## [BRAC UNIVERSITY]

[FALL'13]

[PHY-306]

[Basic Electronics]

# Assignment-II

 $Due\ on:\ 24^{th}\ October,\ 2013$ 

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SI:

Sec:

### Problem 1

(5 marks) Determine the  $R_{th}$  and  $V_{th}$  at the terminals a-b of the circuit shown in Fig-1.

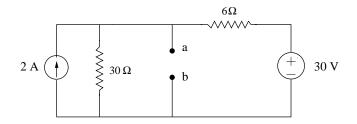


Figure 1: Question-1

### Problem 2

(5 marks) Find the Thevenin equivalent circuit looking into the terminals a-b of the circuit shown in Fig-2 and find the value of  $i_x$ .

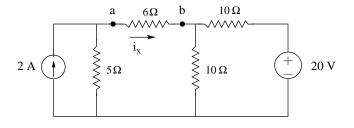


Figure 2: Question-2

### Problem 3

(5 marks) Obtain the Norton equivalent circuit of the circuit shown in Fig-3 as viewed from the terminal a-b.

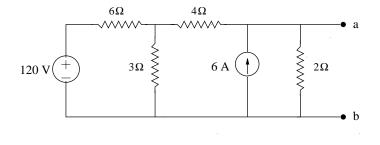


Figure 3: Question-3

### Problem 4

(5 marks) Obtain the current through the Galvanometer G, having a resistance of  $14\Omega$ , in the Wheatstone bridge shown in Fig-4.

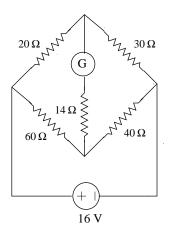


Figure 4: Question-4