American International University- Bangladesh (AIUB)
Faculty of Engineering

Course Name:	Introduction to Electrical Circuits	**Course Code:**	COE 2101
Semester:	Fall 2022-23	**Term:**	Final
Total Marks:	10	**Submission Date:**	7-12-2022
Faculty Name:	Md. Ashiquzzaman	**Assignment:**	01

Course Outcome Mapping with Questions

Item	COs	POIs	K	P	A	Marks	Obtained Marks
Q1	**CO3**	**P.a.2.C3**	**K2**			**3**	
Q2	**CO3**	**P.a.2.C3**	**K2**			**3**	
Q3	**CO3**	**P.a.2.C3**	**K2**			**4**	
					Total:	**10**	

Student Information:

Student Name:	**Student ID:**
Section: H	**Department:**

Marking Rubrics (to be filled by Faculty):

Problem #	Excellent [4] [3]	Proficient [3] [2.5]	Good [2]	Acceptable [1]	Unacceptable [0.5]	No Response [0]	Secured Marks
	Detailed unique response explaining the concept properly and answer is correct with all works clearly shown.	Response with no apparent errors and the answer is correct, but explanation is not adequate/unique.	Response shows understanding of the problem, but the final answer may not be correct	Partial problem is solved; response indicates part of the problem was not understood clearly.	Unable to clarify the understanding of the problem and method of the problem solving was not correct	No Response/(Copied/identical submissions will be graded as 0 for all parties concerned)	
1							
2							
3							
Comments						**Total marks (10)**	

1. Applying the superposition theorem, calculate the current $\mathbf{I}_L$ for the network in Fig. 1

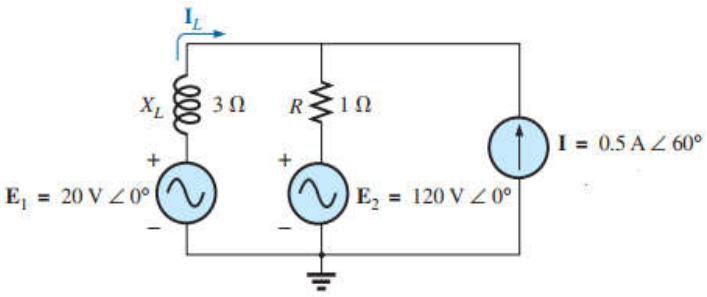

Fig. 1

2. Modify the following network in Fig. 2 as the Thévenin equivalent circuit for the network external to the elements between points a and b.

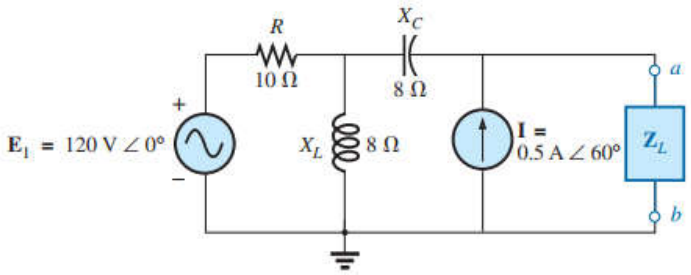

Fig. 2

3. For the network in Fig. 3, calculate the value of load impedance $\mathbf{Z}_L$ for maximum power to the load and calculate the maximum power to the load.

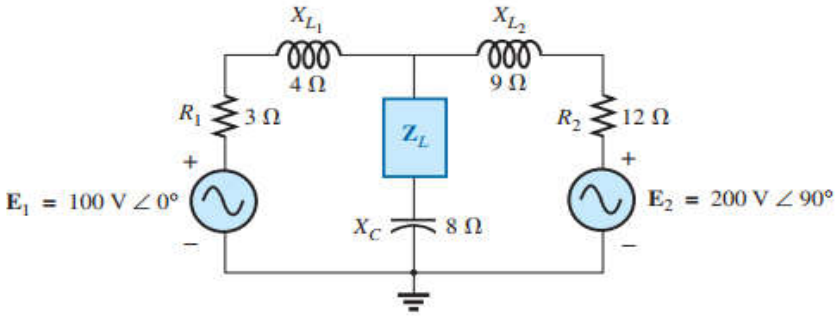

Fig. 3