1. Write a Verilog for loop to check if a given 8-bit input register has an alternating pattern (e.g., 01010101 or 10101010) and also if there is no pattern check the parity of the input. [3]
2. Write a Verilog for loop to check if a given 8-bit input register has an alternating pattern (e.g., 01010101 or 10101010) and also if there is no pattern check the parity of the input. [3]
3. 8 bit adder/subtractor and multiplier circuit with different function for adder/subtractor and a function for multiplier. [5]