

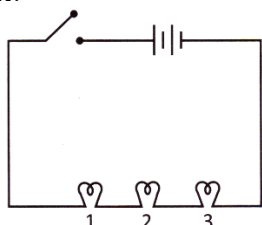
Electricity and Light

Practice Exercise

1. An instrument that automatically stops the current in a circuit if the current in it exceeds the specified maximum limit.

(a) Positive terminal (b) MCB
(c) Negative terminal (d) ISI
(e) None of these

2. Which of the following statements will be true for the given circuit, when the switch will be on?

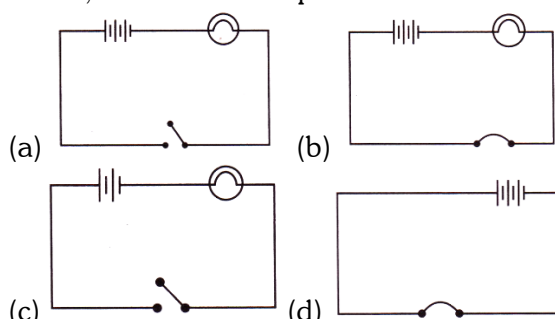


(a) Lamp 3 will glow first.
(b) Lamp 1 will glow first.
(c) Lamp 1 and 2 will glow together and lamp 3 will glow later.
(d) All the lamps will glow together
(e) None of these

3. Short wire has _____ resistance. whereas long wire has _____ resistance.

(a) More, less (b) Less, no
(c) Less, more (d) All the above
(e) None of these

4. A circuit diagram which includes a battery of 3 cells, a bulb and an open switch is:



(e) None of these

5. Nichrome is an alloy of:

(a) Chromium (b) Iron
(c) Nickel (d) All the above

(e) None of these

6. Element of electric iron become red-hot on passing current because:

(a) Colour of element is red.
(b) It has very high resistance.
(c) It has a thick wire.
(d) All the above
(e) None of these

7. "A wire carrying an electric current possesses a magnetic field around it" was concluded by:

(a) Charles Darwin (b) Galileo Galilei
(c) H.C. Oersted (d) Albert Einstein
(e) None of these

8. Electric fuse is used to protect household electric appliances from accidental:

(a) Small flow of current
(b) Large flow of current
(c) No flow of current
(d) All the above
(e) None of these

9. When a switch is in ON position,

(i) Circuit is open
(ii) Circuit is closed
(iii) Current is flowing in the circuit
(iv) No Current is flowing through it
Choose the correct combination of answer for the above information.

(a) (i) and (ii) (b) (ii) and (iii)
(c) (iii) and (iv) (d) (i) and (iv)
(e) None of these

10. More heat is produced in an electric circuit when:

(a) Magnitude of current is increased.
(b) Wire with greater resistance is use.
(c) Bulb with broken filament is used.
(d) Both (a) and (b)
(e) None of these

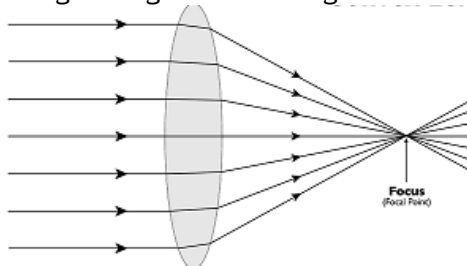
11. Thickness of wire used in working circuit M is more than the thickness of wire used in circuit N. Which of the following options is correct?

- (a) More heat will be produced in circuit M than circuit N.
 (b) More heat will be produced in circuit N than circuit M.
 (c) Equal amount of heat will be produced in both the circuits.
 (d) No heat will be produced.
 (e) None of these
- 12.** A solenoid acts as a ____ when electric current passes through it.
 (a) Resistor (b) Bar magnet
 (c) Insulator (d) Electric torch
 (e) None of these
- 13.** A circuit in which current is flowing, consists of a steel spoon coiled with copper wire, when some allpins are brought near this spoon, the allpins get attracted due to:
 (a) Heating effect of current
 (b) Chemical effect of current
 (c) Magnetic effect of current
 (d) All the above
 (e) None of these
- 14.** ____ is a magnet produced by electric current.
 (a) Bar magnet
 (b) Permanent magnet
 (c) Electromagnet
 (d) All the above
 (e) None of these
- 15.** Current means:
 (a) Flow of protons in the circuit.
 (b) Flow of neutrons in the circuit.
 (c) Flow of electrons in the circuit.
 (d) All the above
 (e) None of these
- 16.** ____ is measured by voltmeter.
 (a) Current (b) Resistance
 (c) Potential difference (d) Magnetism
 (e) None of these
- 17.** Which is the commercial unit of electrical energy?
 (a) Joule / s (b) Kilowatt
 (c) Joule (d) Kilowatt-hour
 (e) None of these
- 18.** Electric fuse works on ____ effect of electric current.
 (a) Magnetic (b) Lightening
 (c) Chemical (d) Heating
 (e) None of these
- 19.** Which one of the following pairs is incorrect?
 (a) Low resistivity - high conductivity
 (b) High resistivity - Low conductivity
 (c) Long wire - Low resistance
 (d) Thin wire - High resistance
 (e) None of these
- 20.** The amount of current that flows depends on the amount of ____ applied by the battery.
 (a) Voltage (b) Resistance
 (c) Heat (d) All the above
 (e) None of these
- 21.** Bulging outward surface of a spoon is:
 (a) Concave (b) Convex
 (c) Plane mirror (d) Concavo-convex
 (e) None of these
- 22.** ____ is used in car headlights to reflect the light of the bulb.
 (a) Concave mirror (b) Convex mirror
 (c) Convex lens (d) Concave lens
 (e) None of these
- 23.** If an object is placed between focus and pole of the concave mirror then image formed will be:
 (a) Diminished and erect
 (b) Inverted and diminished
 (c) Magnified and erect
 (d) Magnified and inverted
 (e) None of these
- 24.** A dentist uses ____ to see a magnified image of a teeth.
 (a) Concave mirror (b) Convex mirror
 (c) Plane mirror (d) Concave lens
 (e) None of these
- 25.** Image formed by a plane mirror is:
 (a) Inverted and virtual (b) Virtual and erect
 (c) Inverted and real (d) Real and erect
 (e) None of these

- 26.** A virtual, erect and magnified image is obtained by a concave mirror when object is placed:
- At a distance between focal length and twice the focal length.
 - At a distance greater than twice the focal length.
 - At a distance less than its focal length.
 - Far off
 - None of these

- 27.** Distance from focus to the centre of lens is:
- Focal point
 - Focal length
 - Centre of Curvature
 - Radius of Curvature
 - None of these

- 28.** The given figure is showing:



- Converging of light rays.
 - Diverging of light rays.
 - Dispersion of light.
 - All the above
 - None of these
- 29.** From which one of the following you will always get a virtual, erect and of the same size as object image?
- Concave mirror
 - Convex mirror
 - Plane mirror
 - Concave lens
 - None of these
- 30.** Images that can be obtained on screen are:
- Virtual images
 - Real images
 - Shadows
 - Reflected images
 - None of these
- 31.** Which one of the following is the S.I. unit for potential difference?
- Ampere
 - Ohm
 - Volt
 - Metre
 - None of these

- 32.** A person is standing 2.5m from a plane mirror. How far is the image from the person?
- 2.5 m
 - 3 m
 - 5 m
 - 2.8 m
 - None of these

- 33.** A ray of light is incident on a plane mirror and angle of incidence is 80° . Calculate the angle between incident ray and the reflected ray.
- 80°
 - 40°
 - 160°
 - 100°
 - None of these

- 34.** Radius of curvature of a concave mirror is 8 cm. What is the focal length the concave mirror?
- 8 cm
 - 4 cm
 - 16 cm
 - 20 cm
 - None of these

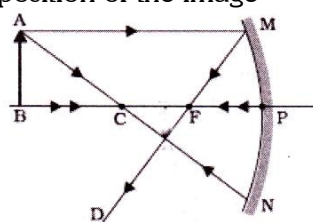
- 35.** The distance between focus and centre of a curved mirror is known as:
- Focal point
 - Focal length
 - Perpendicular
 - Normal
 - None of these

- 36.** A magnifying lens is a ____ lens.
- Diverging
 - Converging
 - Concave
 - Plane
 - None of these

- 37.** Power of a lens is ____.
- $2F$
 - $3F$
 - $1/F$
 - $1/2F$
 - None of these

- 38.** Phenomenon of advance sunrise and delayed sunset is caused by:
- Reflection of light
 - Refraction of light
 - Dispersion of light
 - All the above
 - None of these

- 39.** Look at the following figure and find the position of the image



- (a) At pole
- (b) At focus
- (c) Between focus and centre of curvature
- (d) Beyond centre of curvature
- (e) None of these

- 40.** Scientist who showed white light is made up of seven colours was:
- (a) Galileo Galilei
 - (b) Isaac Newton
 - (c) Nicolaus Copernicus
 - (d) James watt
 - (e) None of these

Answers – Key

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