



Total Points: 500

Employee's Salary

You are the CEO of a company named Electric Frenzy. You have several employees working under your charge. You want to decide on salaries. There are 15 levels in your company you work at the top most i.e. 15th level and the lowest is at 1st level.

The salary distribution policy is as follows:

The salary of the employee working at the 5th level is sum of salary of employee at 4th and 3rd level and so on.

NOTE: Salary of 1st level is "5", 2nd level is "7".

Problem

1. Write a Verilog code and build a digital circuit to calculate your salary. **(150 Points)**. Also, write a testbench to validate the results.
2. Simulate the Circuit you have designed on Proteus Simulation Software. **(150 Points)**
3. Design a Circuit to calculate the salary of any level (given as input) according to the above policy. **(200 points Bonus statement)**

The output is in the form of a binary number (The decimal equivalent of the answer).

Also, give a write-up briefly describing how the circuit is working (Typed or Handwritten) up to 1-2 Pages.

RULES

1. Using unfair means to solve the PS will result in the disqualification of the entire team.
2. The marks of PS1 and PS2 will be combined and evaluated for final Results.
3. Using ROM is Strictly prohibited.
4. Failing in giving a write-up will lead to a deduction of 100 Points.

CONTACT DETAILS

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