

Department / School _____

Enrolment No. _____

BENNETT UNIVERSITY, GREATER NOIDA

Mid- Term Make-up Examination, Even SEMESTER 2022-23

COURSE CODE: CSET102

MAX. DURATION: 1 Hr

COURSE NAME: Introduction to Electrical and Electronics Engineering **MAX. MARKS: 20**

Note: Each question carries 5 marks. Attempt all questions.

Q.1 Find the value of resistance R_L in Fig. 1 for maximum power transfer and calculate the maximum power using Thevenin's theorem. Also obtain the values of V_{th} and R_{th} . (3+1+1 Marks)

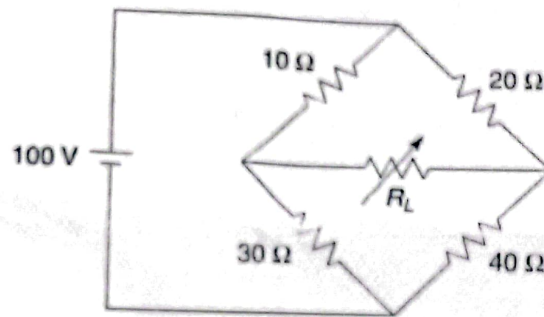


Fig. 1: Circuit for question 1

Q.2 For the circuit shown in Fig. 2, find the current through the 24V source.

5 Marks

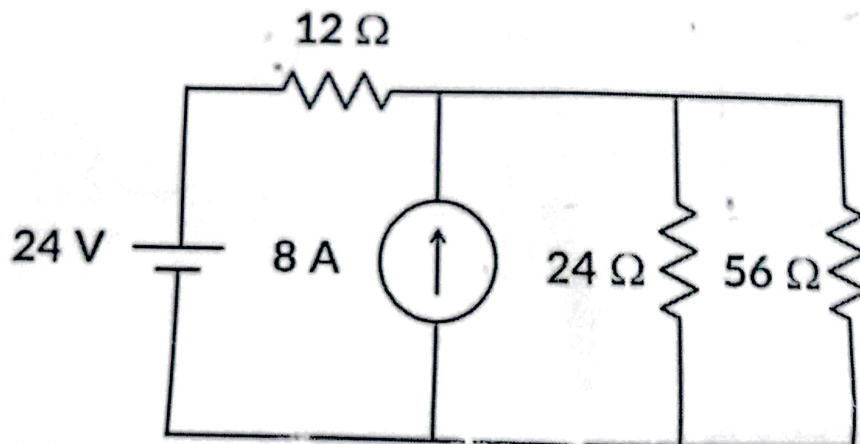


Fig. 2: Circuit for question 2

Q.3 Consider the circuit shown in Fig. 3. Calculate the resistance R_1 so that maximum power is delivered to the load resistor R_L . Calculate the power consumed by the resistor R_1 . Given $R_2=9\text{ k}\Omega$, $R_3=9\text{ k}\Omega$, $R_L=3\text{ k}\Omega$, $V_1=7\text{ V}$ and $I_1=17\text{ mA}$. **5 Marks**

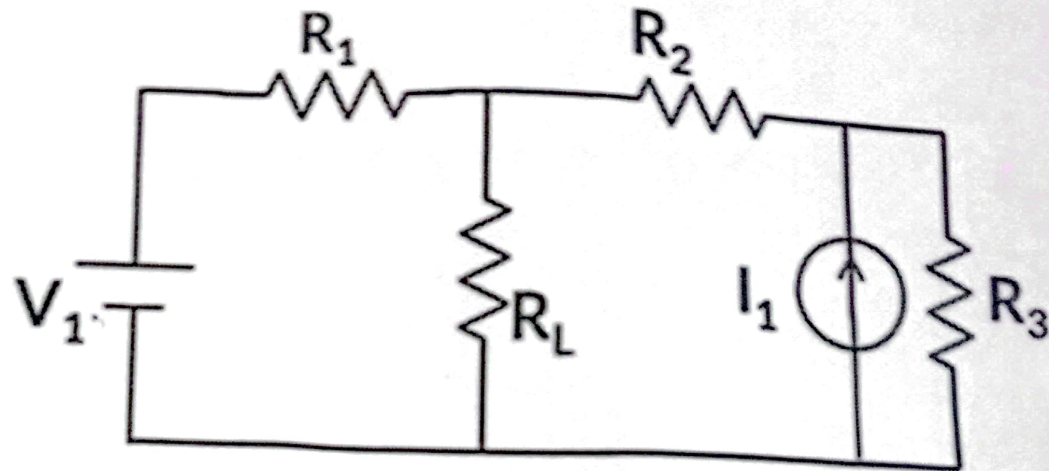


Fig. 3

Q.4 Find the current through resistor R_1 for the circuit shown in Fig. 4.

5 marks

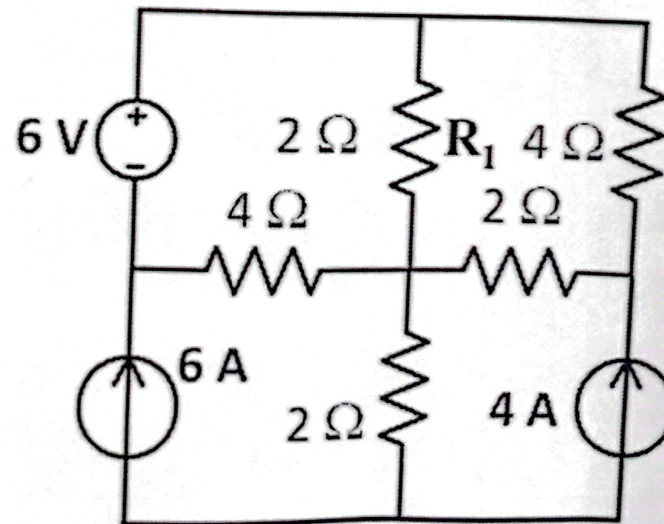


Fig. 4: Circuit for question 4

End of question paper