

Solution for Quiz3

Paper A

Q1.

V1 n0 0 DC 20

R1 n0 n1 5K

R2 n1 n2 3K

R3 n2 0 2K

C1 n1 0 0.2u

.END

Q2.

(1). 100mA and 0V;

(2). 110mA;

(3). Critically damped;

(4). $I(t) = -1000te^{-10^5t} - 0.01e^{-10^5t} + 0.11$

Paper B

Q1.

V1 n0 0 DC 20

R1 n0 n1 1K

R2 n1 n2 2K

R3 n1 0 5k

L1 n2 0 10m

.END

Q2.

(1). 120mA and 0;

(2). 100mA;

(3). Underdamped;

(4). $I(t) = 0.02e^{-31250t}\cos(39031t) + 0.016e^{-31250t}\sin(39031t) + 0.1$