

(SCIENCE PAPER - 2)

Maximum Marks: 80

Time allowed: Two hours

Answers to this Paper must be written on the paper provided separately.

You will **not** be allowed to write during first 15 minutes.

This time is to be spent in reading the question paper.

The time given at the head of this Paper is the time allowed for writing the answers.

Section A is compulsory. Attempt any four questions from Section B.

The intended marks for questions or parts of questions are given in brackets [ ].

SECTION A (40 Marks)

(Attempt all questions from this Section.)

Question 1

Choose the correct answers to the questions from the given options.

[15]

(Do not copy the questions, write the correct answers only.)

(i) Unsaturated hydrocarbons undergo:

- (a) Addition reaction
- (b) Substitution reaction
- (c) Oxidation reaction
- (d) Redox reaction

(ii) In the 2<sup>nd</sup> period Neon has maximum Ionization Potential because:

- (a) It has unstable electronic configuration.
- (b) It easily accepts electrons.
- (c) It easily loses electrons.

(d) The outer most shell is completely filled.

This paper consists of 12 printed pages.

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ANSWER KEY FOR BOARD EXAM 2024 CLASS 10 ICSE 11.03.2024 MCQ| FILL UP

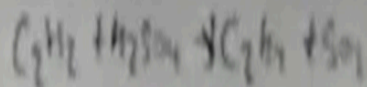
Copper, zinc and Tin are the metals alloyed to form:

- (a) Duralumin
  - (b) Brass
  - (c) Bronze
  - (d) Solder
- (iv) The metal hydroxide which reacts with both acids and alkalis to form salt and water is:
- (a) Calcium hydroxide
  - (b) Magnesium hydroxide
  - (c) Aluminium hydroxide
  - (d) Ferric hydroxide
- (v) Reaction of an alcohol with a carboxylic acid in the presence of concentrated  $H_2SO_4$  is termed as:
- (a) ~~Halogenation~~
  - (b) Esterification
  - (c) Hydrogenation
  - (d) Dehydrohalogenation

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(vi) Conversion of Ethanol to Ethene by the action of concentrated sulphuric acid involves

✓ (a) Dehydration



(b) Dehydrogenation

(c) Dehydrohalogenation

(d) Hydrolysis

(vii) The oxidizing agent in the equation  $S + 2H_2SO_4 \rightarrow 3SO_2 + 2H_2O$  is:

(a) Sulphur

(b) Sulphuric acid

✓ (c) Sulphur dioxide

(a) Mg

(b) Ar

(c) Li

(d) Br

(ix) The compound that is **not** a constituent of the electrolytic mixture used in the Hall-Heroult's process is:

(a)  $\text{Al}_2\text{O}_3$

(b)  $\text{NaAlO}_2$

(c)  $\text{Na}_3\text{AlF}_6$

(d)  $\text{CaF}_2$

(x) On passing ammonia gas over heated copper oxide for some time, a reddish-brown residue is left behind. What property of ammonia is demonstrated here?

(a) Basic property

(b) Oxidising property

(c) Reducing property

... ammonia gas over heated copper oxide for some time, a reddish-brown residue is left behind. What property of ammonia is demonstrated here?

- (a) Basic property
- (b) Oxidising property
- (c) Reducing property
- (d) Acidic property

(xi) Rotten egg smell is due to the liberation of:

- (a) HCl gas
- (b) H<sub>2</sub>S gas
- (c) Cl<sub>2</sub> gas
- (d) SO<sub>2</sub> gas

(a) very slightly soluble in water.

(b) heavier than air.

(c) lighter than air.

(d) insoluble in water.

(xiii) Which of the following would occupy 22.4 litres at S.T.P.?

1. 32g of oxygen gas

2. 2 moles of hydrogen gas

3.  $6.022 \times 10^{23}$  molecules of ammonia

(a) 1 & 2

(b) 1 & 3

(c) 2 & 3

(d) 1, 2 & 3

[Atomic weights: O = 16, H = 1, N = 14]

(xiv) In the molecule of water, oxygen atom has:

(a) One shared pair of electrons.

(b) Three shared pairs of electrons.

(c) Two lone pairs of electrons.

(d) One lone pair of electrons.

$$\frac{32}{16} = 2 \text{ moles}$$

Handwritten calculation showing the conversion of 32g of oxygen gas to moles. It shows 32 divided by 16 equals 2, with a note '2 x 22.4' and '2 x 22.4' written below the result.

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(xv) A mineral from which the metal can be extracted economically and conveniently is known as:

(a) Matrix

(b) Ore

(c) Flux

(d) Alloy

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(ii) Match the Column A with Column B:

Column A	Column B
(a) Water	1. Lithium (b)
(b) Alkali metal	2. Iodine (c)
(c) Halogen	3. Covalent compound (a)
(d) Calcium oxide	4. Acetic acid (e)
(e) Weak acid	5. Ionic compound (d)
	6. Sulphuric acid

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(iii) Complete the following sentences by choosing the correct answer from the brackets.

- (a) The salt that can be prepared by Direct Combination is \_\_\_\_\_.  
[ $FeCl_3$  /  $FeCl_2$ ]
- (b) The metallic oxide which can be reduced by using common reducing agents is \_\_\_\_\_.  
[ $Fe_2O_3$  /  $Al_2O_3$ ]
- (c) The metal nitrate which on thermal decomposition forms a black residue is \_\_\_\_\_.  
[zinc nitrate / copper nitrate]
- (d) During the electrolysis of copper sulphate solution, if \_\_\_\_\_ is used as electrodes, the colour of the electrolyte does not fade. [copper / platinum]
- (e) The process of heating the concentrated ore in a limited supply or absence of air is \_\_\_\_\_.  
[roasting / calcination]

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