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School of Engineering First Sessional Examination, Even Semester (AS: 2021-22) B. Tech: CSE Year: 1 Semester: II	
Course Title: Basic Electrical Engineering Course Code: BEE3201	Max Marks: 30 Time: 1 hr

Instructions if any: Read the question Carefully.

	SECTION 'A' Q.N.1. Attempt all parts of the following:	Course Objective	Marks
a)	Define 'linear' & 'nonlinear' circuit elements.	CO1	1
b)	What is an ideal current source?	CO1	1
c)	State Millman's Theorem.	CO1	1
d)	What is Quality Factor?	CO2	1
e)	Define Peak Factor and Form Factor.	CO2	1
	SECTION 'B' **Q.N.2. Attempt any two parts of the following:**	**Course Objective**	**Marks**
a)	Explain Star to Delta transformation to solve network problems.	CO1	7.5
b)	State and explain Maximum Power transfer theorem to solve network problems, and also write two applications.	CO1	7.5
c)	Prove that the maximum value of current is equal to root two times of rms value.	CO2	7.5
d)	Define: Real, Reactive & Apparent power in AC circuit.	CO2	7.5

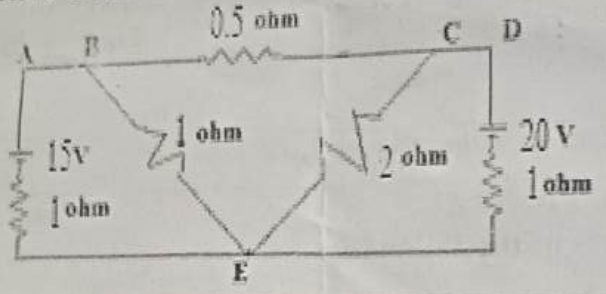
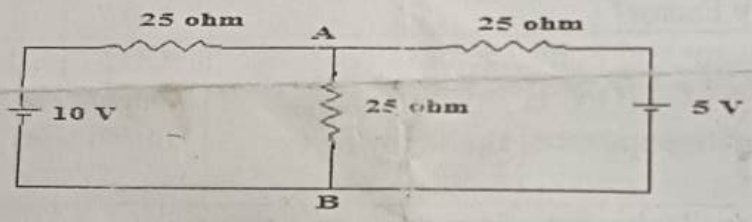
SECTION 'C'		Course Objective	Marks
Q.N.3. Attempt any one part of the following:			
a)	By using nodal analysis, find the current in all resistive branches. 	CO1	10
b)	Calculate the current in branch AB in given circuit, using Thevenin theorem. 	CO1	10
c)	Prove that the average power consumed in pure inductive circuit is zero.	CO2	10

Table 1: Mapping between COs and questions

(Number of COs may vary from course to course)

COs	Questions Numbers	Total Marks
CO1	1 (a, b, c) 2(a, b) 3(a, b)	38
CO2	1(d, e) 2(c, d) 3(c)	27