

Chapter: 11 to 14

Q.1 (A) Write the correct alternative :

(5)

- 1) Dogs, Mouse, Dolphin have a special ability to hear
a. audible sound b. infra sound c. ultrasonic sound d. all of these
- 2) Sound cannot travel through
a. solids b. gases c. liquids d. vacuum
- 3) The % aqueous solution of salt is called brine.
a. 20 b. 25 c. 30 d. 50
- 4) The molecular formula of Methane is
a. C_2H_4 b. C_2H_6 c. C_2H_2 d. CH_4
- 5) If the reflected rays actually do not meet, then such an image is called
a. Real image b. Virtual image c. Plane image d. Inverted image

(B) Answer the following :

(5)

- 1) **Find the odd one out**
Density, Temperature, Pressure, Molecular weight.
- 2) **Complete the correlation :**
Fossil fuels: Petroleum :: : Carbohydrates.
- 3) **State True or False**
A concave mirror is used in head lamps of vehicles.
- 4) **Match the Columns :**

Column A	Column B
i. Fossil fuel	a Cotton
ii. Carbonaceous nutrients	b. Natural gas
	c. Fats

5) **Name the following**

Centre of the mirror surface.

Q.2 (A) Give scientific reasons (any two)

(4)

- 1) Soap forms a precipitate in hard water.
- 2) Density of CO_2 more or less than that of air.
- 3) The roof of a movie theatre and a conference hall is curved.

(B) Answer the following (any three) :

(6)

- 1) An object 2cm height is placed at a distance of 12 cm from a concave mirror which produces a real image of 4 cm height. Find the image distance.
- 2) State uses of SONAR.
- 3) Solubility of Carbon.

Take 3 conical flasks and add cooking oil, water and kerosene in each of them respectively. Add a half spoonful of coal powder in each of the conical flasks and stir with the help of stirrer. Observe the mixture in the three conical flasks.



- i. In which of the above solvents does the coal powder dissolve?
- ii. What inference will you draw about the above solubility?

4) Write a short note

Sonography

5) Distinguish between:

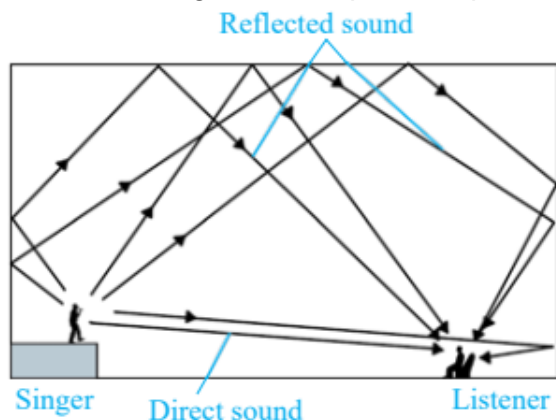
Diamond and Graphite

Q.3 Answer the following questions. (Any five)

(15)

- 1) Answer the following question:
 1. What is baking soda? Give its chemical name and molecular formula.
 2. state two use of Blue Vitriol.
 3. What is brine? What happens when 1/5 of this solution is evaporated?
- 2) An object of height 7 cm is kept at a distance of 25 cm in front of a concave mirror. The focal length of the mirror is 15 cm. At what distance from the mirror should a screen be kept so as to get a clear image? What will be the size and nature of the image?

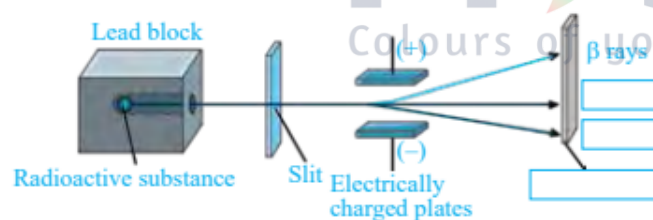
- 3) Observe the figure and explain the phenomenon.



- 4) The particles of powder are given an electric charge while spraying them to form the powder coating. Explain
- 5) How will you find out if a mirror is concave or convex?
- 6) Complete the following table regarding the information of Carbon.

Symbol	Atomic Number	Atomic mass	Electronic Configuration	Valency	Metallic/Non-Metallic

- 7) How is sonography misused? What is the necessary step to prevent it?
- 8) Answer the following questions based on the diagram given below.

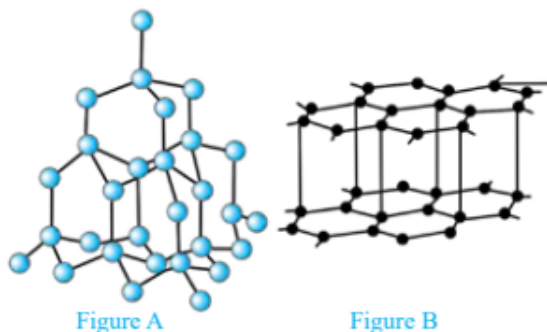


- a. Write the missing names in the boxes.
- b. Write one characteristic of each ray.
- c. Who discovered the above rays?

Q.4 Answer the following questions. (Any one)

(5)

- 1) Identify the following figures and explain.



- 2) With reference to Rutherford's experiment, answer the following questions.
- Name the radiations emitted by radium.
 - Name the positively charged rays.
 - Which rays do not deviate at all?
 - Draw a neat labelled diagram for this experiment.

