1. (Combinational Logic Analysis) Text book problem 3-1.
12. Addition of two numbers \( X = X_4 X_3 X_2 X_1 \) and \( Y = Y_4 Y_3 Y_2 Y_1 \) is performed using the carry lookahead technique.
   (i) Write the equations for \( P_i \) (propagate), \( G_i \) (generate) and \( S_i \) (sum).
   (ii) Write the equations for \( C_2, C_3, C_4 \) and \( C_5 \) as functions of \( G_i, P_i \) and \( C_1 \).
16. (Signed number subtraction) Text book problem 3-42 (b), (c).
17. (Parallel Adder) Text book problem 3-45(a), (c).