

**Class X – Science**  
**Model Question Paper**  
**(SET-5)**

**Time:** 3 Hours

**Maximum Marks:** 80

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**QUESTION PAPER STRUCTURE**

<b>Section Type</b>		<b>Questions Marks</b>	
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
<b>Total</b>		<b>37</b>	<b>80</b>

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**SECTION A – MCQs (1×20 = 20)**

1. A solution turns blue litmus red. The solution is:
  - A. Neutral
  - B. Basic
  - C. Acidic
  - D. Salt
2. The image formed by a plane mirror is:
  - A. Real and inverted
  - B. Virtual and erect
  - C. Real and erect
  - D. Virtual and inverted

3. SI unit of potential difference is:
  - A. Ampere
  - B. Volt
  - C. Ohm
  - D. Watt
4. Which gland secretes insulin?
  - A. Thyroid
  - B. Pituitary
  - C. Pancreas
  - D. Adrenal
5. Which metal is most suitable for making cooking utensils?
  - A. Sodium
  - B. Iron
  - C. Aluminium
  - D. Mercury
6. Washing soda is chemically known as:
  - A. Sodium chloride
  - B. Sodium bicarbonate
  - C. Sodium carbonate
  - D. Calcium carbonate
7. A concave mirror forms virtual image when object is placed:
  - A. At focus
  - B. Beyond C
  - C. Between F and pole
  - D. At infinity
8. Which is a good conductor of electricity?
  - A. Wood
  - B. Plastic
  - C. Copper
  - D. Rubber
9. The part of flower that develops into fruit is:
  - A. Ovule
  - B. Ovary
  - C. Anther
  - D. Stigma
10. Which gas is released during respiration?
  - A. Oxygen

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

11. Electrical energy is measured in:

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

12. Which metal is protected from rusting by galvanization?

- A. Copper
- B. Aluminium
- C. Iron
- D. Silver

13. Which process converts glucose into energy?

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

14. Power of convex lens is:

- A. Always negative
- B. Always positive
- C. Zero
- D. Infinite

15. Which acid is present in vinegar?

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

16. Which mirror is used in street light reflectors?

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

17. The basic unit of heredity is:

- A. Cell
- B. Chromosome

- C. Gene
  - D. Nucleus
18. Removal of solid waste from environment is part of:
- A. Ecosystem
  - B. Pollution
  - C. Waste management
  - D. Conservation
19. Which metal does not react with water?
- A. Sodium
  - B. Calcium
  - C. Iron
  - D. Copper
20. Which device measures electric potential difference?
- A. Ammeter
  - B. Voltmeter
  - C. Galvanometer
  - D. Fuse
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### **SECTION B – Very Short Answer (2×5 = 10)**

- 21. Define pole of a spherical mirror.
  - 22. What is biodegradable waste? Give one example.
  - 23. Name the hormone that regulates growth in humans.
  - 24. Write one use of sodium carbonate.
  - 25. Define electric power.
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### **SECTION C – Short Answer (3×6 = 18)**

- 26. Explain neutralization reaction with an example.
- 27. Draw ray diagram for image formation by convex mirror.
- 28. Define electric current and write its SI unit.
- 29. Write two differences between inhalation and exhalation.
- 30. What is reactivity series of metals?
- 31. Define ecosystem and name its types.

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**SECTION D – Long Answer (5×5 = 25)**

32. Explain the process of respiration in human beings.
33. State and derive the formula for electric power.
34. Describe pollination and fertilization in plants.
35. Write properties and uses of metals.
36. Explain scattering of light and why sky appears blue.

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**SECTION E – Case Based Question (1×7 = 7)****37. Case Study – Life Processes:**

A student observed that during physical exercise breathing rate increases and more oxygen is supplied to muscles.

- a) Name the process responsible for release of energy.
  - b) Which gas is taken in during this process?
  - c) Why breathing rate increases during exercise?
  - d) Name the respiratory pigment in human blood.
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