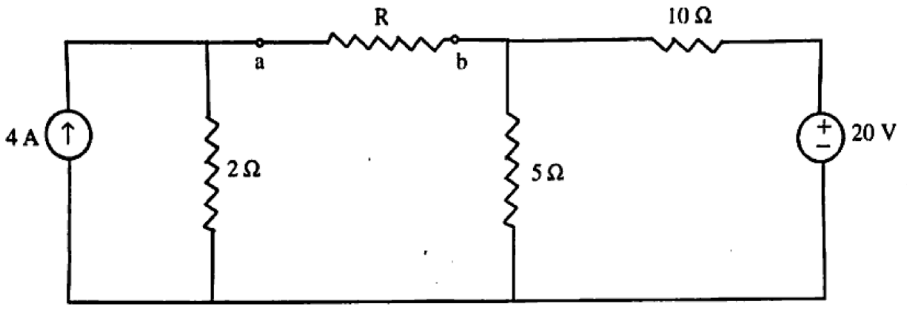
TECHNO INDIA NJR INSTITUTE OF TECHNOLOGY, UDAIPUR

Computer Science and Engineering
B.TECH I-YEAR (I-SEM)
SUBJECT 1FY3-08
BASIC ELECTRICAL ENGINEERING

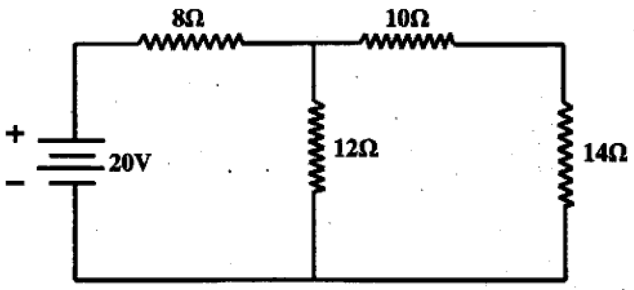
ASSIGNMENT-1

Answer all questions. Each question carries 5 marks

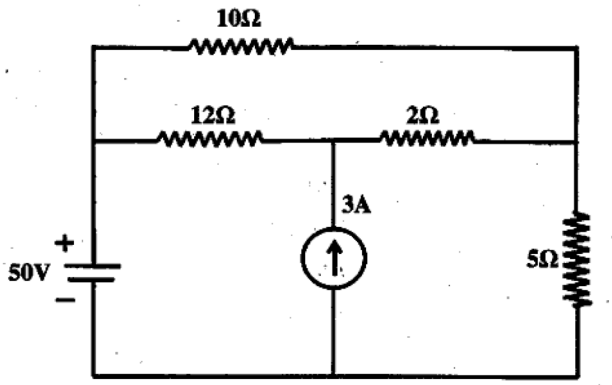
1. What should be the value of R such that Maximum power transfer can take place from the Rest of the Network to R. Obtain the amount of this power?



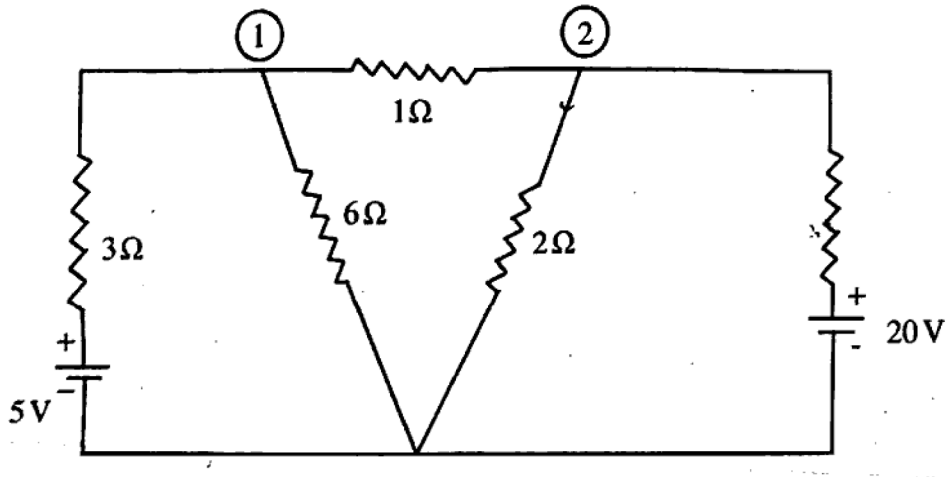
2. State and explain Norton's theorem. Illustrate the application of this theorem with reference to an appropriate electric circuit. Using Norton's theorem determine the current in 12-ohm resistor in the network shown in figure



3. State and explain Thevenin's theorem. Illustrate the application of this theorem, with reference to an appropriate electric circuit. Calculate current in 2-ohm resistor in the network shown in figure



4. Find the current through the 1 Ohm resistor node voltage method for the circuit shown below.



5. Write down star to delta and delta to star transformation. Also find the current in branch AB is the unbalanced bridge using noble analysis, as shown in Fig