EC_Week 11, Non-assessed

A series LCR circuit with L = 10 mH, C = 2 μF and R = 5 Ω is driven by a generator with an amplitude of 100 V and variable angular frequency ω. Find

(a) the resonant frequency ω_0 and

(b) the rms current at resonance.

When ω is 8000 rad/s find (c) the impedance Z,

(d) the rms current.