. First we created a new process using fork() . Now, in the child process we are printing two things: firstly, the child process id using getpid() function and second we are printing the parent process id using getppid() function. In the parent process we are printing two things: firstly, the parent process id using getpid() function then we are waiting using wait(NULL) function for the child process to complete then we are printing the child process id which will be pid. If the child process doesn't get created for some reason then code will print errors.

2) In this part first we created a child process using vfork(). Then we are waiting using wait(NULL) for the child process to complete the task. We have created a function called factorial. It's a recursive call which calculates the factorial of 4 and this task is done by child process. After that, the parent process calculates the fibonacci series. For some reason if the child process doesn't get created it will give an error.

Bonus) In this part first we created a child process using fork(). Then we are waiting using wait(NULL) for the parent process to complete the task. The parent process calculates the fibonacci series. After that the child process calculates the factorial of 4 using the function factorial() which is a recursive function. For some reason if the child process doesn't get created it will give an error.