

**CLASS VIII – SCIENCE – CHAPTER 14**  
**CHEMICAL EFFECTS OF ELECTRIC CURRENT**

Name:

Date:

- 01.** Which of the following will conduct electricity?  
(a). pure water      (b). impure water      (c). distilled water      (d). all the above
- 02.** LED is: -  
(a). light emitting diode      (b). light evolving diode  
(c). light eliminating diode      (d). light entering diode
- 03.** An electrolytic cell converts: -  
(a). electrical energy to light energy      (b). chemical energy to electrical energy  
(c). chemical energy to light energy      (d). electrical energy to chemical energy
- 04.** An electric current is generated due to: -  
(a). flowing protons      (b). flowing neutrons      (c). flowing electrons      (d). all the above
- 05.** Sugar solution is an: -  
(a). electrolyte      (b). non electrolyte      (c). cation      (d). anion
- 06.** Effect/s of electric current includes: -  
(a). chemical effect      (b). magnetic effect      (c). heating effect      (d). all the above
- 07.** Lime water conducts electricity because: -  
(a). it is acidic in nature      (b). it is basic in nature  
(c). it is neutral in nature      (d). it is a salt
- 08.** Protons are: -  
(a). negatively charged particles      (b). uncharged particles  
(c). positively charged particles      (d). particles not found in an atom
- 09.** A charged atom is called as: -  
(a). ion      (b). element      (c). compound      (d). complex
- 10.** Plastic coating on wires is a: -  
(a). conducting material      (b). electroplating material  
(c). insulating material      (d). atomic nucleus material
- 11.** Which of the following will not conduct electricity?  
(a). distilled water      (b). glucose solution      (c). pure water      (d). all the above
- 12.** A non-metal that conducts electricity is: -  
(a). graphite      (b). diamond      (c). Sulphur      (d). nitrogen
- 13.** During electrolysis of water, hydrogen gas collects at: -  
(a). cathode      (b). anode      (c). diode      (d). both electrodes
- 14.** A good conductor of electricity will be: -  
(a). distilled water + common salt      (b). distilled water + vegetable juice  
(c). distilled water + fruit juice      (d). all the above

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15. The container which carries electrolyte along with electrodes is called: -  
(a). electrometer (b). electrolyter (c). voltameter (d). ammeter
16. In the process of electrolysis of water: -  
(a). hydrogen gas collects at anode (b). oxygen gas collects at cathode  
(c). oxygen gas collects at anode (d). no gases are collected at either electrodes
17. Electrolysis is \_\_\_\_\_ effect of electric current: -  
(a). magnetic (b). chemical (c). heating (d). physical
18. Iron is electroplated with \_\_\_\_\_ to protect it from corrosion: -  
(a). tin (b). copper (c). silver (d). chromium
19. The person who had shown that if electrodes were immersed in water, and a current was passed, bubbles of oxygen and hydrogen were produced: -  
(a). Nicholson (b). Sir Humphrey Davy (c). Faraday (d). Galvani

### Q01. Match the column: -

- |  |  |
|--|--|
| <b>(A).</b> (a). Cathode<br>(b). cations<br>(c). Anode<br>(d). anions<br>(e). Electroplating                           | i) positively charged ions<br>ii) negative electrode<br>iii) resist corrosion<br>iv) positive electrode<br>v) negatively charged ions                            |
| <b>(B).</b> (a). pure water<br>(b). anions<br>(c). Impure water<br>(d). aqueous solution<br>(e). cations               | i) negatively charged particles<br>ii) good conductor<br>iii) positively charged particles<br>iv) distilled water<br>v) dissolution in water                     |
| <b>(C).</b> (a). lead<br>(b). chloride ions<br>(c). sodium ions<br>(d). glass<br>(e). common salt                      | i) electrolyte<br>ii) insulator<br>iii) conductor<br>iv) anion<br>v) cation  |
| <b>(D).</b> (a). electro deposition<br>(b). weak electrolyte<br>(c). cations<br>(d). anions<br>(e). strong electrolyte | i) ionize partially<br>ii) collect on positively charged electrode<br>iii) ionize completely<br>iv) electroplating<br>v) collect on negatively charged electrode |

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<b>(E). Salt</b>	At cathode
(a). sodium chloride	i) copper
(b). lead nitrate	ii) silver
(c). copper sulphate	iii) aluminium
(d). silver nitrate	iv) lead
(e). Aluminium chloride	v) hydrogen gas

### **Q02. Fill in the blanks: -**

- An electric current can bring about a \_\_\_\_\_ change.
- An \_\_\_\_\_ when dissolved in water, breaks up into ions.
- \_\_\_\_\_ are materials that allow electricity to flow through them.
- \_\_\_\_\_ are also called as insulators.
- A source of electricity is called a \_\_\_\_\_.
- Electrolysis is used for \_\_\_\_\_ one metal over another metal.
- A combination of cells is known as \_\_\_\_\_.
- In liquid the moving charges are called \_\_\_\_\_.
- The driving force that carries charges around a circuit is \_\_\_\_\_ force.
- Electric current is the flow of negatively charged particles called \_\_\_\_\_

### **Q03. True or false: -**

- Every ion has both positive as well as negative charges.
- Electricity is a form of energy.
- Asbestos is a good conductor of electricity.
- Current flows in a closed circuit as well as an open circuit.
- Different LEDs may give out light of different colours.
- Natural water that runs down the hills is 100% pure water.
- Formation of a new chemical compound by electricity is electrolysis.
- Kerosene is a non electrolyte.
- Lemon juice is an electrolyte.
- All liquids conduct electricity.
- Passing electric currents through a conducting liquid causes chemical changes.
- Electrolysis is an application of electroplating.
- Vinegar is a conductor of electricity.
- A solution that contains oppositely charged ions conducts electricity.
- Glucose solution is an electrolyte and hence conducts electricity.

**Q04.** Define electrolysis. Through diagram represent movement of ions during electrolysis.

**Q05.** Write one important application of electrolysis in our daily life.

**Q06.** What is the actual direction of electric current?

**Q07.** Why is it dangerous to handle electrical appliances with wet hands or while standing on a wet floor ?

**Q08.** Is electric shock lethal? What should be done in case of electric shock?

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**Q09.** What is depleting? How is it useful?

**Q10.** Are conductors and electrolytes same? If not explain differences between them with examples.

**Q11.** Purification of metals is possible through electrolysis. Describe this application.

**Q12.** Describe the specific features of an LED?

**Q13.** Chrome plating is very popular in the industry. What are its pros and cons?

**Q14.** Pick the odd word out of the following:

(a). salt solution, sugar solution, lime water, tap water, river water.

(b). nitric acid, sulphuric acid, carbonic acid, sodium chloride, potassium hydroxide.

(c). Sulphur, Quartz, Glass, Brass, Plastic, Dry wood.

**Q12.** What conclusion can be drawn from the circuit shown in the image below :

