10th Standard

Arivaali

SCIENCE

Question Bank

COLLECTION OF
GOVT. BOARD EXAM. QUESTION PAPERS

SEPTEMBER 2020 SEPTEMBER 2021 MAY 2022 ; AUGUST 2022 APRIL 2023 ; JUNE 2023 APRIL 2024 ; JULY 2024 APRIL 2025 ; JULY 2025 APRIL 2026 ; JULY 2026	NUMBER OF QUESTION PAPERS **12**

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Topics for Scoring Marks Easily in 10th Standard Science

Qn. No.	Topics	Marks	Total
1 - 12	Multiple Choice Questions	12	26 Only the simple practice is enough
	Identify the parts	2	
	Draw and label the parts (2 + 4)	6	
22, 32	Problems (2+4)	6	
	Questions on 'Uses' Questions on 'Properties' Questions on 'Applications / Functions' Questions on 'Differentiate' Questions on 'Define' Questions on 'Laws' The questions which were asked in previous public examinations and some more important questions		49 A huge practice is needed.
	Total Marks		75

GOVT. BOARD EXAM QUESTION PAPER : X - STD : SEPTEMBER-2020

Time Allowed : 3.00 Hours] **SCIENCE** **[Maximum Marks: 75**

PART - I

Note: (i) Answer **all** the questions. $12 \times 1 = 12$

(ii) Choose the most appropriate answer from the given **four** alternatives and write the option code and the corresponding answer.

1. The eye defect 'Presbyopia' can be corrected by
   (a) Convex lens (b) Concave lens (c) Convex mirror (d) Bifocal lenses
2. The value of Avogadro number is_____ /mol.
   (a) 6.023×10^{-23} (b) 6.024×10^{24} (c) 6.023×10^{23} (d) 6.024×10^{-24}
3. Identify the non-aqueous solution.
   (a) Sodium chloride in water (b) Glucose in water
   (c) Copper sulphate in water (d) Sulphur in carbon disulphide
4. An electric heater of resistance 5Ω is connected to an electric source. If a current of 6 A flows through the heater, find the amount of heat produced in 5 minutes.
   (a) 48000 J (b) 54000 J (c) 45000 J (d) 84000 J
5. $C_2H_5OH + 3O_2 \rightarrow 2CO_2 + 3H_2O$ is
   (a) Reduction of ethanol (b) Combustion of ethanol
   (c) Oxidation of ethanoic acid (d) Oxidation of ethanal
6. Which is formed during anaerobic respiration ?
   (a) Carbohydrate (b) Ethyl Alcohol (c) Acetyl CoA (d) Pyruvate
7. Who is regarded as the "Father of Modern Physiology"?
   (a) His-Atrio (b) William Harvey (c) Karl Landsteiner (d) Edward C. Kendal
8. Node of Ranvier is found in _____.
   (a) muscles (b) axons (c) dendrites (d) cyton
9. _____ is found abundantly in liquid endosperm of coconut.
   (a) Auxin (b) Cytokinin (c) Gibberellins (d) Ethylene
10. We can cut the DNA with the help of
    (a) Scissors (b) Restriction enzymes
    (c) Knife (d) DNA ligases
11. Match the following :

(1) Polyvinyl chloride	(i) Affects brain development in children
(2) Cadmium	(ii) Affects the growth of reproductive system
(3) Lead	(iii) Asthmatic bronchitis
(4) Chromium	(iv) Neural damage

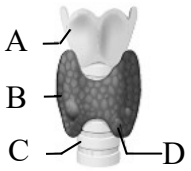
    (a) (1)-(i), (2)-(iii), (3)-(iv), (4)-(ii) (b) (1)-(ii), (2)-(i), (3)-(iii), (4)-(iv)
    (c) (1)-(iii), (2)-(ii), (3)-(iv), (4)-(i) (d) (1)-(ii), (2)-(iv), (3)-(i), (4)-(iii)

12. Find the correct pair.
    (a) Acrocentric - The centromere is found near the centre of the chromosome with two unequal arms.
    (b) Submetacentric - The centromere is found on the proximal end.
    (c) Metacentric - The centromere occurs in the centre of the chromosome and forms two equal arms.
    (d) Telocentric - The centromere is found at one end with a short arm and a long arm.

PART - II

Note: Answer **any seven** questions. Question NO. **22** is **compulsory**. $7 \times 2 = 14$

13. Write short notes on gears.
14. Mention two cases in which there is no Doppler effect in sound.
15. Define co-efficient of real expansion and mention its unit.
16. Write a reaction which is used for the identification of alcohol.
17. Name the three types of neurons and find its location.
18. Identify the parts A, B, C and D in the given figure.



19. How can you determine the age of fossils ?
20. State the applications of DNA fingerprinting technique.
21. What is "Stage" in Scratch editor ?
22. A beam of light passing through a diverging lens of focal length 0.3 m appears to be focused at a distance 0.2 m behind the lens. Find the position of the object.

PART - III

Note: Answer **any seven** questions. Question NO. **32** is **compulsory**. $7 \times 4 = 28$

23. Describe rocket propulsion.
24. What are the uses of Simple microscope ?
25. (a) What do you understand by the term 'Ultrasonic waves'?
    (b) What are the medical applications of echo ?

26. What are the methods of preventing Corrosion ?
27. Differentiate soaps and detergents.
28. Differentiate between Monocot root and Dicot root.
29. Draw the external structure of human heart and label the parts.
30. Define Ethnobotany and write its importance.
31. Explain about Gene Therapy.
32. (a) A solution was prepared by dissolving 25 g of sugar in 100 g of water. Calculate the mass percentage of solute.
    (b) True or false (If false give the correct statement),
        (i) In our daily life, solution of syrups, mouth wash, antiseptic solution, household disinfectants etc., the concentration of ingredients of solution is expressed as w/w.
        (ii) In Oinments, antacids, soaps etc., the concentration of solution is expressed as v/v.

PART - IV

Note: Answer **all** the questions. Draw diagrams wherever **necessary**. $3 \times 7 = 21$

33. (a) Explain about domestic electric circuits.

OR

    (b) Compare the properties of alpha, beta and gamma radiations.

34. (a) (i) Give the salient features of "Modern atomic theory".
        (ii) Write any two applications of "Avogadro's Law".

OR

    (b) (i) Explain single displacement reaction with examples.
        (ii) Explain the types of double displacement reactions with examples.

35. (a) (i) Why are the rings of cartilage found in trachea of rabbit?
        (ii) Write a note on UTI.

OR

    (b) (i) What is the biological significance of DNA?
        (ii) What precautions can be taken for preventing heart diseases ?
        (iii) Mention any two approaches for protection of an Abused child.

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10th Std. - Science Board Exams. KEY for 1 Mark Questions

		September 2020
1	d	Bifocal lenses
2	c	6.023×10^{23}
3	d	Sulphur in carbon disulphide
4	b	54000 J
5	b	Combustion of ethanol
6	b	Ethyl Alcohol
7	b	William Harvey
8	b	axons
9	b	Cytokinin
10	b	Restriction enzymes
11	d	(1)-(ii), (2)-(iv), (3)-(i), (4)-(iii)
12	c	Metacentric - The centromere occurs in the centre of the chromosome and forms two equal arms

		May 2022
1	c	2f
2	c	homo atomic
3	a	2
4	c	2.4 A
5	a	95.5%
6	b	stem
7	c	2
8	a	Generative cell
9	b	Pituitary gland
10	d	wheat
11	b	(1) - (iii), (2) - (iv), (3) - (i), (4) - (ii)
12	b	Waldeyer - Chromosomes

		September 2021
1	d	Both (a) and (c)
2	c	Ohm
3	b	340 m/s
4	d	All of the above
5	d	Duralumin
6	d	Alcohol
7	b	Karl Landsteiner
8	c	Zygote
9	b	Sertoli cells
10	a	Louis Pasteur
11	c	Cow pea
12	b	Atomita 2

		August 2022
1	d	Both (a) and (c)
2	c	32 g
3	b	Hg
4	c	Electrical energy
5	d	7, 18
6	c	Water
7	a	2, 4-D
8	a	May 31
9	c	(ii) and (iii) only
10	c	Salivary gland
11	b	Stem
12	c	2