

1. Which of the given correctly describes the magnetic field near a long straight wire?

- A. The field consists of straight lines perpendicular to the wire
- B. The field consists of straight lines parallel to the wire
- C. The field consists of radial lines originating from the wire
- D. The field consists of concentric circles centered on the wire

2. the most suitable material for making the core of an electromagnet is:

- A. Soft iron
- B. Brass
- C. Aluminum
- D. Steel

3. Overloading happens because:

- A. of connecting many appliances to a single socket
- B. Short circuits
- C. Of hike in the supply voltage
- D. Any of these

4. The back face of a circular loop of wire is found to be south magnetic pole. The direction of current in this face of the circular loop of wire will be:

- A. Towards south
- B. Clockwise
- C. Anticlockwise
- D. Towards north

5. The magnetic field inside a long straight solenoid carrying current:

- A. is zero
- B. Decreases as we move towards its end
- C. Increases as we move towards its end
- D. Is the same at all points?

6. The essential difference between an AC generator and a DC generator is that:

- A. AC generator has an electromagnet while a DC generator has permanent magnet
- B. DC generator will generate a higher voltage
- C. AC generator will generate a higher voltage
- D. AC generator has slip rings while the DC generator has a commutator

7. An electric motor is a device which transforms

- (a) Mechanical energy into electrical energy
- (b) Electrical energy into mechanical energy
- (c) Kinetic energy into potential energy
- (d) Electrical energy into Potential energy

8. The strength of magnetic field around a current carrying conductor is

- (a) inversely proportional to the current but directly proportional to the square of the distance from wire.
- (b) Directly proportional to the current and inversely proportional to the distance from wire.
- (c) Directly proportional to the distance and inversely proportional to the current

(d) directly proportional to the current but inversely proportional the square of the distance from wire.

9. The nature of magnetic field line passing through the centre of current carrying circular loop is

- (a) circular
- (b) ellipse
- (c) parabolic
- (d) straight line

10. The factors on which one magnetic field strength produced by current carrying solenoids depends are

- (a) Magnitude of current
- (b) Number of turns
- (c) Nature of core material
- (d) All of the above

11. Direction of rotation of a coil in electric motor is determined by

- (a) Fleming's right hand rule
- (b) Fleming's left hand rule
- (c) faraday law of electromagnetic inductors
- (d) None of above

12. The instrument that use to defect electric current in the circuit is known as

- (a) electric motor
- (b) A.C generator
- (c) galvanometer
- (d) none of the above

13. We can induce the current in a coil by

- (a) moving the coil in a magnetic field
- (b) by changing the magnetic field around it
- (c) by changing the orientation of the coil in the magnetic field
- (d) All of above

14. A.C generator works on the principle of

- (a) force experience by a conductor in magnetic field
- (b) electromagnetic induction
- (c) electrostatic
- (d) force experience by a charge particle in electric field.

15. The main advantage of A.C power transmission over D.C power transmission over' long distance is

- (a) AC transmits without much loss of energy
- (b) less insulation problem
- (c) less problem of instability
- (d) easy transformation.

16. Commercial electric motors do not use

- (a) an electromagnet to rotate the armature
- (b) effectively large number of turns of conducting wire in the current carrying coil
- (c) a permanent magnet to rotate the armature
- (d) a soft iron core on which the coil is wound

17. the most important safety method used for protecting home appliances from short circuiting or overloading is

- (a) earthing
- (b) use of fuse
- (c) use of stabilizers
- (d) use of electric meter

18. The magnetic field lines always begin from

- (a) N-pole and end on S-pole.
- (b) S-pole and end on N-pole.
- (c) Start from the middle and end at N-pole.
- (d) Start from the middle and end at S-pole.

19. The direction of induced current is given by

- (a) Fleming's right hand rule.
- (b) Fleming's left hand rule.
- (c) Right hand thumb rule.
- (d) Left hand thumb rule.

20. The insulation color of earth wire is

- (a) blue
- (b) red
- (c) green
- (d) white.