ASSIGNMENT # 3 (15 POINTS)

1. Describe in your own words, why a differential signal would not radiate EMI but a change in common signal would do it.
2. What are the various ways to have asymmetry in a differential pair? What happens when we have asymmetry in a differential pair?
3. A) Why does the differential impedance change with coupling between the transmission lines?

B) When does the return plane not have influence on the differential impedance?

1. A) Why do odd and even modes of propagation not distort the signal in the differential pair?

B) Why does coupled stripline not have far-end crosstalk but an edge-coupled microstrip pair does?

1. What is the maximum via stub length we can have in a backplane made with FR-4 material (Dk:4) for a 112Gbps signal not to be distorted?