## SNS COLLEGE OF ENGINEERING



Kurumbapalayam (Po), Coimbatore – 641 107 AN AUTONOMOUS INSTITUTION



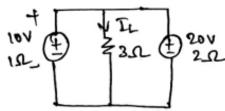
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## Superposition Theorem:

"In a linear circuit consisting of more than one independent source, the total werent in any past of the circuit equals the algebraic sum of the individual contribution of warents produced by each independent source separately".

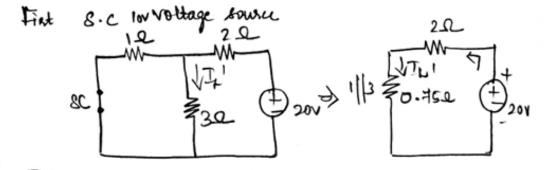
Problem:

Veing superforation theorem, find the current lbrough the 352 resistor in the circuit show



S.c ≥ Voltage Source

OC & Current source



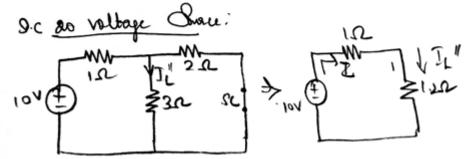
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$$I' = 7.3 \times \frac{1}{1+3}$$

$$\Rightarrow 1.825A = \frac{20}{0.75+2} = 7.3A$$
9.c ao voltage Sare:



$$I = \frac{V}{R} = \frac{10}{1+1.2} = 4.55 \text{ A}$$
 $I_1'' = 4.55 \times 2 = 1.82 \text{ A}$ 

By superferrition theorem,

 $I_2 = I_2' + I_2''$ 
 $= 1.82 = 3.6457$