1. What is the usage of $zero? What happens if you execute **addi $zero, $zero, 5**? (5%)

   Ans: $zero is a register stores the constant 0, because the number zero is often used in the programs, so by directly setting the register $zero to store the number zero makes accessing zero faster. Any execution try to change the value in $zero will be ignored and results in no operation.

2. How to use the stack to ensure that the value of each register is correctly saved when executing a recursive function? (5%)

   Ans: The callee will store the values in the registers into stack before writing new value into it, and will load back the values from stack to the registers before jump back to the execution of the caller.

3. What was the most challenging part for you in this homework? (10%)

   Ans: In task 4, thinking how to get back the result of fib(n-1) after calulating fib(n-2).