

University of Information Technology & Sciences (UITS)
Faculty of Science and Engineering
Department of Computer Science and Engineering
Program: B.Sc. in CSE
Mid Term Examination, Autumn 2025
Course Title: Fundamental of Electrical Engineering
Course Code: EEE 0713121/ EEE 151

Marks: 20

Time: 1(One) hour

(Answer all questions)

Q. No.	Questions	Marks
i. a)	Calculate v_o and i_o in the circuit of figure 1(a).	[05]

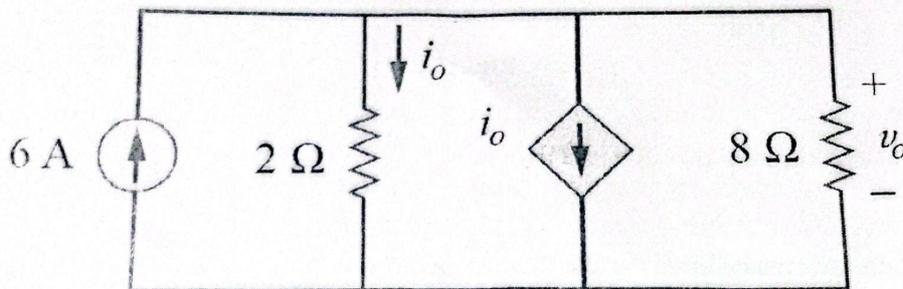


Figure 1(a)

b) Find i_1 , i_2 , i_3 and i_4 in the circuit of figure 1(b) using Current Divider rule. [05]

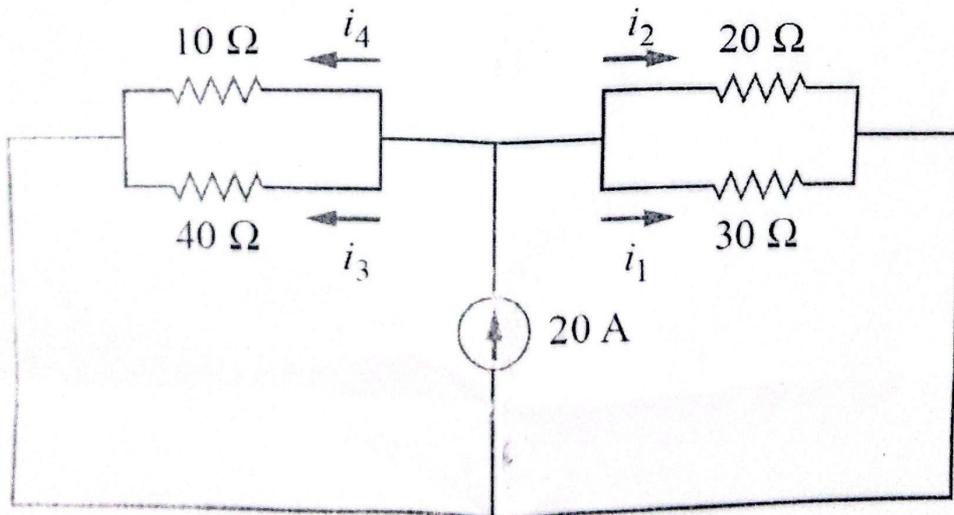


Figure 1(b)



2. a) Determine the equivalent resistance at the terminals a-b for the circuit in figure 2(a). [06]

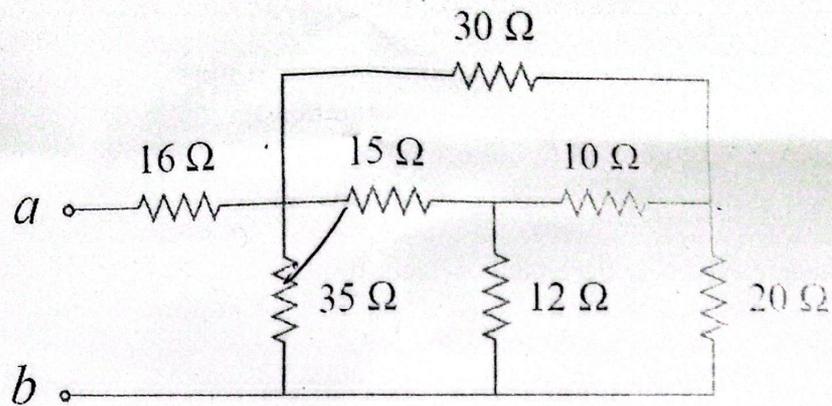


Figure 2(a)

- b) The current flowing through an element is [04]

$$i = \begin{cases} 2 \text{ A}, & 0 < t < 1 \\ 2t^2 \text{ A}, & t > 1 \end{cases}$$

Calculate the charge entering the element from $t = 0$ to $t = 2$ s.

