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State	Finished
Completed on	Wednesday, 12 April 2017, 6:03 PM
Time taken	54 mins 33 secs
Grade	**100.00** out of 100.00

Question 1

Correct

Mark 100.00 out of 100.00

Q8a

Given $H(s) = \frac{27{,}000s}{(s+300)(s+9{,}000)}$

a) What is the zero of this function?

z_1 = 0 ✓

b) What are the two poles of this function?

p_1 = 300 ✓

(positive lower value)

p_2 = 9000 ✓

(positive higher value)

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

K = -40 ✓

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 ω = 100 rad/sec.

| H(jω = 100 rad/sec) | = 0 ✓

dB

e) Find the phase angle at ω = 300 rad/sec

θ(jω = 300 rad/sec) = 45 ✓

° (Degrees)

a) $z_1 = 0$

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

c) K in dB = -40 dB

d) | H(jω = 100 rad/sec) | = 0 dB

e) θ(jω = 300 rad/sec) | = 45°

Correct

Marks for this submission: 100.00/100.00.