

MCT

MANJARA CHARITABLE TRUST
RAJIV GANDHI INSTITUTE OF TECHNOLOGY, MUMBAI

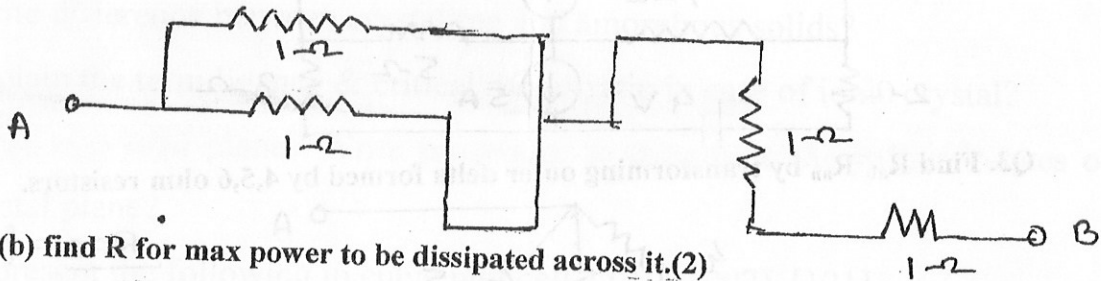
Mid Term Test 1

Subject: BEE (FE)

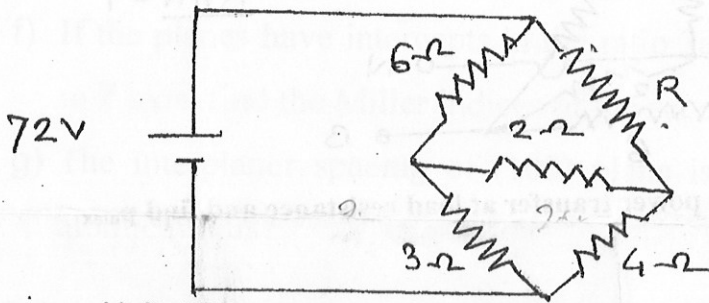
Max Marks 40
Duration 90Mins

NOTE: Question no. 1 is compulsory (10 Marks)

Q1.(a) find R_{ab} for following circuit.(2)

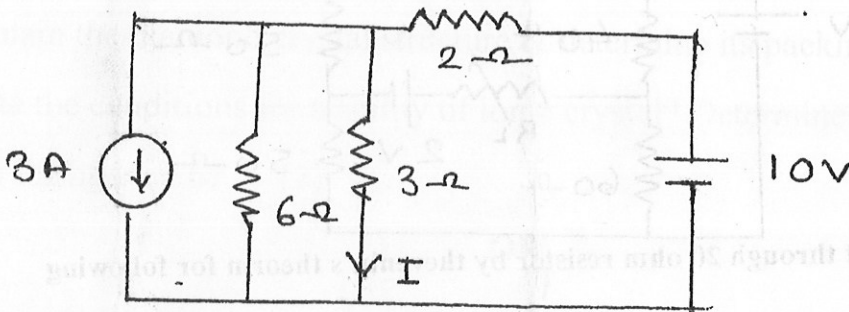


(b) find R for max power to be dissipated across it.(2)



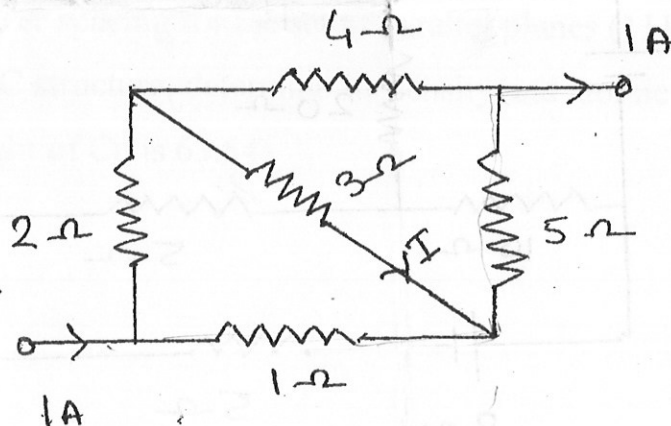
(c) find I by source transformation.(3)

$I = 9$



(d) Find I by kirchhoff's Law.(3)

$I = 9$

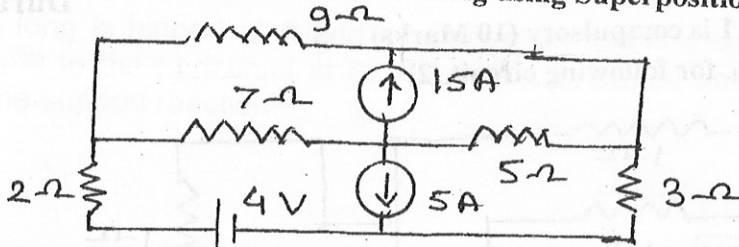


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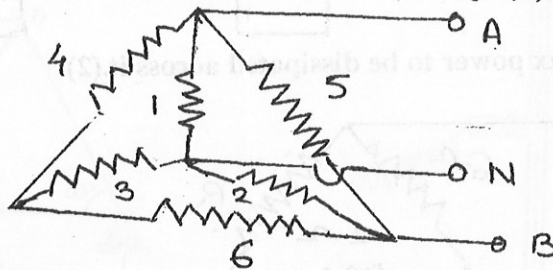
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Answer any 3 Questions each carries 10 marks

Q2. Find current through 3Ω resistor using Superposition Theorem. (10)

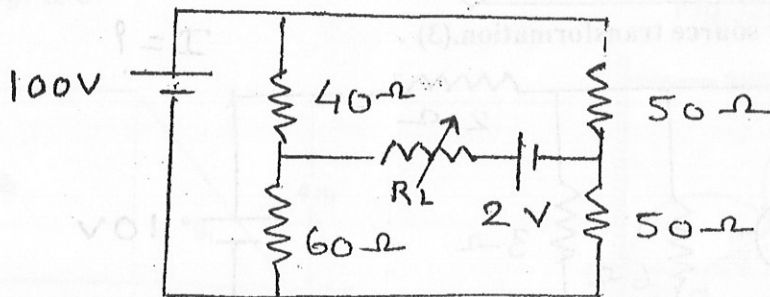


Q3. Find R_{ab} R_{an} by transforming outer delta formed by 4,5,6 ohm resistors.



$$\frac{R_{AB} = ?}{R_{AN} = ?}$$

Q4. Derive the condition for Max power transfer at load resistance and find p_{max} and R_l for following circuit.



Q5. Find current through 20Ω resistor by thevenin's theorem for following circuit.

