

2501 Final Exam Marking Key December 2020

Q1: 0.25 marks for knowing you measure across L. 0.25 marks for stating the correct transfer function.

Q2: 0.25 marks for having the $1/2$ factor for average power.

Q3: 0.25 for knowing the DC gain is $x/5$, and knowing the corner is 7.1

0.25 for knowing the slope is -40dB/dec and the corner is $10x$

0.25 for knowing the slope is -20dB/dec and the corner is 1000

0.25 for knowing above 1000 the slope is -40dB/dec .

Q4. 0.5 marks for the correct R_{th} 0.5marks for the correct current.

Q5. 0.5 marks for ω_0 , and 0.5 marks for the other half power point.

Q6. 0.25 marks for R_{th}/R_L . 0.25 marks for V_{th} .

Q7. 0.25 marks for τ , 0.25 marks for I_{in} and I_{final} , 0.25 marks for knowing V_x is $L di/dt$.

Q8. 0.5 marks for getting that Z_{eq} is 4ohms in one way or another.