# Class X – Science

# Model Question Paper

# (SET- 8)

**Time:** 3 Hours                                    **Maximum Marks:** 80

## QUESTION PAPER STRUCTURE

| Section | Type | Questions | Marks |
| --- | --- | --- | --- |
| A | MCQs | 20 | 20 |
| B | Very Short Answer | 5 | 10 |
| C | Short Answer | 6 | 18 |
| D | Long Answer | 5 | 25 |
| E | Case Based | 1 | 7 |
| **Total** | | **37** | **80** |

## SECTION A – MCQs (1×20 = 20)

1. A solution having pH value 1 is:
   A. Weak acid
   B. Strong acid
   C. Weak base
   D. Strong base

2. The image formed by a convex lens when object is placed beyond 2F is:
   A. Virtual and erect
   B. Real and inverted
   C. Virtual and inverted
   D. Same size

3. The SI unit of electric current is:
   A. Ampere

B. Volt

C. Ohm

D. Watt

4. Which hormone regulates sugar level in blood?

   A. Thyroxine

   B. Insulin

   C. Adrenaline

   D. Estrogen

5. Which metal is extracted by electrolytic reduction?

   A. Iron

   B. Copper

   C. Aluminium

   D. Zinc

6. The chemical formula of washing soda is:

   A. $NaHCO_3$

   B. $Na_2CO_3$

   C. $Na_2CO_3 \cdot 10H_2O$

   D. $CaCO_3$

7. Image formed by concave mirror for object placed between pole and focus is:

   A. Real and inverted

   B. Virtual and erect

   C. Real and erect

   D. At infinity

8. Which of the following is an insulator?

   A. Copper

   B. Aluminium

   C. Silver

   D. Plastic

9. Which part of the flower develops into seed?

   A. Ovary

   B. Ovule

   C. Anther

   D. Stigma

10. Which gas is released during photosynthesis?

    A. Oxygen

    B. Carbon dioxide

C. Nitrogen

D. Hydrogen

11. Electrical energy consumed is measured in:
    A. Watt
    B. Joule
    C. Kilowatt-hour
    D. Ampere

12. Which metal is used for making utensils due to good heat conductivity?
    A. Sodium
    B. Aluminium
    C. Lead
    D. Mercury

13. The process by which organisms release energy from food is:
    A. Digestion
    B. Respiration
    C. Transpiration
    D. Excretion

14. The power of a convex lens is:
    A. Negative
    B. Positive
    C. Zero
    D. Infinite

15. Which acid is present in tomato?
    A. Citric acid
    B. Oxalic acid
    C. Lactic acid
    D. Acetic acid

16. Which mirror is used as rear-view mirror in vehicles?
    A. Plane mirror
    B. Convex mirror
    C. Concave mirror
    D. Cylindrical mirror

17. The carriers of genetic information are:
    A. Cells
    B. Chromosomes
    C. Genes
    D. Proteins

18. Which organ helps in removal of carbon dioxide from body?
    A. Kidney
    B. Lungs
    C. Liver
    D. Heart

19. Which metal is stored in kerosene oil?
    A. Magnesium
    B. Aluminium
    C. Sodium
    D. Iron

20. Which device is used to increase or decrease current in a circuit?
    A. Fuse
    B. Rheostat
    C. Switch
    D. Ammeter

## SECTION B – Very Short Answer (2×5 = 10)

21. Define centre of curvature of a spherical mirror.

22. What is biodegradable waste? Give one example.

23. Name the hormone that controls growth in humans.

24. Write one use of washing soda.

25. Define electric potential difference.

## SECTION C – Short Answer (3×6 = 18)

26. Explain pH scale and its importance.

27. Draw ray diagram for image formation by convex lens when object is between F and 2F.

28. Define electric resistance and state its unit.

29. Write two functions of human liver.

30. What is corrosion? Name one method to prevent it.

31. Define food web.

## SECTION D – Long Answer (5×5 = 25)

32. Explain the process of digestion in human beings.

33. Derive the formula for electric power and state its SI unit.

34. Describe pollination and fertilization in flowering plants.

35. Write properties and uses of bases.

36. Explain refraction of light through prism with diagram.

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## SECTION E – Case Based Question (1×7 = 7)

37. **Case Study – Magnetic Effects of Electric Current:**
    An electric current is passed through a straight conductor placed near a compass needle. The needle gets deflected.

a) What does the deflection indicate?
b) Name the effect observed.
c) What happens to deflection if current is increased?
d) Name one application of this effect.