

TALEEMI DUNYA

Test Syllabus: Unit # 5

St. Name		Test	PHYSICS	T. Marks	30	Time	60 Min
F.Name		Class	12 th	T. Code	U#5	T. Date	

NOTE: Four possible answers A, B, C and D to each question are given. The choice which you think is correct, fill that circle in front of that Question with Marker or Pen ink. Cutting or filling two or more circles will result in zero mark in that question. **6.**

1	In case of capacitor the unit of reactance is:						
(a)	Ohm	(b)	Mho	(c)	Farad	(d)	Henry
2	The combined effect of resistance and reactance is known as:						
(a)	Inductance	(b)	Conductance	(c)	Resistance	(d)	Impedance
3	In R-L series circuit phase angle is given by:						
(a)	$\theta = \tan^{-1} \frac{1}{\omega LR}$	(b)	$\theta = \tan^{-1} \omega LR$	(c)	$\theta = \tan^{-1} \frac{R}{\omega L}$	(d)	$\theta = \tan^{-1} \frac{\omega L}{R}$
4	The expression $P = VI$ holds only when current and voltage are:						
(a)	In phase	(b)	Out of phase	(c)	At right angle to each other	(d)	At angle of 120°
5	At resonance frequency, the impedance of RLC series circuit is:						
(a)	Maximum	(b)	Minimum	(c)	Zero	(d)	Infinite
6	In RLC series circuit, the condition for resonance is:						
(a)	$X_L < X_C$	(b)	$X_L > X_C$	(c)	$Z > X_C$	(d)	$X_L = X_C$

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Q.2 Write short answers of the following questions.

(8x2=16)

1. Define peak value and peak to peak value of A.C voltage?
2. What is the main reason for the world wide use of A.C?
3. What do you mean by phase lag and phase lead?
4. Which quantity, voltage or current leads in a capacitor and by how much angle?
5. A 100 μ F capacitor is connected to an alternating voltage of 24 V and frequency 50 Hz. Calculate the current in the circuit.
6. What is meant by inductive and capacitive reactance?
7. How power is calculated in an A.C circuit? Write its formula.
8. Write down two advantages of the phase A.C supply.

Q.3 Write long answers of the following questions.

(4+4=8)

- (a) What is R-C series circuit? Find the impedance of R-C series circuit.
- (b) An A.C voltmeter reads 250 V. What is its peak and instantaneous values if the frequency of Alternating voltage is 50 Hz?