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**PRESIDENCY UNIVERSITY
BENGALURU**

**SCHOOL OF ENGINEERING
MID TERM EXAMINATION - APR 2023**

Semester : Semester II - 2022

Course Code : EEE1001

Course Name : Sem II - EEE1001 - Fundamentals of Electrical and Electronics Engineering

Program : CIV

Date : 13-APR-2023

Time : 9.30AM -
11.00AM

Max Marks : 50

Weightage : 25%

Instructions:

- (i) Read all questions carefully and answer accordingly.*
 - (ii) Question paper consists of 3 parts.*
 - (iii) Scientific and non-programmable calculator are permitted.*
 - (iv) Do not write any information on the question paper other than Roll Number.*
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PART A

ANSWER ALL THE QUESTIONS

(5 X 2 = 10M)

1. In a circuit containing R, L and C, power loss can take place in
 - a) C only (CO1) [Knowledge]
 - b) L only
 - c) R only
 - d) All above
2. The standard supply frequency in India is
 - a) 25 Hz (CO1) [Knowledge]
 - b) 60 Hz
 - c) 50 Hz
 - d) 100 Hz
3. In a pure inductive circuit
 - a) The current is in phase with the voltage (CO1) [Knowledge]
 - b) The current lags behind the voltage by 90°
 - c) The current leads the voltage by 90°
 - d) The current can lead or lag by 90°

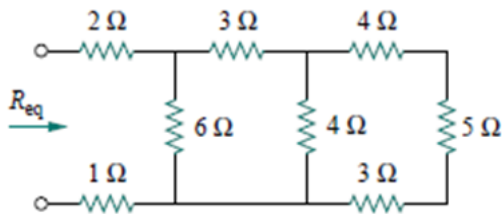
4. The ratio of effective value to average value is called the factor. (CO1) [Knowledge]
- form
 - peak
 - average
 - Q-factor
5. The power factor of a D.C. circuit is always (CO1) [Knowledge]
- Less than unity
 - Greater than unity
 - Unity
 - Zero

PART B

ANSWER ALL THE QUESTIONS

(2 X 10 = 20M)

6.



Determine the R_{eq} - the equivalent resistance for the given circuit by appropriate series parallel reduction methods

(CO1) [Comprehension]

7. Explain the term Phase difference and represent using appropriate wave forms. Also draw the phasor diagram of RL circuit

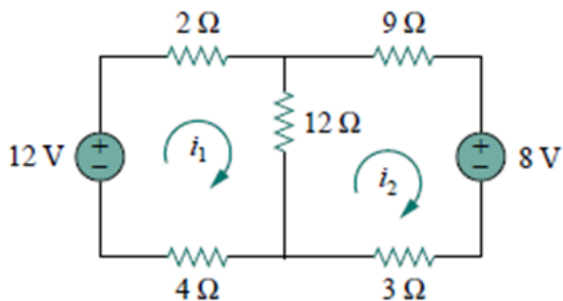
(CO1) [Comprehension]

PART C

ANSWER THE FOLLOWING QUESTION

(1 X 20 = 20M)

8.



For the network shown in Fig, determine any 2 unknown values of different units

(CO1) [Application]