

# Electrical Engineering Quiz 003 (Mixed)

## Quiz Instructions

- Before attempting, carefully read the question text.
- Then choose the correct answer.
- Click on "**Submit**" to confirm your answer.
- Use the **Question List** in the upper left corner to jump to a certain question.

1. A circuit having power factor of 0.8 consumes 40 W. What will be the value of reactive power (in VAR) of the circuit?

- A) 20
- B) 40
- C) 30
- D) 10

2. On which of the following parameters the eddy current loss occurring in a material does not depend?

- A) Magnetic flux Density
- B) Frequency of variation of flux
- C) Susceptibility
- D) Volume of the material

3. Determine the magnetic field strength (in A/m) of a material when the intensity of magnetization of the material is 0.084 Amp/m and the magnetic susceptibility of the material is 0.0012.

- A) 70
- B) 700
- C) 0.7
- D) 0.07

4. A PMMC type voltmeter, having a full scale reading of 250 V and an internal resistance of 400 kilo ohms, is connect with a series resistance of 100 kilo-ohms. Calculate the sensitivity of the voltmeter (in Ohms/Volts).

- A) 2400
- B) 2000
- C) 20,000
- D) 24,000

5. Determine the phase angle (in degrees) of a balanced 3-phase star connected system, if the first and the second wattmeter show readings of 200 W and 1200 W respectively.

- A) 51
- B) 65

- C) 78
- D) 84

**6.** Which one of the following statement is NOT true about PMMC type instruments?

- A) PMMC type instruments have uniformly divided scale.
- B) These instruments are suitable for both AC and DC currents
- C) Stray magnetic errors are small in these types of instruments.
- D) The cost of PMMC instruments is high.

**7.** Which one of the following instrument can measure voltage, resistance, and current?

- A) Ammeter
- B) Voltmeter
- C) Multimeter
- D) Wattmeter

**8.** Determine the flux (in Wb) through a coil when the reluctance of the coil is 4 Amp-turns/Wb and the produced mmf is 48 Amp-turns.

- A) 10
- B) 12
- C) 14
- D) 16

**9.** Determine the percentage voltage error of a potential transformer with the system voltage of 11000 V and having a turn's ratio of 104 if the measured secondary voltage is 98 V.

- A) 7.35
- B) 5.75
- C) 6.25
- D) 8.84

**10.** A house has 5 fans of 70 W each that operate for 16 hours a day and one washing machine of 2000 W that operates for 1 hour per day in the month of June. What is the energy consumption (in kWh) of the house in the month of June?

- A) 228
- B) 235.6
- C) 350
- D) 486.6

# Answer Keys

Question	Answer
1	C
2	C
3	A
4	B
5	A

Question	Answer
6	B
7	C
8	B
9	A
10	A