

Class X: Science
Model Question Paper
(SET 2)

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. The pH value of a neutral solution is:
A. 1
B. 5
C. 7
D. 9
2. Which lens always forms a virtual and erect image?
A. Convex lens
B. Concave lens
C. Cylindrical lens
D. Bifocal lens

3. The SI unit of resistance is:
 - A. Ampere
 - B. Volt
 - C. Ohm
 - D. Watt

4. Which part of the brain controls balance of the body?
 - A. Cerebrum
 - B. Cerebellum
 - C. Medulla
 - D. Spinal cord

5. The metal extracted by electrolytic reduction is:
 - A. Iron
 - B. Copper
 - C. Aluminium
 - D. Zinc

6. The chemical formula of baking soda is:
 - A. Na_2CO_3
 - B. NaHCO_3
 - C. NaCl
 - D. CaCO_3

7. The image formed by a convex mirror is always:
 - A. Real and inverted
 - B. Virtual and erect
 - C. Real and erect
 - D. Virtual and inverted

8. Which of the following is an insulator?
 - A. Iron
 - B. Aluminium
 - C. Silver
 - D. Rubber

9. Transfer of characters from parents to offspring is called:
 - A. Evolution
 - B. Reproduction
 - C. Heredity
 - D. Adaptation

10. Which gas is essential for combustion?
 - A. Nitrogen

- B. Oxygen
- C. Carbon dioxide
- D. Hydrogen

11. The functional unit of nervous system is:

- A. Brain
- B. Nerve
- C. Neuron
- D. Spinal cord

12. Which metal is liquid at room temperature?

- A. Sodium
- B. Mercury
- C. Iron
- D. Aluminium

13. Which process releases energy in cells?

- A. Photosynthesis
- B. Respiration
- C. Transpiration
- D. Excretion

14. Unit of electric power is:

- A. Joule
- B. Volt
- C. Ampere
- D. Watt

15. Which acid is present in lemon?

- A. Acetic acid
- B. Lactic acid
- C. Citric acid
- D. Hydrochloric acid

16. Which mirror is used as rear-view mirror?

- A. Plane
- B. Concave
- C. Convex
- D. Parabolic

17. The green pigment in plants is:

- A. Xanthophyll
- B. Carotene

- C. Chlorophyll
 - D. Anthocyanin
18. The process of removing waste from body is:
- A. Respiration
 - B. Excretion
 - C. Digestion
 - D. Circulation
19. Which metal is most reactive?
- A. Copper
 - B. Iron
 - C. Zinc
 - D. Potassium
20. Which component is used to break circuit?
- A. Cell
 - B. Switch
 - C. Bulb
 - D. Wire
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SECTION B – Very Short Answer (2×5 = 10)

- 21. Define principal focus of a lens.
 - 22. What is meant by non-biodegradable waste?
 - 23. Name the hormone secreted by thyroid gland.
 - 24. Write one use of baking soda.
 - 25. Define electric current.
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SECTION C – Short Answer (3×6 = 18)

- 26. Explain the process of rusting of iron.
- 27. Draw a ray diagram for image formation by concave mirror when object is at infinity.
- 28. Define resistance. Write its SI unit.
- 29. State two differences between arteries and veins.
- 30. What is corrosion? How can it be prevented?

31. Define ecosystem. Name its components.

SECTION D – Long Answer (5×5 = 25)

32. Explain the process of photosynthesis with a neat diagram.

33. State and explain Ohm's Law with graph.

34. Describe the structure and function of human heart.

35. Write five properties of bases with examples.

36. Explain the laws of reflection of light with diagram.

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

37. Case Study – Electricity:

A student connected a resistor, ammeter and voltmeter in a circuit. He observed that when voltage was increased, the current also increased proportionally.

- Name the law verified by this experiment.
 - Which graph is obtained between V and I?
 - What does slope of V-I graph represent?
 - Write one factor affecting resistance.
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