BRAC University
M.Sc/M.Engg in Electrical & Electronics Engineering
Semester: Year:

Name: _____   **ID:** _____

Seat No.:_____

Instructions	Marks Distribution		Marks Obtain
• Total duration for the exam is 1 hour • There are two sections in the question • Students have to pass each section separately • Answer each question within the space provided in this question booklet • No additional page will be provided	Section 1	30	
	Section 2	30	
	Total	60	

➢ Adoption of any unfair means in the examination hall will make the candidate disqualified for admission.

➢ Please do not turn over the page until you are asked to do so.

Good Luck

Section 1

PART A (Total number of questions in this part is **TWO (2)**; answer any **ONE (1)** question)

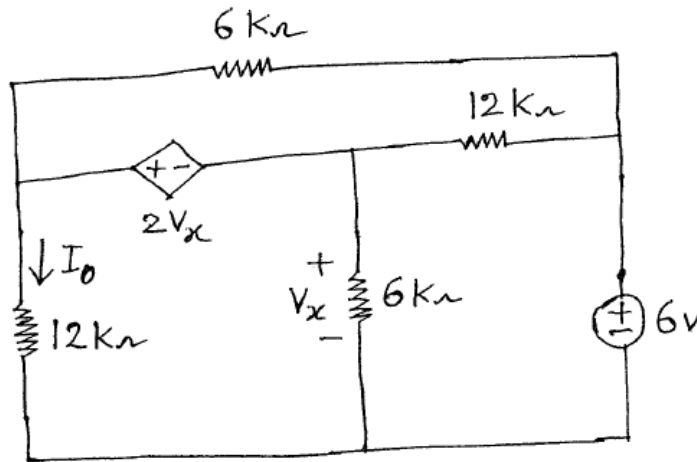1. Use Node analysis to find the current I_o as shown in Fig. 1.   [15]
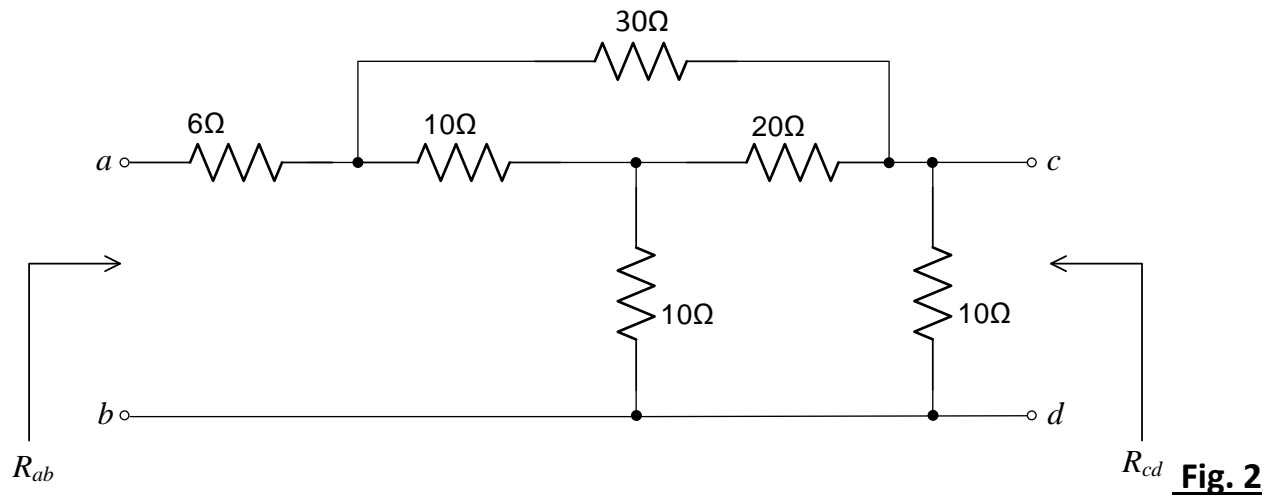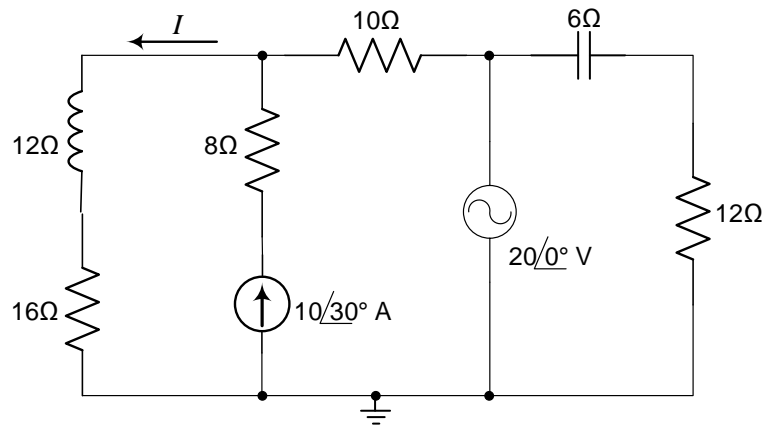

Fig. 1

2. Find out the equivalent resistances R_{ab} and R_{cd} as indicted in the figure shown below using Δ-Y or Y-Δ conversion. [15]

Fig. 2

PART B (Total number of questions in this part is **TWO (2)**; answer any **ONE (1)** question)

3. For the network shown in Fig. 1, find the current I using **Superposition Theorem**.   [15]

Fig. 3

4. Consider the following network shown in Fig. 4. [15]

    a) Find the Thevenin's equivalent circuit between the terminals a and b.

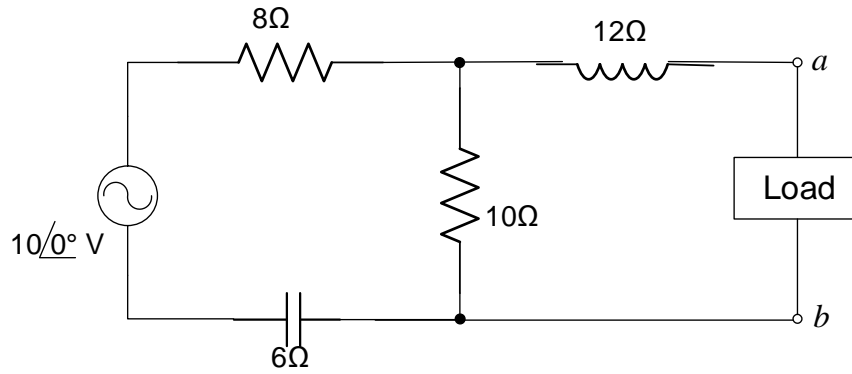   b) Find the load impedance for which maximum power will be transferred to the load.

Fig. 4

<u>Section 2</u>

Write an English composition of 200 to 250 words on the topic given below:

**"Being an extrovert is a prerequisite in order to have a successful career."
Do you agree or disagree with the given statement? Explain your views with relevant examples.**