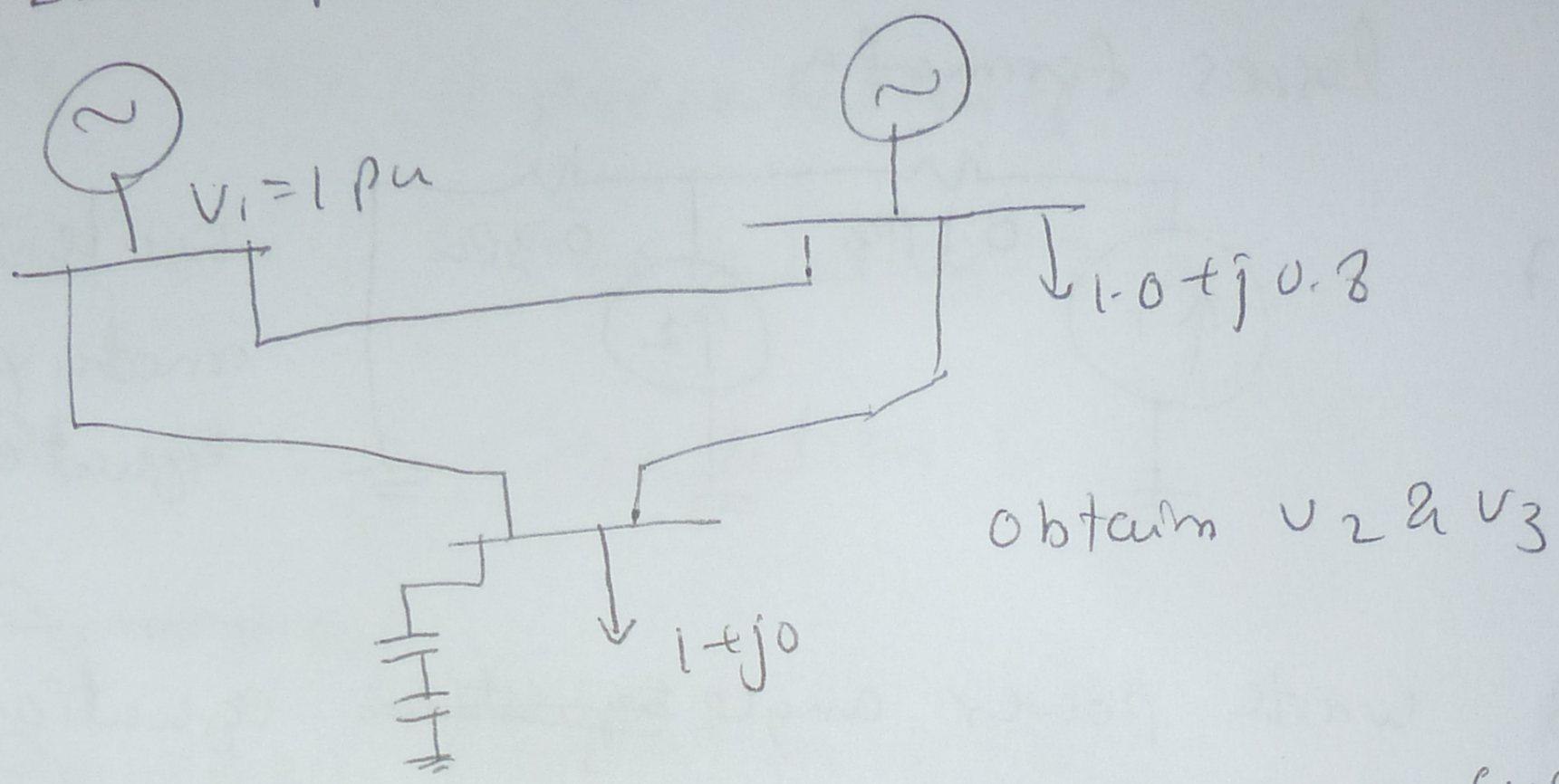
St clements University Higher Education School

IOY Technical college

BAE 505 power system optimization

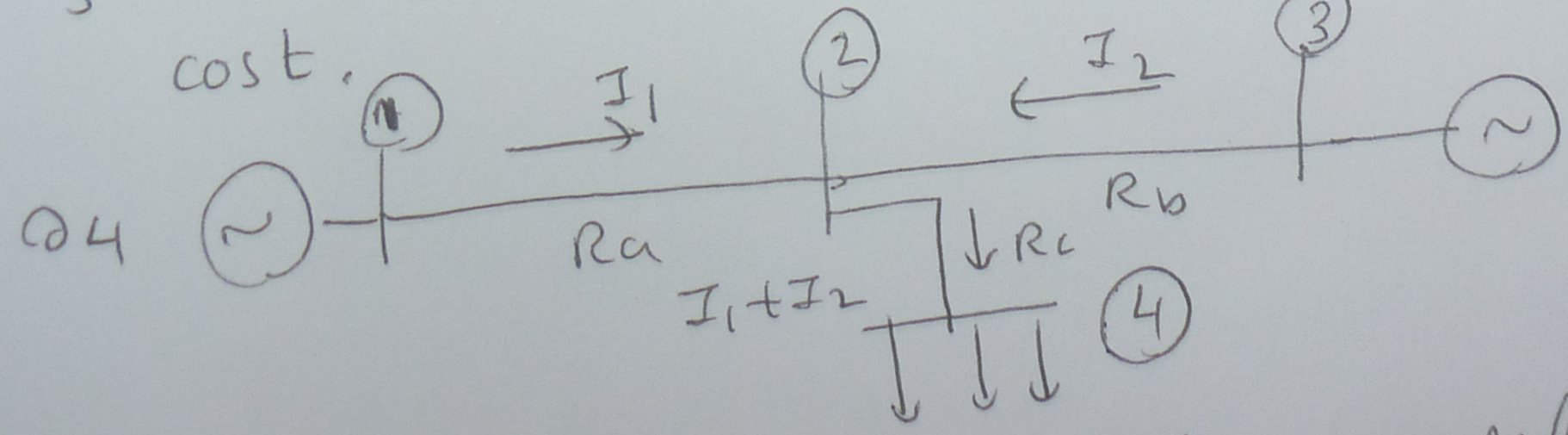
Q1 A 120KV power system is shown $Z = 6.912 + j34\ \Omega$



obtain V_2 & V_3

Q2 The Load flow data for simple power system is given. The voltage magnitude at bus 2 is to be maintained. The maximum & minimum reactive power limits of bus 2 are 0.35 & 0.0 pu respectively. Find load flow by Newton Raphson method.

Q3 Explain the concept of incremental production cost.

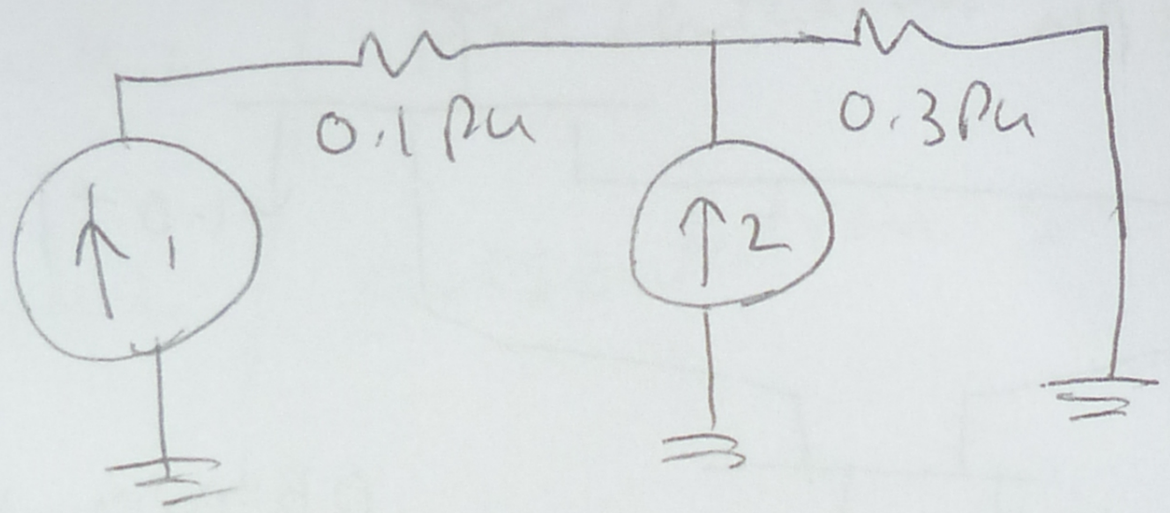


Q4 Find the method of Line loss modelling

Q5 Describe the calculation of coefficients by Kron's method.

Q6 Describe the development of transmission losses formula

Q7



write the matrix equation.

Q8 write power angle ~~equation~~ equation.

Q9 write swing equation.

Q10 write solution procedure for dispatch problem