

## Electric Circuits

### Answer Sheet – Homework Set 1

Questions beginning with \*\* do not have answers on this sheet.

30 C

$$-e^{-4t}(80 \cos(50t) + 1000 \sin(50t)) \mu A$$

$$-\left(\frac{1}{25}\right)e^{-30t} [4 \cos(40t) + 3 \sin(40t)] + \frac{4}{25} C$$

-0.103 C

0

$$(-3e^{-t} + 10e^{-2t}) nA$$

-0.199 C

-20 A

22.5 C

$$(2 \sin(10t + \pi/6) + 1) \mu C$$

-3.94 C

-26.09 C

25 C

$$1200\pi \cos(120\pi t) pA$$

3 mA

$$(3t + 1) C$$

$$(16t + 4) A$$

$$(t^2 + 5t) mC$$

148 C

40 A

10 C

15  $\mu C$