

**BALABHADRA SKILL DEVELOPMENT ACADEMY**  
**SCIENCE QUESTION BANK - 19**

Time: 1 Hour

Full marks: 65

Pass marks: 46

1. The ability of the eye to focus on both near and distant objects, by adjusting its focal length, is called the \_\_\_\_\_ of the eye.
- 1(a) Eye loses power of accommodation with \_\_\_\_\_.
2. The smallest distance, at which the eye can see objects clearly without strain, is called \_\_\_\_\_.
3. For a young adult with normal vision, least distance of distinct vision is \_\_\_\_\_.
4. The common refractive defects of vision include \_\_\_\_\_, \_\_\_\_\_ and \_\_\_\_\_.
5. Myopia is corrected by using a \_\_\_\_\_.
- 5(a) Myopia is also called \_\_\_\_\_.
- 5(b) In Myopia, the image of distance object is focused \_\_\_\_\_ retina.
6. Hypermetropia is corrected by using a \_\_\_\_\_.
- 6(a) Hypermetropia is also called \_\_\_\_\_.
- 6(b) In Hypermetropia, image of nearby object is formed by \_\_\_\_\_ retina.
7. The splitting of white light into its component colours is called \_\_\_\_\_.
8. \_\_\_\_\_ of light causes the blue colour of sky and the reddening of the Sun at sunrise and sunset.
9. A stream of \_\_\_\_\_ moving through a conductor constitutes an electric current.
10. The direction of current is taken \_\_\_\_\_ to the direction of flow of electron.
11. The SI unit of electric current is \_\_\_\_\_.
12. To set the electrons in motion in an electric circuit \_\_\_\_\_ is used.
13. A cell generates a \_\_\_\_\_ across its terminals.
- 13(a) Unit of potential difference is \_\_\_\_\_.
14. \_\_\_\_\_ is a property that resists the flow of electrons in a conductor.
15. \_\_\_\_\_ controls the magnitude of the current.
16. The SI unit of resistance is \_\_\_\_\_.
17. The resistance of a conductor depends directly on its \_\_\_\_\_, inversely on its \_\_\_\_\_, and \_\_\_\_\_.
18. The equivalent resistance of several resistors in series is equal to the \_\_\_\_\_ of their individual resistances.
- 18(a) When resistors are in parallel, the reciprocal of equivalent resistance is equal to \_\_\_\_\_.
19. The electrical energy dissipated in a resistor is given by  $W =$  \_\_\_\_\_.
20. The unit of power is \_\_\_\_\_.
21. \_\_\_\_\_ watt of power is consumed when 1 A of current flows at a potential difference of 1 V.
22. The commercial unit of electrical energy is \_\_\_\_\_.
23. 1 kW h = \_\_\_\_\_.
24. A compass needle is a \_\_\_\_\_.
25. One end of compass, which points towards north, is called a \_\_\_\_\_, and the other end, which points towards south, is called a \_\_\_\_\_.
26. A \_\_\_\_\_ field exists in the region surrounding a magnet, in which the force of the magnet can be detected.
27. Field lines are used to represent a \_\_\_\_\_ field.
28. A field line is the path along which a \_\_\_\_\_ would tend to move.

29. The direction of the magnetic field at a point is given by the direction that \_\_\_\_ placed at that point would take.
- 29(a) Field lines are closer where magnetic field is \_\_\_\_.
30. A metallic wire carrying an electric current is associated with \_\_\_\_.
31. The field lines about current carrying wire consist of a series of concentric circles whose direction is given \_\_\_\_.
32. The pattern of the magnetic field around a conductor due to an electric current flowing through it depends on \_\_\_\_.
33. The magnetic field of a \_\_\_\_ carrying a current is similar to that of a bar magnet.
34. An electromagnet consists of a \_\_\_\_ wrapped around with a coil of \_\_\_\_.
35. A current-carrying conductor when placed in a magnetic field experiences a \_\_\_\_.
36. If the direction of the field and that of the current are mutually perpendicular to each other, then the force acting on the conductor will be \_\_\_\_ to both and will be given by \_\_\_\_.
37. An electric motor is a device that converts \_\_\_\_ energy into \_\_\_\_ energy.
38. The phenomenon of \_\_\_\_ is the production of induced current in a coil placed in a region where the magnetic field changes with time.
39. The magnetic field may change due to a \_\_\_\_ between the coil and a magnet placed near to the coil.
40. The direction of the induced current is given by the \_\_\_\_.
41. A generator converts \_\_\_\_ energy into \_\_\_\_ energy.
42. In our houses we receive AC electric power of \_\_\_\_ with a frequency of \_\_\_\_.
43. One of the wires in household electric supply is with red insulation called \_\_\_\_, other one is of black insulation, which is a \_\_\_\_ wire and the third wire is green called \_\_\_\_.
44. Generator works on the basis of \_\_\_\_.
45. \_\_\_\_ is the most important safety device, used for protecting the circuits due to short-circuiting or overloading of the circuits.
46. Our energy requirements increase with \_\_\_\_.
47. We look for new sources of energy because the conventional sources of energy like \_\_\_\_ are in danger of getting exhausted soon.
48. Many of the sources ultimately derive their energy from the \_\_\_\_.
49. The various components of an ecosystem are \_\_\_\_.
50. The \_\_\_\_ make the energy from sun available to the rest of the ecosystem.
51. There is a loss of energy as we go from \_\_\_\_ to the next, this limits the number of trophic levels in a \_\_\_\_.
52. Human activities have an impact on \_\_\_\_.
53. The use of chemicals like CFCs has endangered the \_\_\_\_.
54. The waste we generate may be \_\_\_\_ or \_\_\_\_.
55. The disposal of the \_\_\_\_ we generate is causing serious environmental problems.
56. We can reduce pressure on the environment by applying the maxim of '\_\_\_\_'.
57. The harnessing of water resources by building dams has \_\_\_\_, \_\_\_\_ and \_\_\_\_ implications.

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**SCIENCE QUESTION BANK – 19 (ANSWER)**

1. Accommodation
- 1(a) Age
2. Least distance of distinct vision
3. 25 cm
4. Myopia, hypermetropia, presbyopia
5. Concave lens of suitable power
- 5(a) Short-sightedness
- 5(b) Before
6. Convex lens of suitable power
- 6(a) Far-sightedness
- 6(b) beyond
7. Dispersion
8. Scattering
9. Electrons
10. Opposite
11. Ampere
12. Cell, battery
13. Potential difference
- 13(a) Volt
14. Resistance
15. Resistance
16. ohm ( $\Omega$ )
17. length, area of cross-section, material of the conductor
18. Sum
- 18(a) Sum of reciprocals of individual resistance
19.  $V \times I \times t$
20. Watt (W)
21. One
22. kilowatt hour (kWh)
23.  $3,600,000 \text{ J} = 3.6 \times 10^6 \text{ J}$
24. small magnet
25. north pole, south pole
26. magnetic
27. magnetic
28. hypothetical free north pole
29. unit north pole
- 29(a) greater or stronger
30. magnetic field
31. right-hand rule
32. shape of the conductor
33. solenoid
34. Core of soft iron, insulated copper wire
35. force
36. Perpendicular, Fleming's left-hand rule
37. electric, mechanical
38. electromagnetic induction

39. relative motion
40. Fleming's right-hand rule
41. Mechanical, Electrical
42. 220 V, 50 Hz
43. live wire, neutral, earthing
44. Electromagnetic induction
45. Fuse
46. standard for living
47. fossil fuels
48. Sun
49. interdependent
50. producers
51. one trophic level, food-chain
52. Environment
53. ozone layer
54. biodegradable, non-biodegradable
55. waste
56. Refuse, Reduce, Reuse, Repurpose and Recycle' in our lives
57. Social, economic, environmental.