



SHIKSHA CLASSES

Subject : Science-I

QUESTION PAPER

Total Marks : 20

Class : X

4. Effects of electric current

Time : 45 Min.

Q. 1 A) Choose the correct alternative : (1+1=2)

- 1) The phenomenon of electromagnetic induction is :
 - a) The process of changing a body.
 - b) the process of generating magnetic field due to a 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.
- 2) The essential difference between an AC generator & 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 split rings while DC generator has a commutator.

Q. 1 B) Solve the following questions (Any One). (01)

- 1) Find the odd one out
Fuse wire, bad conductor, rubber gloves, generator.
- 2) Why does two magnetic field of lines never intersect?
- 3) Match the following

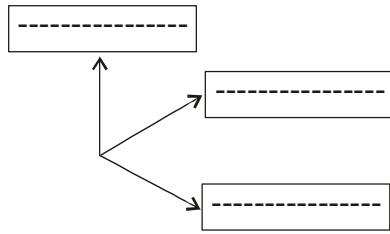
'A'	'B'
i) Electric current	i) ohm
ii) Electric power	ii) Ampere
	iii) watt

Q. 2 : A) Give scientific reason (Any One) (02)

- 1) For electric power transmission, copper or aluminium wire is used.
- 2) In the electric equipment producing heat e.g. iron, electric heater, boiler, toaster etc an alloy such as Nichrome is used not pure metal.

Q. 2 : B) Solve the following questions (Any Two) (2 +2=4)

- 1) State right hand thumb rule.
- 2) Which appliance will consume more electrical energy, 500 W TV set in 30mins or 600 W heater in 20 mins?
- 3) State Fleming's left hand rule and label the following diagram.

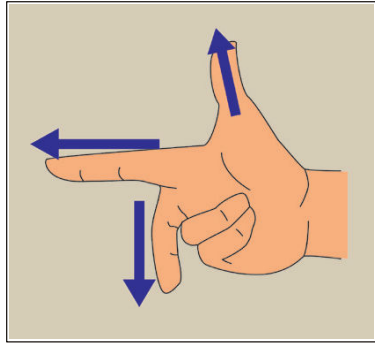


4) State Joule's law of heating.

Q. 3 : Solve the following questions (Any Two).

(3+3=6)

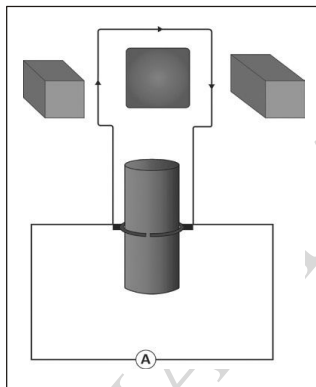
1) Name the following diagram and explain



2) How does the short circuit occur? What is its effect?

3) Heat energy is being produced in a resistance in a circuit at the rate of 100 W. The current of 3A is flowing in the circuit. What must be the value of the resistance?

4) Observe the figure and answer the following questions.



a) Identify the machine shown in figure

b) Write a use of this machine

c) How transformation of energy takes place in this machine?

Q. 4 : Solve the following question (Any One)

(05)

1) Explain the construction and working of Electric motor with the help of neat and well labelled diagram.

2) Define solenoid. Explain magnetic field due to a current in a solenoid with diagram.

BECOME AN ACE IN JEE & NEET



SHIKSHA CLASSES

Believe & Achieve

JEE | NEET | Previsa (8-10)

📞 8625055707 | 8623085707 🌐 shikshaclasses.co.in

M-19, MHADA Colony, Khat Road, Bhandara



Learn with Jaiswal sir