Science — real board questions: practice sheet

Every question is from a past CBSE board paper; the year is shown with each.

Section A: 20 MCQs × 1 mark | Section B: 9 questions | Answer key: last page

Section A — Multiple-choice questions

1. When a human egg is fertilized by a sperm having 'Y' chromosome, the zygote has the following combination of chromosomes : **[CBSE 2026]**

(A) 44 + XX (B) 22 + XX (C) 44 + XY (D) 22 + XY

2. In the following equation x KI + H_2O_2 → I_2 + y KOH x and y respectively are : **[CBSE 2026]**

(A) 2, 2 (B) 1, 2 (C) 2, 1 (D) 1, 1

3. Tamarind is a natural source of which acid ? **[CBSE 2026]**

(A) Acetic acid (B) Tartaric acid
(C) Oxalic acid (D) Citric acid

4. Which of the following is an amphoteric oxide ? **[CBSE 2026]**

(A) Na_2O (B) K_2O (C) CO_2 (D) Al_2O_3

5. The formula of functional group for aldehyde is : **[CBSE 2026]**

(A) -COOH (B) -CHO (C) -C=O (D) -OH

6. Which structure in a leaf is mainly responsible for gaseous exchange ? **[CBSE 2026]**

(A) Xylem (B) Stomata (C) Phloem (D) Cuticle

7. Identify the endocrine gland that regulates the growth of the human body. **[CBSE 2026]**

(A) Pituitary gland (B) Thyroid gland
(C) Pancreas (D) Adrenal gland

8. In a bisexual flower the male gametes are present in the : **[CBSE 2025]**

(A) anther (B) ovary (C) stigma (D) filament

9. To get an image of magnification -1 on a screen using a lens of focal length 20 cm, the object distance must be : **[CBSE 2025]**

(A) Less than 20 cm (B) 30 cm
(C) 40 cm (D) 80 cm

10. To restore clear vision in persons whose size of the eye ball has reduced, he/she is suggested to use suitable **[CBSE 2026]**

(A) Converging lens (B) Diverging lens
(C) Bifocal lens (D) Cylindrical lens

11. An electric bulb is rated 220 V; 11W. The resistance of its filament when it glows with a power supply of 220 V is : **[CBSE 2025]**

(A) 4400 (B) 440 ohm (C) 400 ohm (D) 20 ohm ohm

12. The strength of magnetic field produced inside a long straight current carrying solenoid does not depend upon : **[CBSE 2025]**

(A) number of turns in the solenoid
(B) direction of current flowing through the solenoid
(C) material of the core filled inside the solenoid
(D) radius of the coil of the solenoid

13. Organisms of a higher trophic level which feed on several types of organisms belonging to a lower trophic level form the : **[CBSE 2026]**

(A) Food web (B) Ecosystem
(C) Ecological pyramid (D) Food chain

14. When a pure-tall pea plant is crossed with a pure-dwarf pea plant, the percentage of tall pea plants in F_1 and F_2 generation pea plants will be respectively : **[CBSE 2025]**

(A) 100% ; 25% (B) 100% ; 50%
(C) 100% ; 75% (D) 100% ; 100%

15. The gases evolved on heating lead (II) nitrate crystals are : **[CBSE 2026]**

(A) NO and O_2 (B) N_2 and NO_2
(C) NO_2 and H_2 (D) NO_2 and O_2

16. Rain water is called 'acid rain' when its : **[CBSE 2026]**

(A) pH falls below 7.2. (B) pH falls below 14.
(C) pH is above 7. (D) pH falls below 5.6.

17. Which of the following is a poor conductor of electricity ? **[CBSE 2026]**

(A) Pb (B) Cu (C) Ag (D) Al

18. Which of the following compounds will undergo addition reaction ? **[CBSE 2026]**

(A) C_4H_{10} (B) C_4H_8 (C) C_3H_8 (D) CH_4

Model answers to Section B, mark by mark — with Medha Ma'am on AskMedha: askmedha.com/cbse

Questions from the chapter pages on askmedha.com, taken from CBSE's real papers. Key as per the board.

Science — real board questions: practice sheet (continued)

Section A — Multiple-choice questions

19. In human beings the oxygen rich blood is pumped out to the body by : **[CBSE 2026]**

(A) contraction of right atrium
(B) relaxation of left ventricle
(C) contraction of right ventricle
(D) contraction of left ventricle

20. In plants, the role of cytokinin is to/in : **[CBSE 2026]**

(A) promote cell division
(B) wilting of leaves
(C) promote opening of stomatal pore
(D) growth of stem

Science

Section B — Important questions (answer in your notebook)

21. (i) Chlorofluorocarbons (CFCs) have been linked to depletion of ozone layer. In 1987, the United Nations Environment Programme (UNEP) succeeded in making an agreement. State this agreement. (ii) What is the role of ozone in our atmosphere ? **[2026 · 2 marks]**

22. (a) A couple are parents to 4 daughters in a sequence, and do not have any son. Does this indicate that the husband does not produced Y-chromosome bearing sperms ? Explain. (b) What are the chances of this couple bearing yet another daughter ? Show with the help of a cross. **[2026 · 3 marks]**

23. Translate the following statements into chemical equation and then balance them : (a) Water is added to quicklime (b) Burning of natural gas (c) Thermal decomposition of ferrous sulphate **[2026 · 3 marks]**

24. (a) Explain chlor-alkali process with chemical equation. Name the products formed at anode and cathode. OR (b) Write the preparation of following compounds with balanced chemical equation : (i) Baking soda (ii) Bleaching powder (iii) Plaster of Paris **[2026 · 3 marks]**

25. Answer the following : (a) Why can the oxides of highly reactive metals not be reduced by carbon ? (b) Why do ionic compounds have high melting and boiling points ? (c) Why is a solder, an alloy of lead and tin, used for welding electrical wires together ? **[2026 · 3 marks]**

26. In xylem tissue, vessels and tracheids of the roots, stems and leaves are interconnected to form a continuous system of water-conducting channels reaching all parts of the plant. Explain how this is achieved. **[2026 · 3 marks]**

27. Give reasons for the following : (a) Adrenal gland is known as the stress gland of the body. (b) Prenatal sex determination is banned in India. (c) Vegetative propagation is advantageous in some plants. **[2026 · 3 marks]**

28. If we want to obtain a virtual and magnified image of an object by using a concave mirror of focal length 18 cm, where should the object be placed? Use mirror formula to determine the object distance for an image of magnification +2 produced by this mirror to justify your answer. **[2025 · 3 marks]**

29. (a) What is Tyndall effect? (b) What happens when sunlight is scattered from the particles of very large size? (c) 'Danger' signals are always red in colour. Why? **[2026 · 3 marks]**

Science — Answer key — Section A

Teachers: for checking after a class test. Students: solve first, then compare.

1. **C**	2. **A**	3. **B**	4. **D**	5. **B**	6. **B**	7. **A**	8. **A**	9. **C**	10. **A**
11. **A**	12. **D**	13. **A**	14. **C**	15. **D**	16. **D**	17. **A**	18. **B**	19. **D**	20. **A**

Score: 1 mark per correct answer. Got one wrong? Go back to that chapter before ticking "Practised" on your tracker. Section B model answers — on AskMedha, with Medha Ma'am.

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