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UP BOARD • PREVIOUS 10 YEARS' QUESTION PAPERS

Class 10 (High School) Science

All ten years in one book — every paper in full, questions only, as printed in the original papers.

Class 10 (High School)
Subject: Science
Years covered: 2017–2026 | Papers inside: 6 of 10 years
Maximum marks: 70

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Rebuilt in KAMALDNP design for practice. Content identical to the source papers; see Rebuild Notes at the end of each paper. Years not yet found are listed plainly in the Contents — no paper is ever faked.

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Contents

One paper per year, newest first. A year marked “Not found yet” means no complete, verified copy of that year’s paper has been found so far — it will be added when one is verified. 2021 had no board exams.

Year	Set / Code	Exam held	Marks	Page
2026	824 GL	25 February 2026	70	3
2025	824 CN	date not stated in source	70	8
2024	824 IP	29 February 2024	70	12
2023	824 EK	27 February 2023	70	16
2022	824 BJ	date not stated in source	70	21
2021	—	No board exams were held (COVID-19)	—	—
2020	824 (set unverified)	date not stated in source	70	25
2019	—	Not found yet	—	—
2018	—	Not found yet	—	—
2017	—	Not found yet	—	—

Source: third-party transcriptions of the original UP Board papers (no official UP Board previous-year archive exists). English text only; the originals are bilingual (Hindi + English).

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UP BOARD • CLASS 10 (HIGH SCHOOL)

Class 10 Science 2026

Set 824 GL — 3 hours 15 minutes — Maximum Marks: 70

Exam: 25 February 2026, 8:30 AM – 11:45 AM | Time allowed: 3 hours 15 minutes | Maximum marks: 70 | Total questions: 31

General Instructions

1. First 15 minutes are allotted for the candidates to read the question paper.
2. All questions are compulsory.
3. This question paper is divided into two parts, A and B.
4. Part A and Part B are divided into three sub-sections I, II and III.
5. All multiple choice questions of Part A are to be answered on the OMR answer sheet.
6. Marks allotted to each question are given against it.
7. Each multiple choice question of Part A carries 1 mark.
8. Part B contains descriptive type questions.
9. All questions of each sub-section of Part B are to be attempted together at one place. Each sub-section should be started from a new page.

Part A

Multiple Choice Questions — 1 mark each (to be answered on the OMR answer sheet)

Q. 1 In a triangular prism, the colour of light having maximum deviation is: **[1 mark]**

(A) Yellow (B) Green (C) Violet (D) Red

Q. 2 To obtain a virtual, erect and magnified image of an object by a convex lens, the object should be placed: **[1 mark]**

(A) Between the focus and the optical centre (B) At the focus
(C) Between the centre of curvature and the focus (D) Beyond the centre of curvature

Q. 3 The twinkling of stars is due to: **[1 mark]**

(A) Atmospheric refraction (B) Scattering of light
(C) Total internal reflection (D) None of these

Q. 4 In which of the following media is the speed of light the least? **[1 mark]**

(A) Glass (B) Diamond
(C) Turpentine oil (D) Water

Q. 5 The electrical resistivity of a conductor depends on: **[1 mark]**

(A) Length of the conductor (B) Thickness of the conductor
(C) Temperature of the conductor (D) All of these

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Q. 6 When the terminals of a battery are short-circuited, the current flowing through the circuit will be: **[1 mark]**

(A) Zero
(B) Maximum
(C) Minimum
(D) None of these

Q. 7 The work done in carrying a charge of 3 coulomb from one point to another point of 12 volt potential difference will be: **[1 mark]**

(A) 36 Joule (B) 12 Joule (C) 4 Joule (D) 0.25 Joule

Q. 8 The pH value of rain water is: **[1 mark]**

(A) More than 8.2
(B) 7.0
(C) 7.56
(D) Less than 5.6

Q. 9 When lead reacts with copper chloride solution, the products formed are copper and: **[1 mark]**

(A) Chlorine gas
(B) Copper
(C) Lead chloride ($PbCl_2$)
(D) Copper chloride

Q. 10 Which of the following is a saturated organic compound? **[1 mark]**

(A) C_6H_6 (B) C_6H_{14} (C) C_5H_{10} (D) C_3H_4

Q. 11 The chemical formula of Plaster of Paris is: **[1 mark]**

(A) $CaSO_4$ (B) $CaSO_4 \cdot \frac{1}{2}H_2O$ (C) $CaSO_4 \cdot H_2O$ (D) $CaSO_4 \cdot 2H_2O$

Q. 12 Which of the following metals displaces hydrogen from dilute acids? **[1 mark]**

(A) Copper (B) Silver (C) Gold (D) Zinc

Q. 13 The functional group of a ketone is: **[1 mark]**

(A) –C–O–C– (B) –OH (C) >C=O (D) –CHO

Q. 14 Sphygmomanometer is used to measure: **[1 mark]**

(A) Body temperature
(B) Blood pressure
(C) Quantity of blood
(D) Respiratory rate

Q. 15 ATP molecule is formed during: **[1 mark]**

(A) Photosynthesis
(B) Respiration
(C) Protein synthesis
(D) Decomposition

Q. 16 The alimentary canal of man begins from: **[1 mark]**

(A) Stomach (B) Pharynx (C) Mouth (D) Oesophagus

Q. 17 The chemical formula of an ozone molecule is: **[1 mark]**

(A) O (B) O_2 (C) O_3 (D) O_4

Q. 18 In a plant, xylem is responsible for: **[1 mark]**

(A) Transport of water
(B) Transport of food
(C) Transport of amino acid
(D) Transport of oxygen

Q. 19 The deficiency of which of the following causes goitre? **[1 mark]**

(A) Iron (B) Calcium (C) Iodine (D) Vitamin

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Q. 20 In human beings, urine is stored in: **[1 mark]**

(A) Kidney (B) Ureter
(C) Urinary bladder (D) Liver

Part B

Descriptive Questions — Sub-section I: Physics (Q. 1–4), Sub-section II: Chemistry (Q. 5–7), Sub-section III: Biology (Q. 8–11)

Q. 1(i) Draw a ray diagram for the formation of the image of an object by a convex mirror. **[2 marks]**

Q. 1(ii) The power of a convex lens is 2 dioptre. Find its focal length in metre. **[2 marks]**

Q. 2(i) What is the defect of farsightedness? What are the reasons for the development of this defect? **[2 marks]**

Q. 2(ii) What is scattering of light? Give any two examples of it. **[2 marks]**

Q. 3(i) A wire of resistance R, length l and diameter d is given. Find the formula for the electrical resistivity of the material of the wire. **[2 marks]**

Q. 3(ii) Find the total resistance of the given combination of resistors across the points A and B. **[2 marks]**

> **Figure:** Circuit diagram: two 2 Ω resistors in parallel, in series with three 3 Ω resistors in parallel, connected across points A and B. (Diagram not reproduced.)

Q. 4(i) Show the magnetic field lines around a straight current-carrying conducting wire with the help of a diagram. **[4 marks]**

> **Figure:** Diagram to be drawn. (Diagram not reproduced.)

Q. 4(ii) What is the importance of the earthing wire in a domestic electric circuit? **[2 marks]**

— OR —

OR: (i) Describe with the help of a diagram the magnetic field produced due to electric current flowing in a solenoid. (2 marks) (ii) Electric current is flowing in a horizontal transmission line from west to east. What will be the direction of the magnetic field at a point just above and just below the line? Which law is used to find the direction of the magnetic field? (4 marks)

Q. 5(i) Explain any two properties of metals. **[2 marks]**

Q. 5(ii) Explain the combustion reaction in organic compounds by giving one example. **[2 marks]**

Q. 6(i) Explain oxidation and reduction reactions by giving one example. **[2 marks]**

Q. 6(ii) Write the method of preparation of bleaching powder and the related chemical reaction. **[2 marks]**

Q. 7(i) Write a short note on corrosion. **[2 marks]**

Q. 7(ii) Write a short note on soap and detergent. **[2 marks]**

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Q. 7(iii) Write a short note on homologous series. **[2 marks]**

— OR —

OR: Write the balanced chemical equation on the basis of the following: (i) ___ + H_2O → Fe_3O_4 + H_2 (ii) $CO_2(aq)$ + ___ —Sunlight→ $C_6H_{12}O_6(aq)$ + $O_2(aq)$ + … (iii) ___(aq) + $CO_2(aq)$ → $CaCO_3(s)$ + $H_2O(l)$ (iv) $C_6H_{12}O_6(aq)$ + …(aq) → $CO_2(aq)$ + $H_2O(l)$ + … (v) $FeSO_4(s)$ —Heat→ $Fe_2O_3(s)$ + … + … (vi) $AgCl(s)$ —Sunlight→ $Ag(s)$ + … (1 mark each)

Q. 8 Draw the structure of a nerve cell (neuron) and describe its function. (2 + 2) **[4 marks]**

> **Figure:** Diagram to be drawn. (Diagram not reproduced.)

Q. 9(i) Write a short note on consumers. **[2 marks]**

Q. 9(ii) Write a short note on decomposers. **[2 marks]**

Q. 10 Describe with the help of a diagram the process of sex determination in humans. (2 + 2) **[4 marks]**

> **Figure:** Diagram to be drawn. (Diagram not reproduced.)

Q. 11 Describe the structure of the human heart with the help of a suitable diagram. (3 + 3) **[6 marks]**

> **Figure:** Diagram to be drawn. (Diagram not reproduced.)

— OR —

OR: Write short notes on: (i) Blood vessels (ii) Blood pressure (iii) Water transport in plants. (2 marks each)

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Rebuild Notes

This paper was rebuilt in KAMALDNP design from a third-party transcription of the original UP Board paper. Questions, order and marks are as printed in the source; answers and solutions are not included. Where the transcription was unclear or contradicted the Hindi original, the point is flagged below.

1. Source is the actual printed 2026 paper (JagranJosh image-only scan, 8 pages), read visually page by page; the JagranJosh article text of Q1–Q10 matches the scan exactly and was used as a cross-check.
2. Q9: the scan renders the product as “PbCuCl”; corrected to $PbCl_2$ (lead chloride) per the JagranJosh article text of the same question.
3. Q13: the ketone options are structural diagrams in the printed paper; they are rendered here as text (–C–O–C– / –OH / >C=O / –CHO).
4. Q3(ii) (Part B): the resistor combination is a figure in the printed paper; a figure note is printed instead.
5. Part B marks are as printed in the scan (Physics 4+4+4+6 = 18, Chemistry 4+4+6 = 14, Biology 4+4+4+6 = 18).
6. Exam date and time (25 February 2026, 8:30 AM – 11:45 AM) are from the JagranJosh article.

Source (third-party transcription): https://img.jagranjosh.com/images/2026/02/25/template/image/up-board-class-10th-science-question-paper-2026-1772006677357.pdf

Cross-checked against: https://www.jagranjosh.com/articles/up-board-class-10th-science-question-paper-2026-download-question-paper-with-answer-key-1800009086-1

English text only. The original paper is bilingual (Hindi + English); a Hindi side is a follow-up round, not this one. No official UP Board previous-year archive exists, so every paper in this volume is third-party-source.

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UP BOARD • CLASS 10 (HIGH SCHOOL)

Class 10 Science 2025

Set 824 CN — 3 hours — Maximum Marks: 70

Time allowed: 3 hours | Maximum marks: 70 | Total questions: 31

General Instructions

1. All questions are compulsory. Marks allotted to each question are given in the margin.
2. In numerical questions, give all the steps of calculation.
3. Give relevant answers to the questions.
4. Give chemical equations, wherever necessary.

Section A

Multiple Choice Questions — 1 mark each

Q. 1 A thin straight rod is placed in between the focus and optical centre of a convex lens. The image of the rod is: **[1 mark]**

(A) Virtual, erect and diminished
(B) Virtual, erect and magnified
(C) Real, inverted and magnified
(D) Real, inverted and diminished

Q. 2 The focal length of a concave mirror is 10 cm. The radius of curvature of the mirror is: **[1 mark]**

(A) 20 cm (B) 40 cm (C) 5 cm (D) 10 cm

Q. 3 The refraction of light through a prism is as shown in the figure. The angle of deviation should be: **[1 mark]**

> **Figure:** Diagram of refraction of light through a prism, with angles marked α, β, γ, δ. (Diagram not reproduced.)

(A) α (B) β (C) γ (D) δ

Q. 4 The reason for the phenomenon of twinkling of stars is: **[1 mark]**

(A) Atmospheric refraction
(B) Atmospheric reflection
(C) Scattering of light
(D) None of these

Q. 5 Names of some components used in electrical circuits are given in Column-X. Match with the diagrams given in Column-Y and choose the correct alternative: **[1 mark]**
Column-X: 1. Voltmeter 2. Resistance 3. Closed plug key 4. Electric cell

> **Figure:** Column-Y diagrams (i)–(iv): circuit symbols. (Diagrams not reproduced.)

(A) 1 (iv), 2 (ii), 3 (i), 4 (iii)
(B) 1 (iii), 2 (i), 3 (ii), 4 (iv)
(C) 1 (ii), 2 (i), 3 (iii), 4 (iv)
(D) 1 (iii), 2 (i), 3 (iv), 4 (ii)

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Q. 6 Resistance of a wire is 2 ohms. The length of another wire of the same material is twice the length and half of the diameter of the first wire, then the resistance of the other wire will be: **[1 mark]**

(A) 8 Ω (B) 16 Ω (C) 32 Ω (D) 4 Ω

Q. 7 The rule used for the direction of induced current produced due to the rotation of a coil in a magnetic field is: **[1 mark]**

(A) Fleming's right hand rule (B) Fleming's left hand rule
(C) Right hand thumb rule (D) None of these

Q. 8 The IUPAC name of CH_3COOH is: **[1 mark]**

(A) Acetic acid (B) Ethanoic acid
(C) Propionic acid (D) Propanol-1

Q. 9 Which of the following is the formula of Alkene? **[1 mark]**

(A) $CH_3CH_2CH_3$ (B) $CH_3CH_2CH_2$ (C) $CH_3CH = CH_2$ (D) $CH_3C = CH$

Q. 10 The pH value of a completely neutral solution is: **[1 mark]**

(A) 0 (B) 1 (C) 7 (D) 10

Q. 11 The common name of $Na_2CO_3 \cdot 10H_2O$ is: **[1 mark]**

(A) Bleaching powder (B) Washing soda
(C) Baking soda (D) Plaster of Paris

Q. 12 The example of combination reaction is: **[1 mark]**

(A) Burning of carbon in air (B) The reaction of zinc with sulfuric acid
(C) The reaction of calcium carbonate with hydrochloric acid (D) Reaction of glucose with oxygen

Q. 13 Which of the following is an alkali metal? **[1 mark]**

(A) Ca (B) K (C) Ag (D) Al

Q. 14 The kidneys in human beings are part of the system which is related with: **[1 mark]**

(A) Nutrition (B) Respiration
(C) Excretion (D) Transportation

Q. 15 The brain is responsible for: **[1 mark]**

(A) Thinking (B) Regulating the heartbeat
(C) Balancing the body (D) All of these

Q. 16 The final product of Glycolysis is: **[1 mark]**

(A) Protein (B) Pyruvate (C) Phosphate (D) Fructose

Q. 17 The stamen contains: **[1 mark]**

(A) Anther (B) Filament
(C) Both (A) and (B) (D) None of these

Q. 18 Mendel got his primary education from: **[1 mark]**

(A) Church (B) Primary school
(C) Temple (D) Home

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Q. 19 According to Mendel, the genotype of a pure dwarf pea plant is: **[1 mark]**

(A) TT (B) Tt (C) tt (D) tT

Q. 20 Which of the following is a top carnivore? **[1 mark]**

(A) Deer (B) Tiger (C) Frog (D) Snake

Section B

Short Answer Questions

Q. 1(i) How is the defect of near-sightedness (myopia) corrected? **[2 marks]**

Q. 1(ii) The power of a lens is −2D (Dioptre). What is the focal length and nature of the lens? **[2 marks]**

Q. 2(i) Speed of light in vacuum is 3×10^8 m/s. Find out the speed of light in diamond. The absolute refractive index of diamond is 2.42. **[2 marks]**

Q. 2(ii) Show the position of the image of an object formed by a concave lens by drawing a neat ray diagram. **[2 marks]**

> **Figure:** Ray diagram to be drawn. (Diagram not reproduced.)

Q. 3(i) How much work is done in carrying a charge of 3 coulomb between two points of 3 volt potential difference? **[2 marks]**

Q. 3(ii) Write the formula for the equivalent resistance of the combination of resistances in series and draw the diagram. **[2 marks]**

Q. 4(i) Draw a labelled schematic diagram of a general domestic electrical circuit. **[4 marks]**

> **Figure:** Schematic diagram to be drawn. (Diagram not reproduced.)

Q. 4(ii) What is the phenomenon of electromagnetic induction? **[2 marks]**

— OR —

OR: (i) What is meant by magnetic field lines? Mention any two of their properties. (2 marks) (ii) Draw a diagram showing the magnetic field produced by a current-carrying solenoid. (4 marks)

Q. 5(i) Explain oxidation and displacement reactions by taking the example of organic compounds. **[2 marks]**

Q. 5(ii) Write chemical equation of one method of preparation of each Bleaching powder and Baking soda. **[2 marks]**

Q. 6(i) Explain activity series and write two applications in our daily life. **[2 marks]**

Q. 6(ii) Explain the IUPAC system of nomenclature of Aldehyde and Ketone. **[2 marks]**

Q. 7(i) Explain the versatile nature of carbon by citing examples. **[2 marks]**

Q. 7(ii) Write two methods for preventing corrosion. **[2 marks]**

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Q. 7(iii) Write the name and formula of ore of mercury and also write chemical equation for obtaining mercury from it. **[2 marks]**

— OR —

OR: (i) Explain homologous series by giving examples of Alcohol and Aldehyde. (ii) What is Micelle? Write its application in daily life. (iii) Write the properties of metals and non-metals.

Q. 8 Write short notes on any two: (i) Non-biodegradable material (ii) Trophic level (iii) Managing the garbage **[4 marks]**

Q. 9 Write short notes on any two: (i) Bryophyllum (ii) Spore formation (iii) Seed **[4 marks]**

Q. 10(i) Write short notes on the following: (i) Lymph **[2 marks]**

Q. 10(ii) (ii) Stimulus in plants **[2 marks]**

Q. 11 Describe the reflex action in humans with diagram. **[6 marks]**

> **Figure:** Diagram to be drawn. (Diagram not reproduced.)

— OR —

OR: Write an explanatory note on chemical co-ordination in animals.

Rebuild Notes

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1. Q3 (prism diagram) and Q5 (Column-Y symbols) refer to diagrams that were images in the source; the diagrams are not reproduced — a figure note is printed instead.
2. Q4 carries an OR alternative with the marks swapped ((i) 2 marks, (ii) 4 marks) against the main question ((i) 4 marks, (ii) 2 marks) — reproduced as printed.
3. Section B marks are as given in the Hindi original (PYQ Vault): B1–B3, B5, B6, B10 are 2 marks each part; B4(i) 4 + (ii) 2; B7 (i)–(iii) 2 each; B8 and B9 any two of three at 2 marks each; B11 6 marks.
4. Exam date: the source PDF does not state the 2025 Science exam date, so no date is printed on the paper.

Source (third-party transcription): https://image-static.collegedunia.com/public/image/UP_Board_Class_10_Science_824_CN_2025_7fadc6e6991debb8a2a033dd062162fa.pdf

Cross-checked against: https://www.pyqvault.com/question-papers/up-board-10/science/2025-824-cn

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UP BOARD • CLASS 10 (HIGH SCHOOL)

Class 10 Science 2024

Set 824 IP — 3 hours 15 minutes — Maximum Marks: 70

Exam: 29 February 2024 | Time allowed: 3 hours 15 minutes | Maximum marks: 70 | Total questions: 31

General Instructions

1. All questions are compulsory. Marks allotted to each question are given in the margin.
2. In numerical questions, give all the steps of calculation.
3. Give relevant answers to the questions.
4. Give chemical equations, wherever necessary.

Section A

Multiple Choice Questions — 1 mark each

Q. 1 From which lens the image of object formed is virtual, erect and smaller than the object? **[1 mark]**

(A) Concave lens
(B) Convex lens
(C) Plane lens
(D) None of these

Q. 2 In a spherical mirror the distance between its centre of curvature and pole is 20 cm. What is the distance of focus from the pole of the mirror? **[1 mark]**

(A) 5 cm
(B) 10 cm
(C) 15 cm
(D) 20 cm

Q. 3 Due to which phenomenon of light does the sky appear blue? **[1 mark]**

(A) Reflection
(B) Refraction
(C) Dispersion
(D) Scattering

Q. 4 The power of a lens is +2 dioptre. What will be its focal length in cm? **[1 mark]**

(A) +50
(B) −50
(C) +25
(D) −25

Q. 5 In which of the following wires of domestic electric distribution is the fuse wire connected in series? **[1 mark]**

(A) Earth-connected wire
(B) Neutral wire
(C) Live wire
(D) None of these

Q. 6 If the units of power, work, and time are represented by x_1, x_2, x_3 respectively, then which of the following relations is correct? **[1 mark]**

(A) $x_1 \times x_2 = x_3$
(B) $x_1 \times x_3 = x_2$
(C) $x_2 \times x_3 = x_1$
(D) $x_1 \times x_2 \times x_3 = 1$

Q. 7 In a conductor, 10 ampere of current is flowing. What will be the amount of charge flowing in 2 seconds corresponding to it? **[1 mark]**

(A) 10 coulomb
(B) 5 coulomb
(C) 20 coulomb
(D) 25 coulomb

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Q. 8 The formula of plaster of Paris is — **[1 mark]**

(A) $CaSO_4 \cdot \frac{1}{2}H_2O$ (B) $CaSO_4 \cdot 2H_2O$ (C) $CaSO_4 \cdot H_2O$ (D) $CaSO_4 \cdot 5H_2O$

Q. 9 The solution with pH 8.5 is — **[1 mark]**

(A) Alkaline (B) Acidic
(C) Neutral (D) None of these

Q. 10 IUPAC name of $CH_3–CH(CH_3)–CHO$ is — **[1 mark]**

(A) Butanal (B) Butanol
(C) 2-Methyl propanal (D) 2-Methyl propanol

Q. 11 The element having 7 electrons in its outermost orbit is — **[1 mark]**

(A) Non-metal (B) Metal (C) Metalloid (D) Inert gas

Q. 12 Chemical formula of calcium nitrate is — **[1 mark]**

(A) $CaNO_3$ (B) $Ca(NO_3)_2$ (C) Ca_3NO_3 (D) Ca_2NO_3

Q. 13 An unsaturated hydrocarbon in the following is — **[1 mark]**

(A) C_2H_2 (B) CH_4 (C) C_2H_6 (D) C_3H_8

Q. 14 Blood pressure is measured by — **[1 mark]**

(A) Sphygmomanometer (B) Stethoscope
(C) Microscope (D) Micrometer

Q. 15 Which of the following is a plant hormone? **[1 mark]**

(A) Thyroxin (B) Insulin (C) Cytokinin (D) Oestrogen

Q. 16 Unisexual flower is — **[1 mark]**

(A) Hibiscus (B) Papaya (C) Mustard (D) Rose

Q. 17 Example of regeneration is — **[1 mark]**

(A) Hydra (B) Bryophyllum (C) Amoeba (D) Planaria

Q. 18 Depletion of ozone layer is caused by which of the following? **[1 mark]**

(A) Oxygen (B) Vapour
(C) Sulphur dioxide (D) Chlorofluorocarbon

Q. 19 Natural ecosystem is — **[1 mark]**

(A) Flower pots (B) Aquarium (C) Farm (D) Forest

Q. 20 Producer in a food chain is — **[1 mark]**

(A) Rat (B) Cat
(C) Rabbit (D) Green plant and blue-green algae

Section B

Descriptive Questions — Sub-section I: Physics (Q. 1–4), Sub-section II: Chemistry (Q. 5–7), Sub-section III: Biology (Q. 8–11)

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Q. 1 What are the defects of vision? Write down the names of the lenses used for the correction of vision defect of three persons P, Q, and R if — (i) P can see only near objects clearly but cannot see far objects. (ii) Q can see only far objects clearly but cannot see near objects. (iii) R can neither see far objects nor near objects clearly. **[4 marks]**

Q. 2 The speeds of light in water and glass are respectively 2.25×10^8 m/s and 2.0×10^8 m/s. Calculate the following refractive indices: (i) The glass relative to water. (ii) The glass relative to air. **[4 marks]**

Q. 3 The resistance of a conductor depends on which factors and how? The resistance of a wire is R. What will be the resistance of the wire when the wire is of double length and half the radius of the same material? **[4 marks]**

Q. 4 State the following laws with the help of labelled diagram. With the help of the following, the direction of which physical quantity can be known? (i) Fleming's Left Hand Rule (ii) Right Hand Thumb Rule. **[6 marks]**

— OR —

OR: Three wires A, B and C are emerging out from the main source of a house. What will be the name, function, and colour of the insulation for each wire?

Q. 5 (i) Write the chemical equations for two chemical properties of ethanol. (ii) Write the chemical equations for two chemical properties of acetic acid. **[4 marks]**

Q. 6 Explain the following: (a) Double decomposition reaction (b) Neutralization reaction **[4 marks]**

Q. 7 Write short notes on the following: (i) pH value (ii) Oxidation reaction (iii) Combustion reaction **[6 marks]**

— OR —

OR: (i) Write the use of bleaching powder in purification of water. (ii) Write the chemical equation for obtaining gypsum from plaster of Paris. (iii) Explain corrosion by giving example.

Q. 8 What is ozone and how does it affect any ecosystem? **[4 marks]**

Q. 9 Describe the food chain and food web with examples. **[4 marks]**

Q. 10 Write short notes on the following: (a) Vegetative propagation (b) Budding **[4 marks]**

Q. 11 Describe the structure and function of the human brain in brief. **[6 marks]**

— OR —

OR: Describe energy flow in an ecosystem with diagram.

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Rebuild Notes

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1. Section B marks are NOT printed in the Collegedunia transcription; they follow the new-format Science pattern (Physics 4+4+4+6 = 18, Chemistry 4+4+6 = 14, Biology 4+4+4+6 = 18), corroborated by the same-year 824 IJ scan and the 2023 824 EK paper, whose printed marks are identical in structure.
2. Section B questions are entered as whole questions (parts inline) because the source prints no per-part marks.
3. Q4 (Part B) and Q7 (Part B) carry OR alternatives; Q11 carries an OR alternative.
4. Exam date (29 February 2024) is from the CollegeDekho article (first shift); the clock time is not stated in the source, so no time is printed on the paper.

Source (third-party transcription): https://image-static.collegedunia.com/public/image/UP_Board_10_Science_Code_824_IP_2024_92ba95abd529f342cd69f265162aa86c.pdf

Cross-checked against: https://infinitylearn.com/surge/wp-content/uploads/securepdfs/2025/03/UP-Board-Class-10-Previous-Year-Question-Papers_UP_Science_2024_R1.pdf

English text only. The original paper is bilingual (Hindi + English); a Hindi side is a follow-up round, not this one. No official UP Board previous-year archive exists, so every paper in this volume is third-party-source.

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UP BOARD • CLASS 10 (HIGH SCHOOL)

Class 10 Science 2023

Set 824 EK — 3 hours 15 minutes — Maximum Marks: 70

Exam: 27 February 2023, 8:00 AM – 11:15 AM | Time allowed: 3 hours 15 minutes | Maximum marks: 70 | Total questions: 31

General Instructions

1. All questions are compulsory. Marks allotted to each question are given in the margin.
2. In numerical questions, give all the steps of calculation.
3. Give relevant answers to the questions.
4. Give chemical equations, wherever necessary.

Part A

Multiple Choice Questions — 1 mark each

Q. 1 To have a real and enlarged image of an object by a concave mirror, the position of the object should be **[1 mark]**

(A) At the centre of curvature
(B) In between centre of curvature (C) and the focal point (F)
(C) At the pole (P) of the mirror
(D) In between pole (P) and the focal point (F) of the mirror

Q. 2 The unit of the power of the lens is **[1 mark]**

(A) Metre
(B) per metre
(C) metre per second
(D) none of these

Q. 3 When a beam of white light falls on the surface of a triangular prism of glass it splits, after emerging out from the prism, into various colours with different deviations. Which colour has maximum deviation? **[1 mark]**

(A) Red (B) Yellow (C) Green (D) Violet

Q. 4 The sun appears whitish **[1 mark]**

(A) much before sunrise
(B) at the sunrise and sunset
(C) at noon
(D) much after sunset

Q. 5 On which of the following does the resistance of an electrical conductor not depend? **[1 mark]**

(A) Length of the conductor
(B) Density of the material of conductor
(C) The cross-section of the conductor
(D) The shape of the conductor

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Q. 6 In which combination the four resistors be connected to have minimum resultant resistance? **[1 mark]**

(A) All of the resistors in parallel combination
(B) All of the resistors in series combination
(C) One in series with the parallel combination of other three
(D) Two resistors in series with the parallel combination of other two

Q. 7 One needs the help of which of the following rules to know the direction of the magnetic field produced due to a current carrying conductor? **[1 mark]**

(A) Fleming's right hand rule
(B) Fleming's left hand rule
(C) Right hand thumb rule
(D) Ohm's law

Q. 8 Which of the following metals produces hydrogen gas with cold water **[1 mark]**

(A) Copper (B) Gold (C) Potassium (D) Aluminium

Q. 9 The alkene in the following is **[1 mark]**

(A) $HC \equiv CH$
(B) $H_2C = CH_2$
(C) $CH_3 - CH_2 - CH_3$
(D) $CH_3 - C \equiv CH$

Q. 10 A solution turns red litmus into blue. The possible pH value of this solution is **[1 mark]**

(A) 1 (B) 3 (C) 6 (D) 8

Q. 11 The bond present in chlorine molecules is **[1 mark]**

(A) Ionic bond
(B) One covalent bond
(C) Double covalent bond
(D) Triple covalent bond

Q. 12 Useful substances in making water bacteria free is **[1 mark]**

(A) Washing soda
(B) Baking soda
(C) Alum
(D) Bleaching powder

Q. 13 The reactions in which new compounds are formed by exchange of ions, are called **[1 mark]**

(A) Substitution reactions
(B) Double decomposition
(C) Addition reactions
(D) Dissociation

Q. 14 The function of xylem in plants is **[1 mark]**

(A) conduction of water
(B) translocation of food
(C) translocation of amino acid
(D) translocation of oxygen

Q. 15 In which of the following plants did Mendel perform his experiments on inheritance? **[1 mark]**

(A) Tomato (B) Brinjal (C) Pea (D) Mustard

Q. 16 Which is not a part of the female genital system in human from the following? **[1 mark]**

(A) Ovary
(B) Uterus
(C) Vas deferens
(D) Fallopian tube

Q. 17 The autotrophic mode of nutrition requires **[1 mark]**

(A) Carbon dioxide & water
(B) Chlorophyll
(C) Sunlight
(D) All of these

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Q. 18 The examples of homologous organs are **[1 mark]**

(A) Our hands and forearms of the dogs (B) Our teeth and teeth of elephant
(C) Runner of potato and grass (D) All of these

Q. 19 Asexual reproduction takes place through budding in **[1 mark]**

(A) Amoeba (B) Yeast (C) Plasmodium (D) Leishmania

Q. 20 Who proposed Natural Selection Theory? **[1 mark]**

(A) Lamarck (B) Darwin (C) Mendel (D) Morgan

Part B

Descriptive Questions — Sub-section I: Physics (Q. 21–24), Sub-section II: Chemistry (Q. 25–27), Sub-section III: Biology (Q. 28–31)

Q. 21 A convex mirror of radius of curvature 2 metre is attached to a motor bike to watch any other vehicle coming from behind. Calculate the location and position of a vehicle which is at 4 metre behind the bike as seen in the mirror. Also explain by the ray diagram. **[4 marks]**

Q. 22 A person suffering from short-sightedness can see up to 100 metre. Calculate the nature and the focal length of the lens in order to correct this defect so that he can see objects at infinity hence correct vision. Also draw the ray diagram. **[4 marks]**

Q. 23 What is Ohm's law? Explain by drawing the associated circuit diagram. Also discuss the terms on which the resistance of an electrical conductor depends. **[4 marks]**

Q. 24 What is the working principle of an electrical motor? Describe clearly its construction and working method with the help of a diagram. **[6 marks]**

— OR —

OR: What is the working principle of an alternating current generator? Describe its construction and working method with the help of a diagram.

Q. 25(a) Write the structural formula of Propanal. **[1 mark]**

Q. 25(b) Write the structural formula of 2-methyl pentanoic acid. **[1 mark]**

Q. 25(c) Write the structural formula of Propene. **[1 mark]**

Q. 25(d) Write the structural formula of 2-methyl butanol-2. **[1 mark]**

Q. 26(a) Na, Mg and Al are the elements in which the numbers of valence electrons are one, two and three respectively. Which of these elements has the maximum atomic radius? Answer with the reason. **[2 marks]**

Q. 26(b) Which of these elements (Na, Mg, Al) is the least reactive? Answer with the reason. **[2 marks]**

Q. 27(a) Write the balanced chemical equation for the reaction: Plaster of Paris + ... → Gypsum. **[1 mark]**

Q. 27(b) Write the balanced chemical equation for the reaction: Hydrogen + Chlorine → ..... **[1 mark]**

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Q. 27(c) Write the balanced chemical equation for the reaction: Zinc carbonate → Zinc oxide + ... **[1 mark]**

Q. 27(d) Write the balanced chemical equation for the reaction: Magnesium + ... → Magnesium chloride + Hydrogen **[1 mark]**

Q. 27(e) Write the balanced chemical equation for the reaction: Barium chloride + Sulphuric acid → ..... + Hydrochloric acid **[1 mark]**

Q. 27(f) Write the balanced chemical equation for the reaction: Silver nitrate + Sodium iodide → ..... + Sodium nitrate. **[1 mark]**

— OR —

OR: Write notes on the following: (a) Dissociation reaction (b) Corrosion (c) Galvanization. (2 marks each)

Q. 28 What are Mendel's laws? Explain them with suitable diagrams. **[4 marks]**

Q. 29 Draw a labelled diagram of longitudinal section (L.S) of gynoecium to show the fertilization in flowers and describe it. **[4 marks]**

Q. 30 Why is conservation of forest necessary? Explain. **[4 marks]**

Q. 31 Explain the structure of Nephron and mechanism of its working. **[6 marks]**

— OR —

OR: Draw a labelled diagram of human digestive system and explain the digestive process.

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Rebuild Notes

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1. The Collegedunia header says “Maximum Marks: 100” — wrong; the printed total is 70 (20 + 50), confirmed by the InfinityLearn scan of the same set, which says “Total marks: 70”.
2. Cross-checked question by question against the InfinityLearn scan of the same set 824 EK (Q1/Q2 identical, Part B numbering Q21–Q31 identical, printed marks identical).
3. Q27: the reactions are printed with blanks in the InfinityLearn scan of the actual paper; the blank format is used here, NOT the Collegedunia transcription’s filled-in versions.
4. Part B marks are as printed in the InfinityLearn scan (Q21 2+2, Q22 2+2, Q23 2+2, Q24 1+2+2+1, Q25 1+1+1+1, Q26 2+2, Q27 1×6, Q28 2+2, Q29 2+2, Q30 4, Q31 3+3).
5. Exam date and time (27 February 2023, 8:00 AM – 11:15 AM, morning shift) are from the UPMSP 2023 date sheet as reported by BYJU’S, Times of India, JagranJosh and others.

Source (third-party transcription): https://image-static.collegedunia.com/public/image/UP_Board_Class_10_Science_824_EK_2023_Question_Paper_with_Solutions_c02df43c81296cc819f26b45c040b386.pdf

Cross-checked against: https://infinitylearn.com/surge/wp-content/uploads/securepdfs/2025/03/UP-Board-Class-10-Previous-Year-Question-Papers_UP_Science_2023_R1.pdf

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UP BOARD • CLASS 10 (HIGH SCHOOL)

Class 10 Science 2022

Set 824 BJ — 3 hours 15 minutes — Maximum Marks: 70

Time allowed: 3 hours 15 minutes | Maximum marks: 70 | Total questions: 12

General Instructions

1. First 15 minutes time has been allotted for the candidates to read the question paper.
2. This question paper is divided into three parts, A, B and C.
3. First question of each part is a multiple choice type question in which four alternative answers are given in each. Select the correct answer and write down in your answer-book.
4. Attempt all the questions of each part together at one place. Each part should be attempted on a new page.
5. All questions are compulsory.
6. Marks allotted for each question are mentioned against them.
7. Illustrate your answers with neat and labelled diagrams and chemical equations wherever necessary.

Part A — Physics

Q. 1(a) Refractive index of the medium with respect to air, is maximum for: **[1 mark]**

(A) Water (B) Diamond
(C) Glass (D) Turpentine oil

Q. 1(b) To remove myopia or short-sightedness, one should use the spectacles with: **[1 mark]**

(A) Concave lens (B) Concave mirror
(C) Convex lens (D) Convex mirror

Q. 1(c) Magnetic lines of force: **[1 mark]**

(A) are always parallel (B) meet at a point
(C) do not intersect each other (D) intersect each other

Q. 1(d) If ϕ = Magnetic flux, B = Intensity of magnetic field and A = Area of cross-section, the correct relation among these is: **[1 mark]**

(A) $B = \phi/A$ (B) $\phi = B/A$ (C) $A = B \cdot \phi$ (D) $B = \phi \cdot A$

Q. 2(a) The image of an object placed on the principal axis at 30 cm from the pole of a concave mirror is formed on the object itself. What is the focal length of the mirror? **[2 marks]**

Q. 2(b) Find out the radius of curvature of a concave mirror of focal length 40 cm. **[2 marks]**

Q. 2(c) Why is convex mirror used in auto vehicles? **[2 marks]**

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Q. 3(a) A concave lens of 15 cm focal length forms the image of an object at a distance of 10 cm from the lens. At what distance is the object situated from the lens? Draw ray diagram also. **[4 marks]**

— OR —

OR: A man using spectacles, can observe clearly an object placed at 25 cm distance. The focal length of the lens used in the spectacles is 50 cm. At what distance can the man read a book without using the spectacles?

Q. 3(b) An electron of mass 9×10^{-31} kg and charge 1.6×10^{-19} coulomb is moving with velocity 3×10^{6} m/sec parallel to X-axis and enters into a magnetic field of 0.3 Weber/m^2 parallel to Z-axis. Determine the force acting on the electron, acceleration and the direction of force. **[4 marks]**

— OR —

OR: The resistances 2Ω, 3Ω and 5Ω are joined in series. If a potential difference of 30 volt is applied at the ends of the combination, calculate the potential difference between the ends of each resistance.

Q. 4 What do you understand by magnetic effect of electric current? On which factors does the intensity of magnetic field due to a straight long current carrying conductor depend? Write down the law for the direction of magnetic field. **[7 marks]**

— OR —

OR: What is the principle of electric motor? Describe its construction using labelled diagram. Explain its working. Write the uses of electric motor.

Part B — Chemistry

Q. 5(a) The pH value of pure water is: **[1 mark]**

(A) 0 (B) 1 (C) 7 (D) 14

Q. 5(b) The metal which removes hydrogen from acid is: **[1 mark]**

(A) Zn (B) Cu (C) Ag (D) Hg

Q. 5(c) The chemical formula of propane is: **[1 mark]**

(A) CH_4 (B) C_3H_8 (C) C_4H_{10} (D) C_2H_6

Q. 6(a) Write the IUPAC name of the following compounds: (i) $CH_3CH_2CH_2CH_3$ (ii) CH_3COOH **[2 marks]**

Q. 6(b) Write the Mendeleev's periodic law and explain it. **[2 marks]**

Q. 6(c) Complete the following chemical reactions: (i) $CH_3COOH + C_2H_5OH \xrightarrow{\text{conc. } H_2SO_4}$ (ii) $C_2H_5Br + KOH$ (aqueous) **[2 marks]**

Q. 7(a) Write the name and chemical formulae of washing soda and baking soda. **[2 marks]**

Q. 7(b) Explain the double displacement reaction with examples? **[2 marks]**

Q. 8(a) What is corrosion? Explain it with example. **[2 marks]**

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Q. 8(b) Write a short note on Saponification. **[2 marks]**

Q. 8(c) Define Period and Groups in the periodic table. **[3 marks]**

— OR —

OR: Write short notes on the following: (a) Redox reaction (b) Homologous series (c) Characteristics of Mendeleev's periodic table

Part C — Biology

Q. 9(a) The processes by which complex organic molecules are broken down into simpler molecules are: **[1 mark]**

(A) anabolic reactions (B) catabolic reactions
(C) Both (i) and (ii) (D) normal reactions

Q. 9(b) Which of the following vitamin deficiency causes Pellagra disease? **[1 mark]**

(A) Vitamin B1 (B) Vitamin B2 (C) Vitamin B5 (D) Vitamin B12

Q. 9(c) Haemoglobin plays a significant role in: **[1 mark]**

(A) respiration (B) excretion (C) digestion (D) nutrition

Q. 9(d) Translocation of food by Phloem occurs in the form of: **[1 mark]**

(A) protein (B) fats (C) sucrose (D) fatty acids

Q. 10(a) Which enzyme is found in saliva and which substance does that enzyme digest? **[2 marks]**

Q. 10(b) Draw a labelled diagram of pollen grain. **[2 marks]**

Q. 10(c) What is regeneration? Give any two examples of it. **[2 marks]**

Q. 11(a) What do you know about monohybrid and dihybrid crosses? **[4 marks]**

— OR —

OR: What are sex-linked diseases? Name any two sex-linked diseases.

Q. 11(b) What is double circulation? Explain it. **[4 marks]**

— OR —

OR: What do you know about family planning? Describe any two methods of family planning.

Q. 12 Differentiate between androecium and gynoecium. Explain functions of both and differentiate between pollination and fertilization. **[7 marks]**

— OR —

OR: Explain Mendel's law of segregation by monohybrid cross and also explain the genotype and phenotype of generation obtained by it.

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Rebuild Notes

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1. Set identified as 824 BJ: Q1(a) (refractive index maximum — Diamond) and Q2(a) (concave mirror, object 30 cm, image on the object itself) match the Shyarana 824 BJ page exactly.
2. Part marks follow the old-format Science pattern (Part A 4+6+8+7 = 25, Part B 3+6+4+7 = 20, Part C 4+6+8+7 = 25), verified against the printed inline margin marks in the 2020 Science paper of the same format. Q8(c) is 3 marks by analogy with the 2020 paper's Q8 (2+2+3).
3. Q1(d): the extract spells "Internaty"; corrected to "Intensity".
4. No answer key is reproduced; the source's answer to Q9(b) (Pellagra) is wrong science and is not copied.
5. Exam date: the source does not state the 2022 Science exam date, so no date is printed on the paper.
6. Duration (3 hours 15 minutes) follows the 2020 Science paper of the same format; the 2022 source does not state it.

Source (third-party transcription): https://infinitylearn.com/surge/wp-content/uploads/securepdfs/2025/03/UP-Board-Class-10-Previous-Year-Question-Papers_Science_UP_2022_R1.pdf

Cross-checked against: https://www.shyarana.com/2026/02/up-board-class-10-science-solved-paper-2022-824-bj-bp.html

English text only. The original paper is bilingual (Hindi + English); a Hindi side is a follow-up round, not this one. No official UP Board previous-year archive exists, so every paper in this volume is third-party-source.

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UP BOARD • CLASS 10 (HIGH SCHOOL)

Class 10 Science 2020

Set 824 (set unverified) — 3 hours 15 minutes — Maximum Marks: 70

Time allowed: 3 hours 15 minutes | Maximum marks: 70 | Total questions: 12

General Instructions

1. First 15 minutes are allotted for the candidates to read the question paper.
2. This question paper is divided into three parts, A, B and C.
3. First question of each part is multiple choice type. Four alternative answers are given in each. Select the correct answer and write down in your answer-book.
4. Attempt all the questions of each part together at one place. Each part should be attempted on a new page.
5. All questions are compulsory.
6. Marks of the questions are mentioned against them.
7. Illustrate your answers with neat and labelled diagrams and chemical equations wherever necessary.

Part A — Physics

Q. 1(a) The magnification of a virtual image of an object placed at distance 0.2 m from a lens is 0.5. The lens will be **[1 mark]**

(A) concave lens of focal length 0.1 m
(B) concave lens of focal length 0.2 m
(C) convex lens of focal length 0.1 m
(D) convex lens of focal length 0.2 m

Q. 1(b) The refractive index of glass is maximum for **[1 mark]**

(A) red colour
(B) yellow colour
(C) violet colour
(D) green colour

Q. 1(c) How many joules are there in 1 kilowatt-hour? **[1 mark]**

(A) 3600
(B) 36×10^3
(C) 3.6×10^5
(D) 3.6×10^6

Q. 1(d) A moving electron produces **[1 mark]**

(A) electric field only
(B) magnetic field only
(C) electric and magnetic fields both
(D) no field

Q. 2(a) What type of image is formed by a convex mirror? Write two practical uses of convex mirror. **[2 marks]**

Q. 2(b) What is hypermetropia or long sightedness? How is it removed? **[2 marks]**

Q. 2(c) Calculate the magnifying power of a lens of power +20 dioptre, when the image of an object is formed by the lens at least distance of distinct vision. **[2 marks]**

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Q. 3(a) A candle is placed 90 cm apart from a screen. Where should a convex lens of focal length 20 cm be placed in between candle and the screen so that a real and diminished image of the candle is formed distinctly on the screen? **[4 marks]**

— OR —

OR: What is Myopia or short sightedness? What is the reason? Explain the method for its correction using labelled diagram.

Q. 3(b) The potential difference between the ends of a wire is 1.5 volt. Energy of 15 joule is obtained when a current is flowing through the wire for 20 sec. Calculate the current flowing through the wire. **[4 marks]**

— OR —

OR: How many bulbs of 25 watt each can glow in a circuit of 250 volt and 5 ampere fuse?

Q. 4 Explain the principle of Direct Current Dynamo and describe its working using a labelled diagram. **[7 marks]**

— OR —

OR: Two bulbs, one with 100 watt and 220 volt, the other one with 60 watt and 220 volt rating are joined in parallel with 220 volt supply line. Calculate the current passing through the supply line.

Part B — Chemistry

Q. 5(a) Which of the following is not strong electrolyte? **[1 mark]**

(A) Ammonium chloride
(B) Sodium acetate
(C) Hydrogen sulphide
(D) Potassium nitrate

Q. 5(b) Which of the following statements is incorrect for neutral solution? **[1 mark]**

(A) The value of H^+ ion concentration is 10^{-7} mol/lit
(B) The value of OH^- ion concentration is 10^{-7} mol/lit
(C) pH is zero
(D) pH is 7

Q. 5(c) Ketonic group > C = O is present in **[1 mark]**

> **Figure:** The four options are structural diagrams in the printed paper, rendered here as condensed formulae: (i) formaldehyde HCHO (ii) acetaldehyde CH_3CHO (iii) acetic acid CH_3COOH (iv) acetone CH_3COCH_3. (Diagrams not reproduced.)

(A) H–C(=O)–H
(B) CH_3–C(=O)–H
(C) CH_3–C(=O)–OH
(D) CH_3–C(=O)–CH_3

Q. 6(a) Write down the I.U.P.A.C. names of the following: (i) CH_3–CH_2–C(=O)–OH (ii) $CH_3C{\equiv}CH$ **[2 marks]**

> **Figure:** The two compounds are structural diagrams in the printed paper, rendered here as condensed formulae. (Diagrams not reproduced.)

Q. 6(b) Write four uses of Mendeleev’s Periodic Table. **[2 marks]**

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Q. 6(c) Differentiate between ethanol and ethanoic acid on the basis of physical and chemical properties. **[2 marks]**

Q. 7(a) Write chemical equation for obtaining zinc metal from zinc sulphide. **[2 marks]**

Q. 7(b) Write short notes on the following: (i) Combustion reaction (ii) Substitution reaction. **[2 marks]**

Q. 8(a) Differentiate between metals and non-metals. **[2 marks]**

Q. 8(b) Explain rusting of metals. **[2 marks]**

Q. 8(c) Explain tetrahedral nature of carbon atom by taking the example of saturated and unsaturated hydrocarbons. **[3 marks]**

— OR —

OR: Write short notes on the following: (i) Homologous series. (2 marks) (ii) Oxidation reaction. (2 marks) (iii) Addition reaction. (2 marks) (iv) Neutralisation reaction. (1 mark)

Part C — Biology

Q. 9(a) According to Mendel, genotype of a dwarf pea plant is **[1 mark]**

(A) TT (B) Tt (C) tt (D) tT

Q. 9(b) The branch of science which deals with the study of fossils is called **[1 mark]**

(A) Ecology (B) Ethology
(C) Palaeontology (D) Biology

Q. 9(c) Regulation of Goitre is carried out by **[1 mark]**

(A) thyroxine (B) adrenaline (C) insulin (D) oxytocin

Q. 9(d) Which one of the following mechanisms occurs only in animals? **[1 mark]**

(A) Hormonal control (B) Respiration
(C) Growth (D) Nervous control

Q. 10(a) What products are obtained during oxidation of glucose molecule by yeast in the absence of oxygen? **[2 marks]**

Q. 10(b) What are the roles of acid in our digestion? Discuss. **[2 marks]**

Q. 10(c) Explain the conduction of water and minerals in plants. **[2 marks]**

Q. 11(a) Despite the difference in shape, size and colour, all human beings are placed in the same single species. Explain the reason. **[4 marks]**

— OR —

OR: Write notes on the following: (i) Natural selection. (2 marks) (ii) Reflex action. (2 marks)

Q. 11(b) Differentiate between unisexual and bisexual flowers and give one example of each. **[4 marks]**

— OR —

OR: Define pollination. Name the various types of pollination and describe any one of them. (1 + 1 + 2)

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Q. 12 What do you mean by Family Planning? Describe its various methods to control population. **[7 marks]**

— OR —

OR: Write notes on the following: (a) Plant hormones. (3 marks) (b) Ecosystem. (4 marks)

Rebuild Notes

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1. SET CODE NOT IDENTIFIED: the source scan carries no set code on its cover. The 2020 Science sets are NJ, NK, NL, NM, NN, NO, NP; set NM was excluded by direct comparison (the CollegeDekho 824 NM Hindi print has different Q1 questions). The remaining candidates are NJ, NK, NL, NN, NO, NP — the paper is printed with the set shown as unverified.
2. Part marks are the printed inline margin marks from the source itself (Part A 4+6+8+7 = 25, Part B 3+6+4+7 = 20, Part C 4+6+8+7 = 25).
3. Q5(c) and Q6(a): the options/compounds are structural diagrams in the printed paper; they are rendered as condensed formulae and verified visually from the source PDF pages 7–8.
4. Q9(c): the extract spells the fourth option “oxytoxin”; corrected to “oxytocin”.
5. Exam date: the source does not state the 2020 Science exam date, so no date is printed on the paper.

Source (third-party transcription): https://infinitylearn.com/surge/wp-content/uploads/securepdfs/2025/03/UP-Board-Class-10-Previous-Year-Question-Papers_UP_SCIENCE_2020_R1.pdf

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