

Roll No



**PRESIDENCY UNIVERSITY
BENGALURU**

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

Semester : Semester II - 2022

Course Code : EEE1001

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

Program : CIV

Date : 19-MAY-2023

Time : 10.30AM -
12.00PM

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. The power factor of a D.C. circuit is always

- a) Less than unity
- b) Greater than unity
- c) Unity
- d) Zero

(CO1) [Knowledge]

2. In a DC Circuit, Inductive reactance would be _____

- a) Equal As in AC Circuits
- b) High
- c) 50
- d) Zero

(CO1) [Knowledge]

3. What is the power factor in a pure inductive or capacitive circuit?
- a) -1 (CO1) [Knowledge]
 - b) 0
 - c) 1
 - d) Infinity
4. The RMS value of a sine wave is 100 A. Its peak value is
- a) 70.7 A (CO1) [Knowledge]
 - b) 141 A
 - c) 150 A
 - d) 282.8 A
5. The two a.c. quantities are found to be in phase, the phase angle difference between these quantities is
- a) 90 degrees (CO1) [Knowledge]
 - b) 180 degrees
 - c) less than 90 degrees
 - d) zero degrees

PART B

ANSWER ALL THE QUESTIONS

(2 X 10 = 20M)

6. The average power dissipated in a purely capacitor circuit is zero. Comment on the statement and justify
- (CO1) [Comprehension]
7. You are given 2 wires each of resistance R . What is the ratio of maximum to minimum resistance that can be obtained from these wires
- (CO1) [Comprehension]

PART C

ANSWER THE FOLLOWING QUESTION

(1 X 20 = 20M)

8. A coil connected to a 220 V, 50 Hz sinusoidal supply takes a current of 6 A at a phase angle of 30° . Compute all possible data from the given details.
- (CO1) [Application]