

I. Choose the correct answer: $5 \times \frac{1}{2} = 2\frac{1}{2}$

- The Harappans did not have the knowledge of _____.
 - Gold and Elephants
 - Horse and Iron
 - Sheep and Silver
 - Ox and Plantinum
- The preservation process of dead body in ancient Egypt is called a _____.
 - Saracophagus
 - Hyksos
 - Mummification
 - Polytheism
- The average global surface temperature is _____.
 - 12°C
 - 13°C
 - 14°C
 - 15°C
- All types of clouds are found in the _____.
 - Troposphere
 - Ionosphere
 - Mesosphere
 - Exosphere
- The Meaning of Franchise is _____.
 - Right to elect
 - Right to vote for the poor
 - Right to vote
 - Right to vote for the rich

II. Fill in the blanks: $2 \times 1 = 2$

- _____ was the master archive keepers of Chou State according to traditions.
- An example for direct democracy is _____.

III. Match the following: $5 \times \frac{1}{2} = 2\frac{1}{2}$

- | | | |
|-------------------------------|---|----------------|
| 1. Unitary form of government | - | Democracy |
| 2. USA | - | England |
| 3. Willy Willy | - | Story on Earth |
| 4. Mare's Tail | - | Vatican |
| 5. Gilgamesh | - | Arthashastra |
| | - | Congress |

IV. Answer any three of the following: $3 \times 2 = 6$

- What is precipitation? What are the different forms of precipitation?
- Mention the factors that affect the climate.
- State the sailent features of the Ziggurats.
- Write note on Unitary form of government.
- List the types of constitution.

V. Answer the given caption: $1 \times 4 = 4$

Early Civilization

- What is meant by civilisation?
- Name the important early civilisations?
- What did South India witness during the time of early civilisation?
- What happened when civilization began to take shape?

VI. Distinguish between any one of the following: $2 \times 1 = 2$

- Weather and climate.
- Windward side and leeward side.

VII. Answer any one of the following in detail: $1 \times 4 = 4$

- How are clouds classified? Explain them.
- To what extent is the Chinese influence reflected in the fields of philosophy and literature.

VIII. Locate the following places in the outline map of world:

$4 \times \frac{1}{2} = 2$

- A Kart Region
- Any one hot and cold deserts
- Equatorial Biomes
- Prairies

I. Choose the correct answer: 4x1=4

- Number of valence electrons in Carbon is _____.
a) 2 b) 4 c) 3 d) 5
- Covalent bond is formed by _____.
a) transfer of electrons b) sharing of electrons
c) sharing a pair of electrons d) None of the above
- Elements with stable electronic configurations have eight electrons in their valence shell. They are _____.
a) halogens b) metals c) noble gases d) non-metals
- Reducing agents are also called as _____ because they donate electrons to other substances.

II. Answer any five of the following questions: 5x2=10

- Write a note on different types of bonds.
- Give an example for each of the following statements.
a) A compound in which one ionic bond is formed.
b) A compound in which three covalent bonds are formed.
- How do atoms attain Noble gas electronic configuration?
- Draw the electron distribution diagram for the formation of Carbon- di-oxide (CO₂) molecule.
- NaCl is insoluble in Carbon Tetrachloride but soluble in water .
Give reason.

- What are Redox reactions?
 - What are donar and acceptor atoms?
 - Illustrate the formation of hydrogen molecule
- III. Answer in brief: 1x4=4

- Explain oxidation reactions in daily life.
(or)
- Write the differences between ionic and covalent compounds
(any four points)

IV. Answer in detail: 1x7=7

- i) Discuss in brief about the properties of coordinate covalent compounds.
ii) Identify the following reactions as oxidation or reduction.
a) $\text{Na} \rightarrow \text{Na}^+ + e^-$
b) $\text{Fe}^{3+} + 2e^- \rightarrow \text{Fe}^+$

(or)

- i) Explain the formation of ionic bond in Magnesium Chloride
ii) Why are Noble gases inert in nature?

I. Choose the correct answer: 4x1=4

- We can create enlarged, virtual images with _____.
a) concave mirror b) plane mirror
c) convex mirror d) none of the above
- The angle of deviation of light ray in a prism depends on the angle of _____.
a) point of incidence b) incidence
c) refraction d) reflection
- The speed of light is maximum in _____.
a) Vacuum b) glass c) diamond d) water
- A ray of light passes from one medium to another medium to another medium. Refraction takes place when angle of incidence is _____.
a) 0° b) 45° c) 90° d) 30°

II. Answer any five of the following: 5x2=10

- Concave mirrors are used by dentists to examine teeth. Why?
- What is the speed of light in Vacuum?
- Assertion and Reason:

Assertion: For observing the traffic at a hairpin bend in mountain paths a plane mirror is preferred over convex mirror and concave mirror.

Reason: A convex mirror has a much larger field of view than a plane mirror or a concave mirror.

- If both assertion and reason are true and reason is the correct explanation.
- If both assertion and reason are true and reason is not the correct explanation.
- If assertion is true but reason is false.
- If assertion is false but reason is true.

8. Light travels from a rarer medium to a denser medium. The angles of incidence and refraction are respectively 45° and 30° . Calculate the refractive index of the second medium with respect to the first medium.
9. Write the spherical mirror formula and explain the meaning of each symbol used in it.
10. Light ray emerges from water into air. Draw a ray diagram indicating the change in its path in water.
11. The speed of light in water is $2.25 \times 10^8 \text{ms}^{-1}$. If the speed of light in Vacuum $3 \times 10^8 \text{ms}^{-1}$. Calculate the refractive index of water .
12. Pick out the concave and convex mirrors from the following and tabulate them.
Rear view mirror, Dentists mirror, Torch light mirror, Mirrors in shopping malls, Make up mirror.

III. Answer any one of the following: 1x4=4

13. What is meant by magnification? Write its expression. What is its sign for real image and virtual image?
14. When a ray of light passes from air into glass, is the angle of refraction greater than or lesser than the angle of incidence?

III. Answer any one of the following: 1x7=7

15. Explain with diagrams how refraction of incident light takes place from
a) rarer to denser medium b) denser to rarer medium
c) normal to the surface separating the two media.
16. a) Draw ray diagrams to show how the image is formed using a concave mirror. When the position of object is
i) at C
ii) between C and F
iii) between F and P of the mirror.
b) Mention the position and nature of image in each case.

I. Choose the correct answer: 4x1=4

1. $\text{Zn} + 2\text{HCl} \rightarrow \text{ZnCl}_2 + \text{_____} \uparrow$
a) H_2 b) O_2 c) CO_2 d) NO_2
2. The hydrated salt of copper sulphate has _____ colour.
a) red b) white c) blue d) green
3. _____ is used to find out the power of hydrogen ion concentration in a solution.
a) Litmus Paper b) pH paper
c) Phenolphthalein d) Methyl Orange
4. _____ is a Latin phrase meaning 'King's Water.'
a) Acid b) Base c) Aquaregia d) Sulphuric acid

II. Answer in one or two sentences: 5x2=10

5. What are acids?
6. Give the significance of pH of soil in agriculture.
7. What are the various uses of Aquaregia?
8. What is neutralization reaction? Give an example.
9. Write any two properties of bases.
10. Write True or False. If false correct the statement.
i) Tomato contains oxalic acid.
ii) Calcium Hydroxide is used in the manufacture of soap.

11. Match the following:

Column - A	-	Column-B
i) Hydrochloric acid	-	Medicine
ii) Magnesium Hydroxide	-	disinfectant
iii) Baking soda	-	Cleaning agent
iv) Bleaching Powder	-	Fire extinguisher

12. Complete the following:

Formula of Hydrated Salt	Name of Hydrated Salt
i) $\text{ZnSO}_4 \cdot 7\text{H}_2\text{O}$	_____
ii) _____	Iron (II) Sulphate Heptahydrate

III. Answer in brief:

1x4=4

13. i) Classify the various types of Acids based on their sources.

ii) Write any two uses of acids.

(or)

14. Classify the various types of bases based on Acidity.

IV. Answer in detail:

1x7=7

15. Give the tests to identify acids and Bases.

(or)

Write any five uses of salts.