Started on	Wednesday, 12 April 2017, 5:12 PM
State	Finished
Completed on	Wednesday, 12 April 2017, 6:15 PM
Time taken	1 hour 2 mins
Overdue	2 mins 26 secs
Grade	**100.00** out of 100.00

Question 1

Correct

Mark 100.00 out of 100.00

Q8b

Given $H(s) = \dfrac{140,000s}{(s+200)(s+7,000)}$

a) What is the zero of this function in the form $s + z_1$?

$z_1 =$ [0] ✓

b) What are the two poles of this function in the form $s + p_{1,2}$?

$p_1 =$ [200] ✓ (positive lower value)

$p_2 =$ [7000] ✓ (positive higher value)

c) What is the *gain K* in dB after putting this function in *Standard Form*?

$K =$ [-20] ✓ dB

For the following use the Bode diagram straight-line approximation conventions (do not plot the function)

d) Find the magnitude of this transfer function at $\omega = 100$ rad/sec.

$| H(j\omega = 100 \text{ rad/sec}) | =$ [20] ✓ dB

e) Find the phase angle at $\omega = 200$ rad/sec

$\theta(j\omega = 200 \text{ rad/sec}) =$ [45] ✓ ° (Degrees)

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a) $z_1 = 0$

b) $p_1 = 300$ $p_2 = 9,000$

c) K in dB = -40 dB

d) $| H(j\omega = 100 \text{ rad/sec}) | = 20$ dB

e) $\theta(j\omega = 200 \text{ rad/sec}) | = 45°$

Correct

Marks for this submission: 100.00/100.00.