

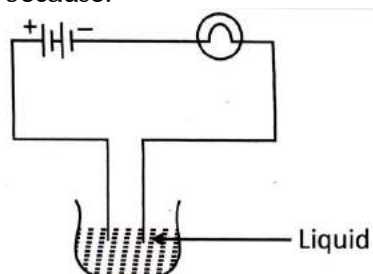
Chemical Effects of Current and Light

Practice Exercise

1. Which one of the following is a weak electrolyte?

(a) HCl solution
(b) Citric acid solution
(c) $NaOH$ solution
(d) $CuSO_4$ solution
(e) None of these

2. A bulb placed in the electric circuit in the given experimental set-up does not glow because:



(a) The liquid used in the above experiment may be a strong electrolyte.
(b) The liquid used in the above experiment may not be conducting electricity.
(c) The bulb may be fused
(d) Both (b) and (c)
(e) None of these

3. LED refers to:

(a) Light emitting diode
(b) Light electrolyte diode
(c) Less electrolyte demand
(d) Light electrolyte demand
(e) None of these

4. Which one of the following is correct pair?

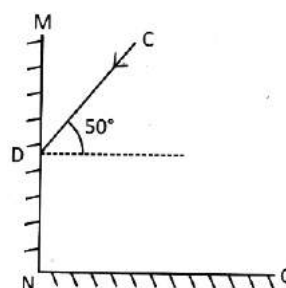
(a) Cathode - Positive electrode
(b) Anode - Negative electrode
(c) Cation - Negative ion
(d) Anion - Positive ion
(e) None of these

5. In electrolysis, salt solution breaks up into positively and negatively - charged particles are called:

(a) Electrodes
(b) Electrons
(c) Ions
(d) Insulators

- (e) None of these

6. Two plane mirrors MN and NO are kept at right angle to each other as shown in the given figure. A ray of light CD is incident on the mirror MN and the angle of incidence is 50° . What will be the angle of reflection for the mirror NO.



(a) 50°
(b) 60°
(c) 30°
(d) 40°
(e) None of these

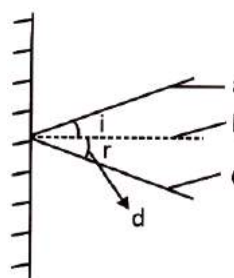
7. Galvanization involves the coating of which metal over steel or iron?

(a) Chromium
(b) Copper
(c) Zinc
(d) Brick
(e) None of these

8. Which of the following is correct for electroplating a metal X with copper through electrolyses?

(a) Metal X-Anode
(b) Copper-Cathode
(c) Copper sulphate solution - Electrolyte
(d) All the above
(e) None of these

9. Choose the correct option for the given figure.



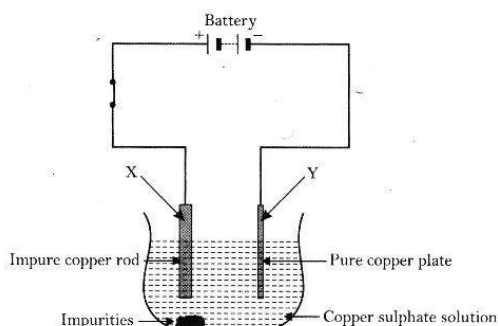
- (a) (a - incident ray), (b - normal ray), (c - reflected ray), (d - angle of incidence)
 (b) (a - reflected ray), (b - incident ray), (c - normal ray), (d - angle of reflection)
 (c) (a - incident ray), (b - normal ray), (c - reflected ray), (d - angle of reflection)
 (d) (a - angle of incidence), (b - normal ray), (c - reflected ray), (d - incident ray)
 (e) None of these

- 10.** The process of depositing a thin layer of desired metal over a metal object with the help of electric current is called?
 (a) Combination (b) Electroplating
 (c) Electrolysis (d) All the above
 (e) None of these

- 11.** When a ray of light falls normally on a plane mirror, then the angle of incidence is:
 (a) 30° (b) 0°
 (c) 180° (d) 60°
 (e) None of these

- 12.** On which of the following surfaces diffused reflection will not take place
 (a) Paper
 (b) Plane mirror
 (c) Cardboard
 (d) Unpolished metal object
 (e) None of these

- 13.** Look at the following figure and choose the correct option.



- (a) X represents anode, Y represents cathode
 (b) X represents cathode, Y represents anode
 (c) Both represent anode
 (d) Both represent cathode
 (e) None of these

- 14.** Which one of the following is an effect produced by electric current?

- (a) Heating effect (b) Chemical effect
 (c) Magnetic effect (d) All the above
 (e) None of these

- 15.** Electrode connected to negative terminal of the battery is a/an:

- (a) Electrolyte (b) Anode
 (c) Cathode (d) Cell
 (e) None of these

- 16.** _____ is an apparatus used to produce a thin beam of light.

- (a) Microscope (b) Telescope
 (c) Ray-box (d) Pin-hole camera
 (e) None of these

- 17.** Image formed by a plane mirror is:

- (a) Real
 (b) In front of the mirror
 (c) Diminished
 (d) Laterally inverted
 (e) None of these

- 18.** Raman is standing at a distance of 2.5m from a plane mirror, how far he would be from his image?

- (a) 2.5m (b) 5m
 (c) 3m (d) 1m
 (e) None of these

- 19.** To purify copper metal by electrolysis which of the following is used as electrolyte

- (a) NaCl solution (b) CuSO_4 solution
 (c) H_2SO_4 solution (d) MgSO_4 solution
 (e) None of these

- 20.** _____ is used in a periscope for the reflection of light.

- (a) Concave lens (b) Convex lens
 (c) Concave mirror (d) Plane mirror
 (e) None of these

- 21.** What will be the number of images formed when two plane mirrors are kept inclined at an angle of 60° .

- (a) 4 (b) 5
 (c) 10 (d) 3
 (e) None of these

- 22.** Hole present at the center of iris called:
 (a) Retina (b) Blind spot
 (c) Pupil (d) Eye lens
 (e) None of these
- 23.** Which of the following solutions will not make the bulb glow placed in an electric circuit?
 (a) Sulphuric acid solution
 (b) Sodium chloride solution
 (c) Silver nitrate
 (d) Sugar solution in diluted water
 (e) None of these
- 24.** Which one of the following observations can be observed when electric current is passed through an electrolyte in which two electrodes are present?
 (a) Bubbles of gas may be formed on the electrodes.
 (b) Deposits of metal may be seen on electrodes.
 (c) Change in the colour of the solution may take place.
 (d) All the above
 (e) None of these
- 25.** Radhika is standing at a distance of 10 cm from the plane mirror, how far should she move so that the distance between her and her image will become 10 cm.
 (a) 10 cm towards the mirror.
 (b) 5 cm away from the mirror.
 (c) 5 cm towards the mirror.
 (d) 10 cm away from the mirror.
 (e) None of these
- 26.** In electroplating the metal on which electroplating is to be done is made the:
 (a) Anode (b) Cathode
 (c) Electrolyte (d) Electric cell
 (e) None of these
- 27.** Hypermetropia can be corrected by using:
 (a) Concave lens
 (b) Convex lens
 (c) Concave mirror
 (d) Concavo - convex lens
 (e) None of these

- 28.** ____ metal is mostly used for electroplating on car parts, bicycle-handlebars to give them a shiny appearance.
 (a) Iron (b) Copper
 (c) Chromium (d) Aluminum
 (e) None of these
- 29.** Which gas is produced at anode when current passes through acidified water?
 (a) Hydrogen (b) Oxygen
 (c) Nitrogen (d) Fluorine
 (e) None of these
- 30.** Human eye-lens is a:
 (a) Concave lens
 (b) Convex lens
 (c) Concavo - Convex lens
 (d) Convexo - Concave lens
 (e) None of these
- 31.** Which one of the following is an application of chemical effect of current?
 (a) Electroplating
 (b) Purification of metals
 (c) Decomposing chemical compounds
 (d) All the above
 (e) None of these
- 32.** ____ effect of electric current is indicated by change in colour of a solution by passing electric current through it.
 (a) Physical (b) Chemical
 (c) Heating (d) Magnetic
 (e) None of these
- 33.** Rajan wants to deposit a layer of silver metal on a steel spoon then match the following according to the above statement.

Column A		Column B	
(i)	Silver	(A)	Cathode
(ii)	Steel	(B)	Electroplating
(iii)	Silver cyanide solutions	(C)	Anode
(iv)	Process	(D)	Electrolyte

- (a) (i-C), (ii-D), (iii-B), (iv-A)
 (b) (i-C), (ii-A), (iii-D), (iv-B)
 (c) (i-A), (ii-C), (iii-D), (iv-B)
 (d) (i-A), (ii-B), (iii-C), (iv-D)
 (e) None of these

- 34.** Number of images formed is three when two plane mirrors are inclined at angle of:
 (a) 60° (b) 30°
 (c) 90° (d) 25°
 (e) None of these
- 35.** An instrument which works by producing multiple reflections from plane mirrors and forms beautiful patterns is:
 (a) Periscope (b) Telescope
 (c) Kaleidoscope (d) Pinhole camera
 (e) None of these
- 36.** Which one of the following eye parts can change the focal length of the eye-lens according to the requirements of the eye to see distant objects or nearby objects?
 (a) Retina (b) Ciliary muscles
 (c) Pupil (d) Cornea
 (e) None of these
- 37.** _____ is the screen on which the image is formed in the eye.
 (a) Iris (b) Pupil
 (c) Retina (d) Eye-lens
 (e) None of these
- 38.** Glowing of bulb when current passes through it is an example of:
 (a) Chemical effect of electric current.
 (b) Heating effect of electric current.
 (c) Magnetic effect of electric current.
 (d) All the above
 (e) None of these
- 39.** _____ adjusts the size of _____ according to the intensity of light received by the eye from the surroundings.
 (a) Retina, pupil (b) Iris, retina
 (c) Iris, pupil (d) Pupil, Iris
 (e) None of these
- 40.** Which one of the following statements is correct?
 (a) Anvil is a part of human eye.
 (b) Space between cornea and eye-lens is filled with aqueous humour.
 (c) Space between eye-lens and retina is filled with vitreous humour.
 (d) Both (b) and (c)
 (e) None of these

Answer Key

1. B	2. D	3. A	4. E	5. C
6. D	7. C	8. C	9. C	10. B
11. B	12. B	13. A	14. D	15. C
16. C	17. D	18. B	19. B	20. D
21. B	22. C	23. D	24. D	25. C
26. B	27. B	28. C	29. B	30. B
31. D	32. B	33. B	34. C	35. C
36. B	37. C	38. B	39. C	40. D