



ISRA UNIVERSITY

Islamabad Campus

Program: BTECH (Electrical)
Semester – Spring 2018

ETCA-252 Circuit Analysis-II

Assignment – 2
Marks: 15

Due Date: 23/04/2018
Handout Date: 16/04/2018

Question # 1:

Perform the following operations:

- $2\angle 45^\circ + 3\angle 45^\circ$
- $2\angle 0^\circ - 4\angle 180^\circ$
- $\frac{c_1}{c_2}$ if $c_1 = 1 + j4$ and $c_2 = 4 + j5$

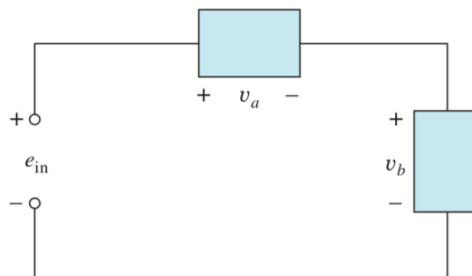
Question # 2:

Find the input voltage e_{in} of the circuit shown below:

$$v_a = 50 \sin(377t + 30^\circ)$$

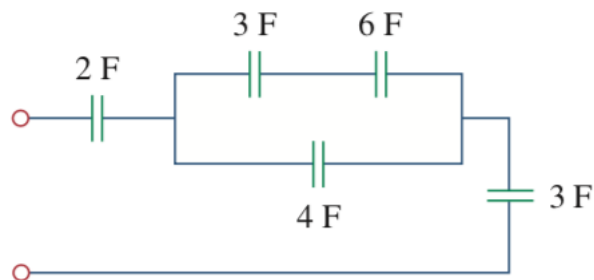
$$v_b = 30 \sin(377t + 60^\circ)$$

$$f = 60\text{Hz}$$



Question # 3:

Determine the equivalent capacitance for the following circuit:



Good Luck