Started on	Wednesday, 16 November 2016, 11:04 AM
State	Finished
Completed on	Wednesday, 16 November 2016, 11:29 AM
Time taken	25 mins 32 secs
Grade	**100.00** out of 100.00

Question 1

Correct

Mark 100.00 out of 100.00

Quiz 9c

A circuit has the following measured voltage and current at the input terminals.

$v(t) = 10 \cos(100\,t + 20°)$ V $i(t) = 2 \sin(100\,t - 50°)$ A

a) What is the frequency ω (Omega) in radians of the time varying input?

ω = 100 ✓ rad/sec

b) What is the frequency f in Hertz of the time varying input?

f = 15.92 ✓ Hz

c) What is the period T in ms (milli sec) of the time varying input?

T = 62.8 ✓ ms (milli sec)

d) What is the phase angle Φ_V in radians of the terminal voltage in the cosine convention?

Φ_V = 0.349 ✓ rad

e) What is the phase angle Φ_I in radians of the terminal current in the cosine convention?

Φ_I = -2.44 ✓ rad

f) What is the rms voltage value of the terminal voltage?

v_{rms} = 7.07 ✓ V_{rms}

g) What is the rms current value of the terminal current?

i_{rms} = 1.41 ✓ A_{rms}

Correct

Marks for this submission: 100.00/100.00.