

Physics - ICS Part 2 Physics Chapter 16 Short Questions Preparation

Q1. Write down two advantage of use of three phase AC supply.

Ans 1:

1. The main advantage of having three phase supply is that the total load of the house or a factory is divided in the three parts, so that none of the line is overloaded.
2. Three phase supply also provide 400 V Which can be used to operate some special appliances which require 400 V for their operation.

Q2. 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.

Q3. What is choke? Why it is used in AC circuit?

Ans 1: A choke is a coil made of thick insulated copper wire wound closely in a large numbers of turns over a soft iron laminated core. It is used to control alternating current through a circuit without much loss of energy.

Q4. Define A.C current.

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

Q5. Define Instantaneous Value and Peak value of current.

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

Q6. What is the main reason for the world wide use of A.C?

Ans 1: Because it can transmit to long distance easily and at a very low cost. Its power losses are very small and it may step up or step down by means of a transformer.

Q7. Define alternating current.

Ans 1: Alternating current is that which is produced by a voltage source whose polarity keeps on reversing with time.
$$I = I_0 \sin 2\pi ft$$

Q8. 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.

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 modulation?Name its types,

Ans 1: The process of combining the low frequency signal with a high frequency is called modulation.It is of two types.

1. Amplitude modulation
2. Frequency modulation.