

NAME... Pranshu Malik & Alp Tahir

The Complete Smith Chart

Black Magic Design

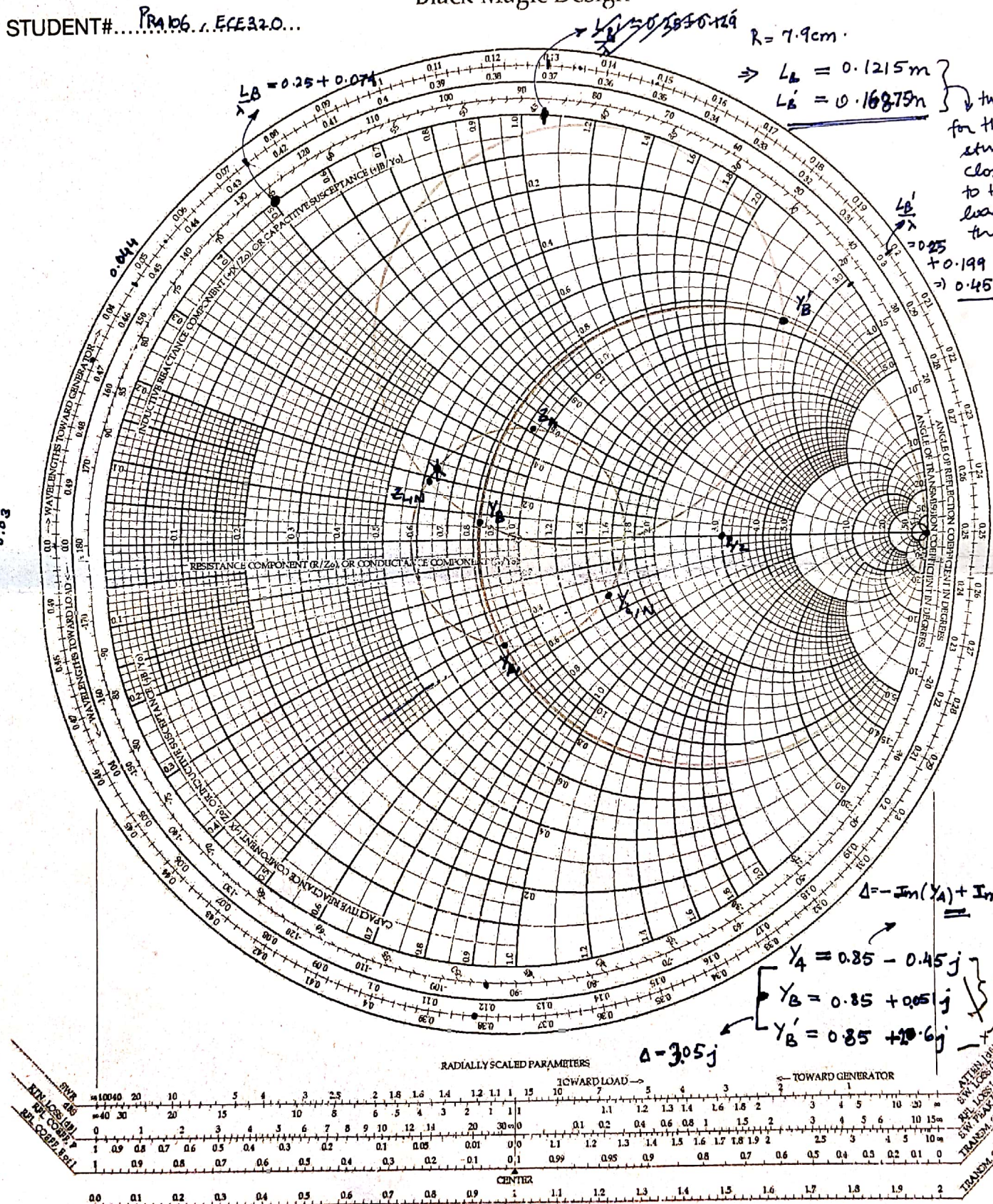
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$R = 7.9 \text{ cm}$

$\Rightarrow L_B = 0.1215 \lambda$
 $L'_B = 0.16875 \lambda$

two possible lengths for the stubs closest to the load, towards the generator

$L'_B = 0.25 + 0.199 = 0.449 \lambda = L'_B$



$\Delta = -\text{Im}(Y_A) + \text{Im}(Y_B) = j0.501$

$Y_A = 0.85 - 0.45j$
 $Y_B = 0.85 + 0.05j$
 $Y'_B = 0.85 + 1.06j$

$\Delta = 3.05j$

RADIALLY SCALED PARAMETERS

$Z_L = 31.08 + 9.32j [\Omega]$

$Z_{L,N} = 0.622 + 0.186j \rightarrow$ rotate by 0.0906λ towards gen.

$Y_{L,N} = 1.476 - 0.441j$

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