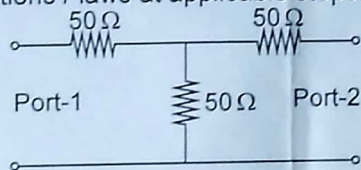


Max Marks: 20 Max Time: 1 hour

Minor IDL 712 Answer all questions giving neat diagrams 01-02-2017

Q1. For each of parameters Y_{11} , Y_{12} , Z_{11} and S_{11} for the circuit below, (i) Define the parameter, (ii) Give auxiliary circuit for computation of parameter, (iii) explaining how required termination condition is achieved (iv) Calculate the parameter value stating all assumptions / laws at applicable steps. Characteristic impedance = 50Ω (3+3+3+3)



Q 2 (a) Explain the difficulty in measuring Y parameters for any sensor / circuit which requires a DC voltage bias for its operation, when Y parameters have to be measured applicable for wide band of frequencies. (2)

Q 2(b) Draw Auxiliary circuits for S parameters S_{21} and S_{22} , (i) define the parameters, (ii) and explain for each the required port termination condition, and (iii) how it is met (3+3)