



PHYSICS

BOOKS - PSEB

Magnetic effects of electric current

Exercise

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

A. the field consists of straight lines perpendicular to the wire

B. the field consists of straight line parallel to the wire

C. the field consists of radial line originating to the wire.

D. the field consists of concentric circles centered on the wire.

Answer:



Watch Video Solution

2. The phenomenon of electromagnetic is:

A. the process of charging a body

B. the process of generating magnetic field
due to current passing through a coil.

C. producing induced current in a coil due
to relative motion between a magnet
and the coil.

D. the process of rotating a coil of an electric motor.

Answer:



Watch Video Solution

3. The device used for producing electric current is called:

A. generator

B. galvanometer

C. ammeter

D. motor

Answer:



Watch Video Solution

4. 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 DC generator has a commutator.

Answer:



Watch Video Solution

5. At the time of short circuit, the current in the circuit.

A. reduces substantially

B. does not change

C. increases heavily

D. very continuously

Answer:



Watch Video Solution

6. State whether the following statements are true or false. An electric motor converts mechanical energy into electric energy



[Watch Video Solution](#)

7. State whether the following statements are true or false: An electric generator works on the principle of electromagnetic induction



[Watch Video Solution](#)

8. State whether the following statements are true or false: The field at the centre of a long circular coil carrying current will be parallel straight lines.



Watch Video Solution

9. State whether the following statements are true or false. A wire with a green insulations usually the live wire.



Watch Video Solution

10. List two methods of producing magnetic fields.



Watch Video Solution

11. How does a solenoid behave like a magnet? Can you determine north and south poles of current carrying solenoid with the help of bar magnet? Explain



Watch Video Solution

12. When is the force experienced by a current carrying conductor placed in a magnetic field, the largest?



Watch Video Solution

13. Imagine that you are sitting in a chamber with your back to one wall an electron beam moving horizontally with back towards the front wall ,is deflected by a strong magnetic

field to your right side. What is the direction of the magnetic field?



[Watch Video Solution](#)

14. Name some devices in which electric motors are used.



[Watch Video Solution](#)

15. A coil of insulated copper wire is connected to a galvanometer, what will happen if a bar

magnet is pushed into the coil



[Watch Video Solution](#)

16. A coil of insulated copper wire is connected to a galvanometer, what will happen if a bar magnet is Withdrawn from inside the coil.



[Watch Video Solution](#)

17. A coil of insulated copper wire is connected to a galvanometer what will happen if a bar

magnet is held stationary in the coil?



[Watch Video Solution](#)

18. Two circular coils A and B placed closed to each other. If the current in the coil A is changed, will some current be induced in coil B? Give reason



[Watch Video Solution](#)

19. state the rule to determine the direction of a magnetic field produced around a straight conductor carrying current,



[Watch Video Solution](#)

20. state the rule to determine the direction of a force experienced by a current-carrying straight conductor placed in a magnetic field which is perpendicular to it, and



[Watch Video Solution](#)

21. state the rule to determine the direction of a current induced in a coil due to its rotation in a magnetic field.



Watch Video Solution

22. When does an electric short circuit occur?



Watch Video Solution

23. What is the function of earth wire? Why is it necessary to earth metallic appliances?



Watch Video Solution