Physics - ICS Part 2 Physics Chapter 16 Short Questions Preparation

Q1. Define phase of alternating voltage.

Ans 1: The angleθ=wt which specifies the instantaneous value of the alternating voltage or current is known as its phase.

Q2. What is choke?

Ans 1: It is a coil of thick copper wire wound closely over soft iron laminated cores,It is used in AC circuits to limited current with extremely small wastage of energy as compare to a resistance .

Q3. Define Instantaneous Value and Peak value of current.

Ans 1: The value of current or voltage at any any instant is called instantaneous value and the maximum value of current or voltage is called peak value.

Q4. Define A.C current.

Ans 1: A.C is that which is produced by a voltage source whose polarity keeps in reserving with time.

Q5. What is responsible factor for production of magnetic field in an atom?

Ans 1: As Ampere suggested,a magnetic field is produced whenever an electrical charge in motion.The spinning and orbiting of the electrons of an atom produce a magnetic field as does electrical current flowing through a wire.

Q6. How many times per second will an incandescent lamp reach maximum brilliance when connected to a 50 Hz source?Explain.

Ans 1: An incandescent lamp will reach maximum brilliance two time in cycle.One time for positive half cycle and one negative half cycle.

Q7. Differentiate between peak value and peak to peak value.

Ans 1: Peak value: It is the highest value reached by the voltage or current in one cycle,It is donated by the V_0.

Ans 2: Peak to peak value: It is the sum of the positive and negative peak value usually written as p-p value,

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Q8. Write advantage and disadvantage of FM and AM.

Ans 1: Advantage:

1. FM transmission frequencies are much higher and range between 88 MHz to 108 MHz.AM transmission frequencies range from 540 KHz to 1600 KHz.
2. FM radio waves are affected less by electrical interference than AM radio waves.

Disadvantage:

1. FM have a short range than AM.
2. FM are less able to travel around obstacles such as hills and large buildings.

Ans 2:

Q9. Write two properties of RLC series circuit.

Ans 1:

1. The impedance of the circuit at resonance is minimum and equal to R.
2. The power factor of RLC series circuit is 1.

Q10. What is meant by inductive and capacitive reactance?

Ans 1: The measurement of opposition offered the inductor to the flow of alternating current is called inductive reactance. And the measurement of opposition offered by the capacitor to the flow of alternating current is called capacitive reactance.
