



PHYSICS

BOOKS - S CHAND IIT JEE

FOUNDATION

ELECTRICITY

Question Bank Fill In The Blank

1. The path along which electricity travels is called a ____



[Watch Video Solution](#)

2. A device that is used to break or make an electric circuit is called, _____



[Watch Video Solution](#)

3. An electric circuit in which there is no gap is called a. ____ circuit.



[Watch Video Solution](#)

4. Air is not a conductor of electricity. It is an



Watch Video Solution

5. A substance that conducts electricity in a solution is called an _____



Watch Video Solution

6. Electric current is the flow of _____ .





[Watch Video Solution](#)

7. An atom contains protons, neutrons and



[Watch Video Solution](#)

8. A _____ is a material that allows an electric charge to pass through it easily



[View Text Solution](#)

9. A ____ is a material that does not easily allow a charge to pass through it.



[View Text Solution](#)

10. Electric charge is a ____ of matter.



[Watch Video Solution](#)

11. Electrons have a ____ charge.



[Watch Video Solution](#)

12. Protons have a ____ charge.



[Watch Video Solution](#)

13. An electric current is a _____ of electric charges.



[Watch Video Solution](#)

[Question Bank](#)

1. Choose the letter of the best answer

An electric charge is a

- A. kind of liquid
- B. type of matter
- C. kind of chemical reaction
- D. force acting at a distance

Answer:



Watch Video Solution

2. Choose the letter of the best answer

Which of the following statements is true?

- A. Electricity can be created
- B. Electricity flows in a circuit with gaps
- C. Electricity is the flow of negative charge
- D. All of the above

Answer:



Watch Video Solution

3. Choose the letter of the best answer

What happens to a circuit when the switch is off?

- A. The circuit is complete
- B. There is a gap in the circuit
- C. Electricity flows continuously
- D. Electricity flows discontinuously

Answer:



Watch Video Solution

4. Choose the letter of the best answer

Two like charges

- A. repel each other
- B. first repel then attract
- C. first attract then repel
- D. attract each other

Answer:



Watch Video Solution

5. Choose the letter of the best answer

Which of the following is not a bad conductor?

A. Mica

B. Iron

C. Wood

D. Rubber

Answer:



Watch Video Solution

6. Look at the circuit shown here

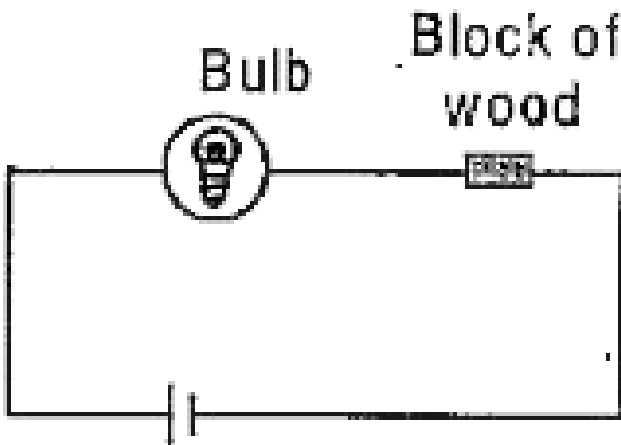
Will the bulb glow ?If not, why not?



[View Text Solution](#)

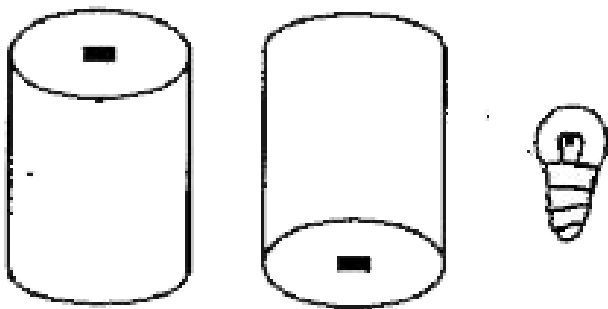
7. Look at the circuit shown here

What should be done to make the bulb glow?



[Watch Video Solution](#)

8. Draw wires to connect the bulb to the battery so that the bulb glows with maximum brightness.



[Watch Video Solution](#)

9. The electric current is produced due to

A. flow of electrons

B. flow of protons

C. flow of positive and negative charges

D. vibration of atoms

Answer:



Watch Video Solution

10. Answer 'True or False' for the following statements.

Electric current can flow through metals



[Watch Video Solution](#)

11. Answer 'True or False' for the following statements.

Instead of metal wires, a jute string can be used to make a circuit



[Watch Video Solution](#)

12. Answer 'True or False' for the following statements.

Electric current can pass, through a sheet of thermocol



[Watch Video Solution](#)

13. The two places on a battery to which the circuit wires can be attached are called.

- A. switch
- B. filament
- C. terminals
- D. insulators

Answer:



Watch Video Solution

14. Using the 'conduction tester on an object it was found that the bulb begins to glow. Is that object a conductor or an insulator? Explain.



Watch Video Solution

15. The conventional direction of an electric current is

A. from excess electrons to deficient electrons

B. from deficient electrons to excess electrons

C. from high temperature to low temperature

D. current has no direction.

Answer: A



Watch Video Solution

16. When few electrons are removed from a neutral body, the body is charged

A. positive

B. negative

C. neutral

D. none of the above

Answer: A



Watch Video Solution

17. What constitutes current in a metal wire ?

A. electrons

B. protons

C. atoms

D. molecules

Answer: A



Watch Video Solution

18. The commonly used safety fuse wire is made of

A. lead

B. copper

C. nickel

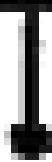
D. an alloy of tin and lead

Answer: B



Watch Video Solution

19. Priyanka connected two different pieces of material and enclosed them in a box with three. External connections A, B, C as shown. She then asked Rekha to guess how the two pieces of material were connected. Rekha conducted the following experiments with the black box.



A

B

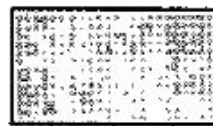
C



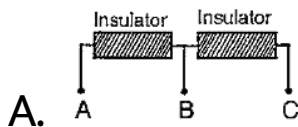
Bulb did not light up

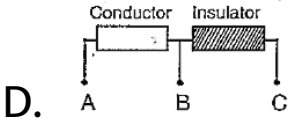
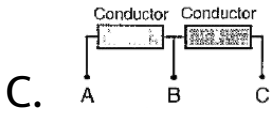
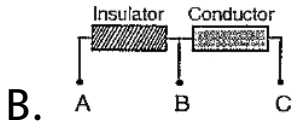


Bulb lighted up



Bulb did not light up





Answer: B



Watch Video Solution

20. If we touch a naked current carrying wire, we get a shock. This happens because our body is a

A. insulator of electricity

B. source of electricity

C. conductor of electricity

D. both (a) and (b)

Answer: C



Watch Video Solution

21. Which of the following is the best conductor of electricity ?

A. ordinary water

B. boiled water

C. cold water

D. distilled water

Answer: B



Watch Video Solution

22. The metal used in storage batteries is

A. iron

B. copper

C. lead

D. tin

Answer: C



Watch Video Solution

23. The filament of an electric bulb is made of

A. iron

B. nichrome

C. tungsten

D. graphite

Answer: C



Watch Video Solution

24. The handle of every repairing tool is covered by a certain insulating material so that the user may not get an electric shock. Which of the following materials cannot be used to cover the handle

A. Wood

B. Plastic

C. Glass

D. Tin

Answer: D



Watch Video Solution

25. Overhead cables need not be insulated because

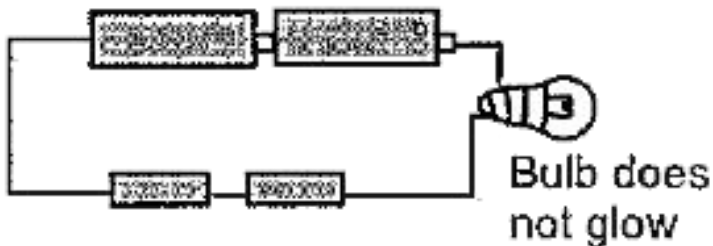
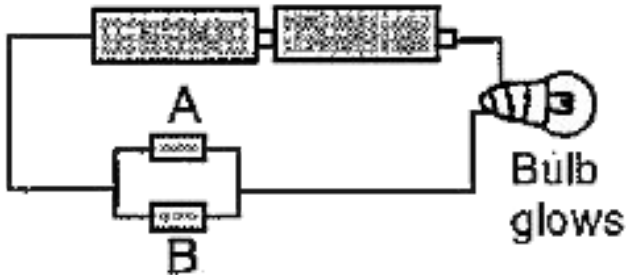
- A. air is a bad conductor of electricity
- B. air is a good conductor of electricity
- C. bare wires conduct electricity better than insulated wires
- D. none of these

Answer: A



Watch Video Solution

26. Look at the two electric circuits using materials A and B as shown below



What do you conclude from the above ?

A. A is a conductor and B is an insulator ?

B. A is an insulator and B is a conductor

C. Either A or B is an insulator

D. Both A and B are conductors

Answer: C



View Text Solution

27. Safety wire, used in electrical circuits, is made of a material having

A. low melting point

B. high melting point

C. high resistance

D. none of these

Answer: A



Watch Video Solution

28. The best conductor of electricity is

A. Aluminium

B. Iron

C. Copper

D. Silver

Answer: D



Watch Video Solution

29. Which of the following statements is true?

A. Lightning never hits trees

B. Riding a bicycle during lightning is safe

C. Going for a swim during a lightning strike
is safe

D. Tall objects are more prone to lightning strikes

Answer: D



Watch Video Solution

30. Which of the following cells is rechargeable ?

A. Daniell cell

B. Leclanche cell

C. Lead cell

D. Volta cell

Answer: C



Watch Video Solution

31. Tungsten is used for the manufacture of the filament of an electric bulb because

A. it is a good conductor

B. it is economical

C. it is malleable

D. it has a very high melting point

Answer: D



Watch Video Solution

32. Conversion of chemical energy into electrical energy occurs in

A. dynamos

B. electric heaters

C. batteryy

D. atomic bombs

Answer: C



Watch Video Solution

33. A current is passed through a vertical spring from whose lower end a weight is hanging. What will happen to the weight ?

A. The weight shall go up

B. The weight shall go down

C. The position of the weight will remain
the same

D. The weight shall oscillate

Answer: D



Watch Video Solution

34. Lightning conductors are made of

A. Iron

B. Copper

C. Steel

D. Chromium

Answer: B



Watch Video Solution

35. The acid used in lead storage cells is

A. phosphoric acid

B. hydrochloric acid

C. nitric acid

D. sulphuric acid

Answer: D



Watch Video Solution

36. Consider the following statements

(1) An isolated electric charge exists but an isolated magnetic monopole does not exist.

(2) Electric lines of force are not closed, but

magnetic lines of force are closed. Which of the statements given above is/are correct?

A. 1 only

B. 2 only.

C. Both 1 and 2

D. Neither 1 nor 2

Answer: C



Watch Video Solution

37. Which one of the following particles can be added to the nucleus of an atom, without changing, its chemical properties?

A. Electrons

B. Protons

C. Neutrons

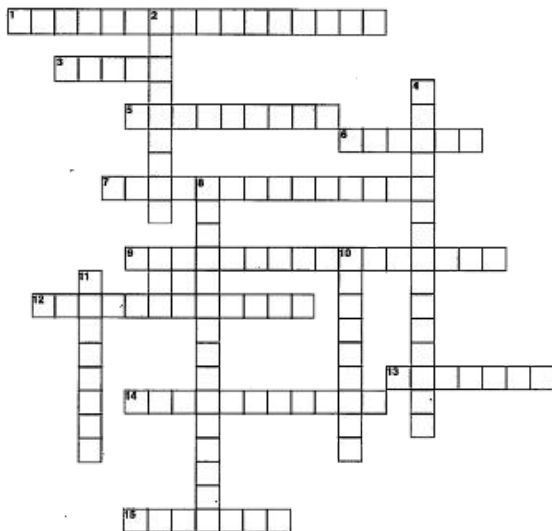
D. None of the above

Answer: C



Watch Video Solution

38. Solve the following crossword with the help of the given clues



ACROSS

- The flow of electricity through a material.
- Smallest particles that make up the basic structure of a chemical element.
- Elementary particles in an atom which carry a negative electric charge and revolve around the nucleus of the atom.
- The SI unit for electric current
- An electric circuit through which current can flow in an uninterrupted path.
- The path along which electrical charges move.
- An electric circuit through which current cannot flow because of a break in the path.
- Particles in the nucleus of an atom. They have a positive electric charge.
- A substance that can conduct electricity in a solution.
- An instrument that measures the strength of an electric current in units called amperes.

DOWN

- A material like rubber is a poor conductor and that blocks or slows down the passage of electricity.
- Energy produced by an electric current.
- Charge relating to electricity that is made up of positive and negative charge.
- Materials (like copper) or objects that allows electric charge to flow easily through it.
- One of the particles having no electric charge that make up an atom.



View Text Solution

Self Assessment Sheet

1. Match correctly

Column I

1. Insulator
2. Used for making filament of a bulb
3. Conductor
4. Converts chemical energy into electrical energy
5. Device used to break or complete a circuit
6. Group of two or more cells

Column II

- a. cell
- b. switch
- c. plastic
- d. graphite
- e. battery
- f. Tungsten



Watch Video Solution

2. Answer True or False

Human body is a bad conductor of electricity



[Watch Video Solution](#)

3. Answer True or False

A cell always has two terminals.



[Watch Video Solution](#)

4. Answer True or False

A copper wire is an insulator:



[Watch Video Solution](#)

5. Answer True or False

Electric current is caused by flow of protons.



[Watch Video Solution](#)

6. Answer True or False

A microwave oven used in homes converts electrical energy into heat energy.



[Watch Video Solution](#)

7. Answer True or False

The air gap surrounding an electric circuit acts as an insulator



[Watch Video Solution](#)

8. Answer True or False

Metals are non-conductors-of electricity



[Watch Video Solution](#)

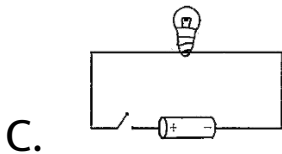
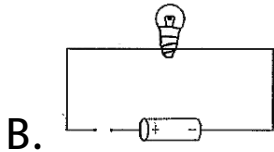
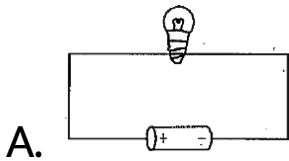
9. Answer True or False

A solution of salt in water is a conductor of electricity.



[Watch Video Solution](#)

10. In which of the following circuits will the bulb glow



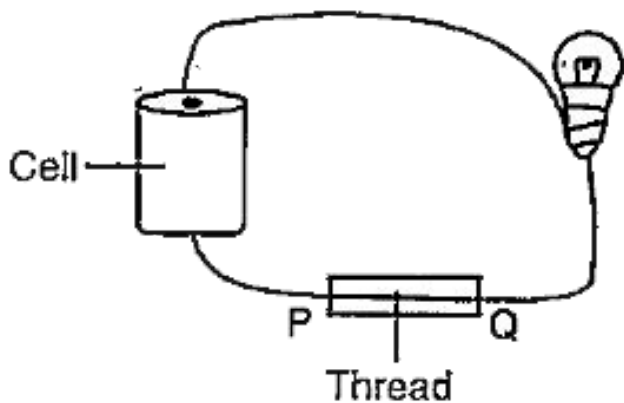
D. none of these

Answer: A



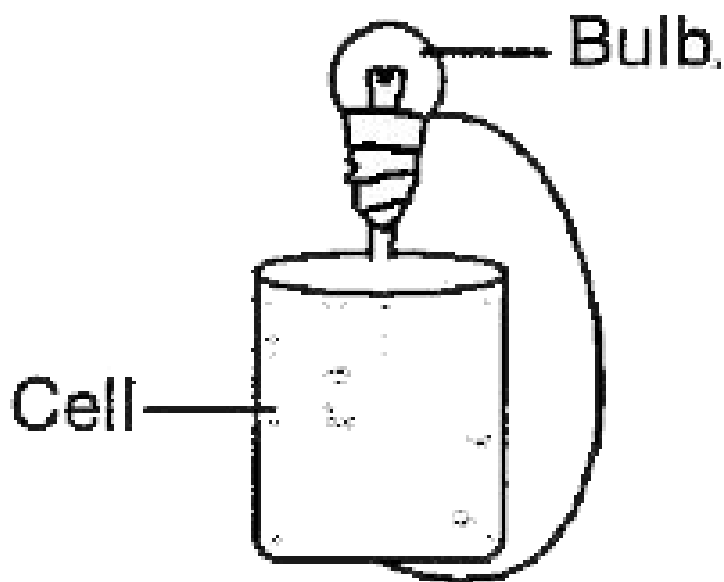
Watch Video Solution

11. A student connected the terminals P and Q by a piece of thread. Will the bulb glow?



[Watch Video Solution](#)

12. Irshad connected a bulb to a cell as shown but the bulb did not glow. What could be the reason?



[Watch Video Solution](#)

13. The filament of a bulb is

A. Conductor

B. Insulator

C. Semi-conductor

D. Both (a) and (b)

Answer: A



Watch Video Solution

14. Switches, plugs and sockets are made of

A. Conductors only

B. Insulators only

C. Semi-conductors covered with insulators

D. Semi-conductors only

Answer: B



Watch Video Solution

15. How is cell represented in a circuit diagram

A. A circle with a cross inside it

B. A long line and a short line

C. A long straight line

D. A cross inside, a square

Answer: B



Watch Video Solution

16. Which of the following non-metals is, a good conductor of electricity ?

A. Hydrogen gas

B. Diamond

C. Sulphur

D. Graphite

Answer: D



Watch Video Solution

17. Rajesh has two bulbs connected across two cells in a simple circuit. How can he make the bulbs glow dimmer?

- A. Replace one cell with a piece of chalk
- B. Replace one cell with a piece of wire
- C. Replace one bulb with a piece of wire
- D. Replace one bulb with another cell

Answer: B



Watch Video Solution

18. Which of the following is a bad conductor of electricity ?

A. Acid

B. Coal

C. Distilled water

D. Human body

Answer: C



Watch Video Solution

19. The metallic cap projecting out from the top of a cell is

A. switch

B. positive terminal

C. negative terminal

D. spring

Answer: B



Watch Video Solution

20. All liquids are non-conductor of electricity
except

A. mobil oil

B. coconut oil

C. glycerine

D. mercury

Answer: D



Watch Video Solution

21. Pure water is a non-conductor of electricity but can be made conductor by adding to it

A. sugar

B. drops of oil

C. salt

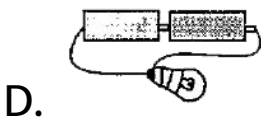
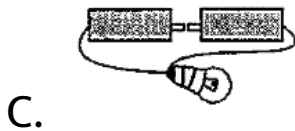
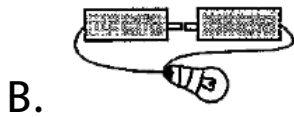
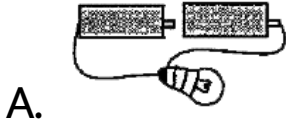
D. pieces of wood

Answer: C



Watch Video Solution

22. Which of the following is the correct way of Setting a circuit



Answer: D



Watch Video Solution

