(4 60)

TPCT'S TERNA ENGINEERING COLLEGE, NERUL.

INTERNAL ASSESSMENT TEST NO.1

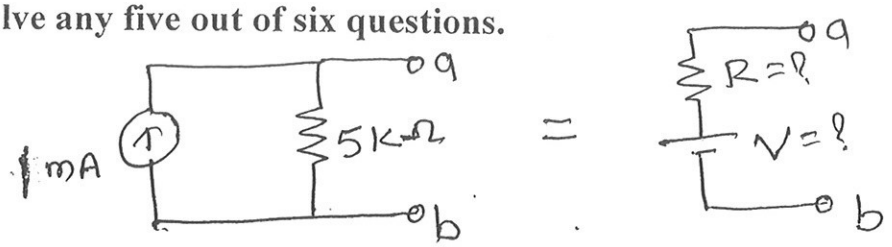
FE/SEM I /ALL DIV /BEE/ 13-09-2014/ MARKS 20

NB: Solve All Questions.

Figures to right shows full marks.

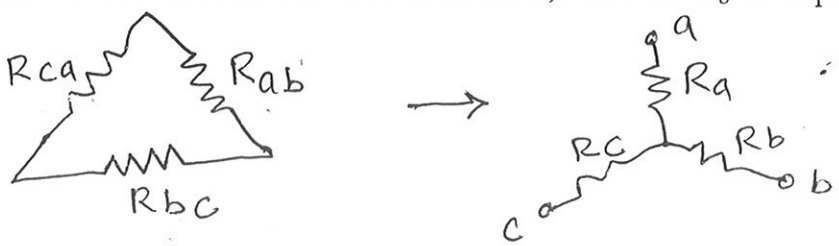
Q.1 Solve any five out of six questions. 10

a)



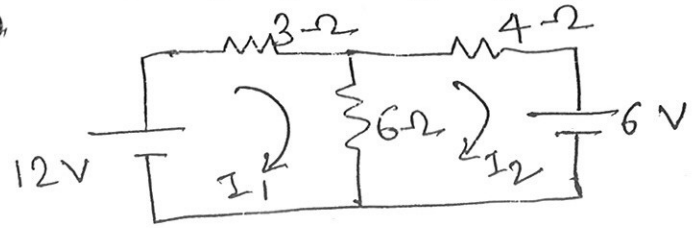
I) 5mV,5 Ω II) 5V,5 KΩ III)5V,5 Ω IV)5mV,5K Ω

b) If R_{ab}, R_{bc} and R_{ca} are connected in delta, then the R_b in equivalent star is



I) $\frac{R_{ab}R_{bc}}{R_{ab}+R_{bc}+R_{ca}}$ II) $\frac{R_{ca}R_{bc}}{R_{ab}+R_{bc}+R_{ca}}$ III) $\frac{R_{ab}R_{ca}}{R_{ab}R_{bc}R_{ca}}$ IV) $\frac{R_{ab}R_{bc}}{R_{ab}R_{bc}R_{ca}}$

c)

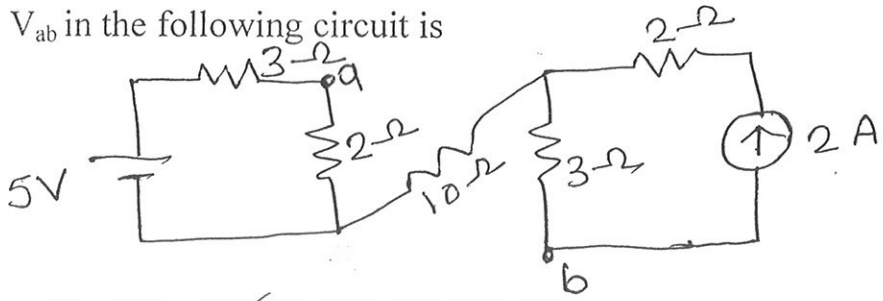


The KVL equations of circuit are

I) $-3I_1+2I_2=4$, $3I_1+5I_2=3$ III) $3I_1-2I_2=4$, $3I_1-5I_2=3$

II) $3I_1-2I_2=-4$, $-3I_1-5I_2=-3$ IV) $3I_1+2I_2=4$, $3I_1+5I_2=3$

d) V_{ab} in the following circuit is



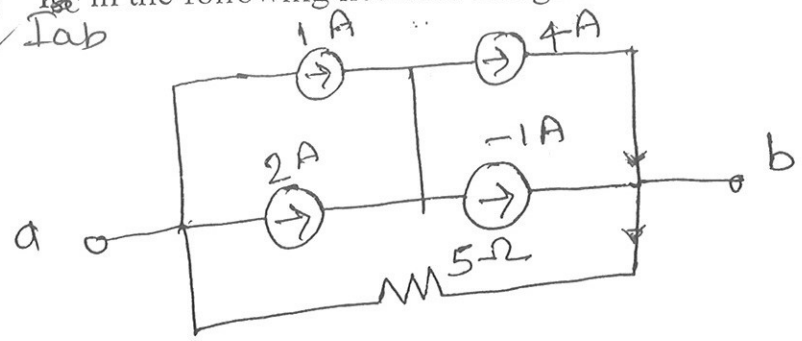
I) -8V II) 8V III) 4V IV) 6V

e) Superposition Theorem can be applied to

I) Linear, Unilateral III) NonLinear, Unilateral

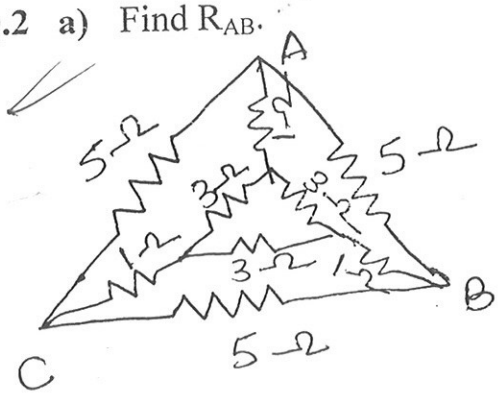
II) NonLinear, Bilateral IV)Linear, Bilateral

Q.1 f) ~~Isc~~ Iab in the following network using Norton's Theorem will be

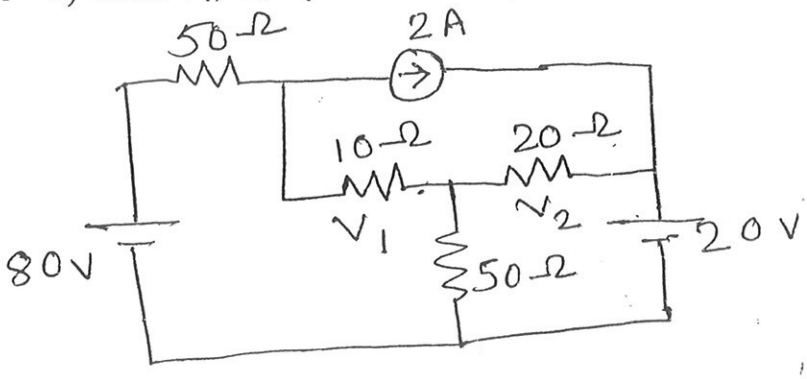


I) 3A II) 6A III) 7A IV) 0

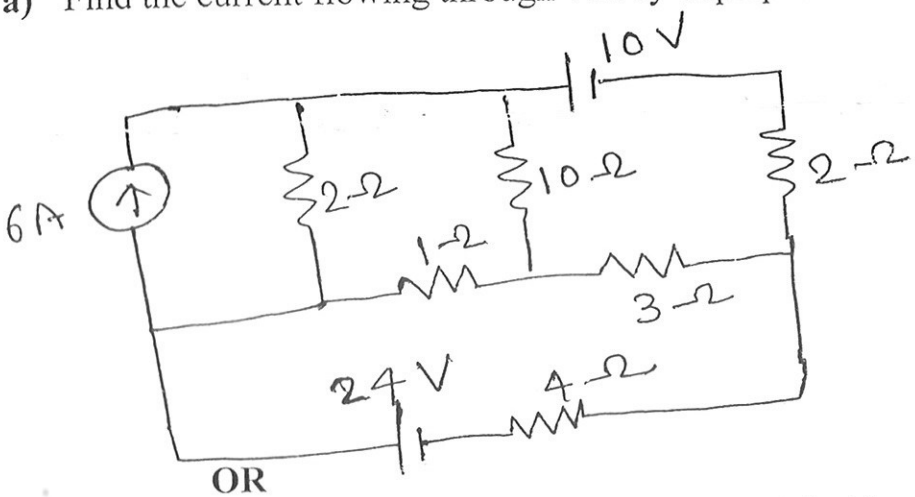
Q.2 a) Find R_{AB}.



OR **b)** Find V_1, V_2 By Nodal Analysis. **5**



Q.3 a) Find the current flowing through 4 Ω by Superposition Theorem. **5**



OR

b) Find R_L , if maximum power is transfered. Also find P_m. **5**