State Council of Educational Research and Training, Maharashtra, Pune 30

Bridge Course Post Test

Class : X **Subject: Science & Technology 01** **Marks : 12**

Time : 30 mins

Note : 1) All questions are compulsory.

2) The number to the right of the questions indicates marks.

3) Draw the exact, well labeled diagrams wherever necessary.

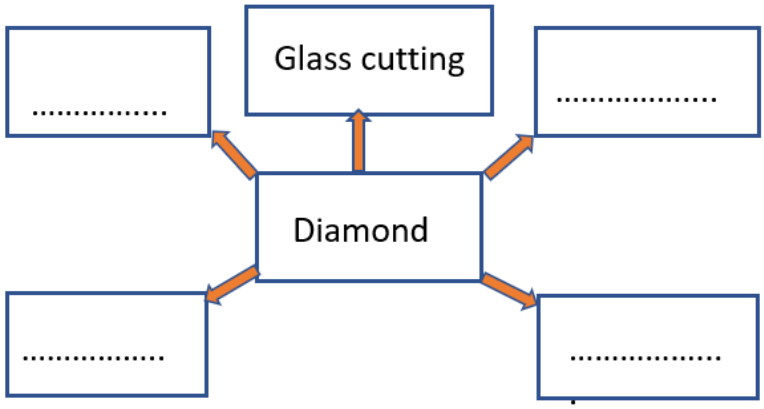
4) For each multiple choice question, only the correct option number should be written.

Q. 1) Solve the following questions. (Any 3) **2 Marks each**

1. Give scientific reason:

When a moving bus suddenly turns to the right, its passengers leans to the left.

2. Complete the following boxes.

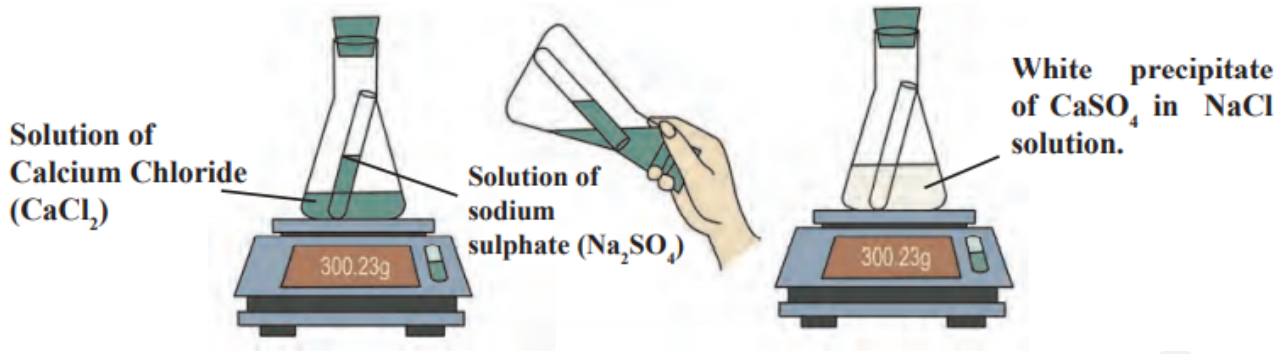


3. Distinguish between saturated and unsaturated hydrocarbons.

4. Complete the following chart.

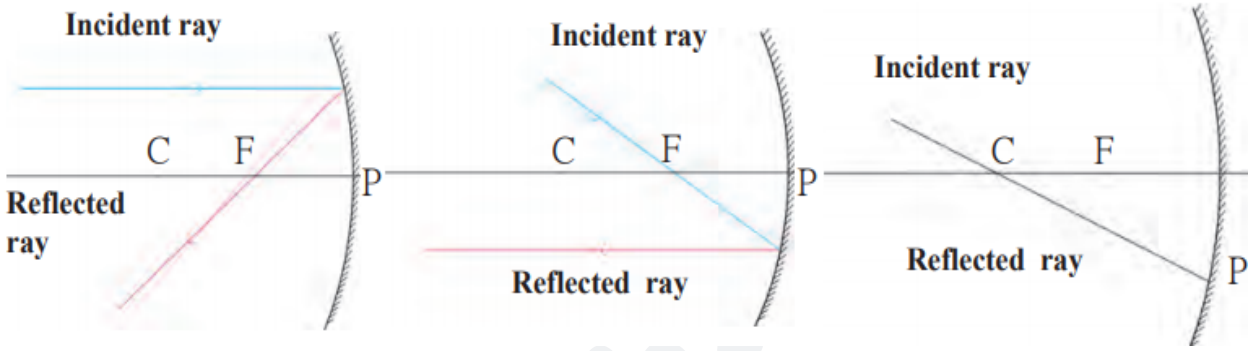
substance	Litmus		Methyl orange	Phenolphthalein
	Blue	Red		
Acid	_____	Red	pink	colorless
Base	Blue	_____	_____	_____

5. Identify which rule is understood by observing the following diagram and write the rule in your own words.



Q. 2) Answer the following questions. (Any 2) **3 Marks each**

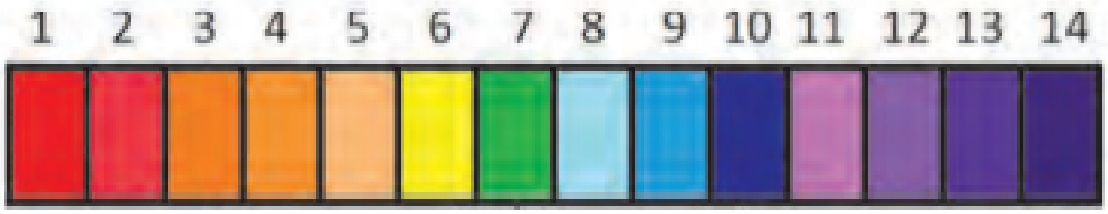
1) Observe the diagram and write the rules used for drawing ray diagrams.



2) Choose the correct word from the bracket and fill in the blacks given in a paragraph.
(20 Hz, infrasound, audible, 20000 Hz, ultrasound, lower)

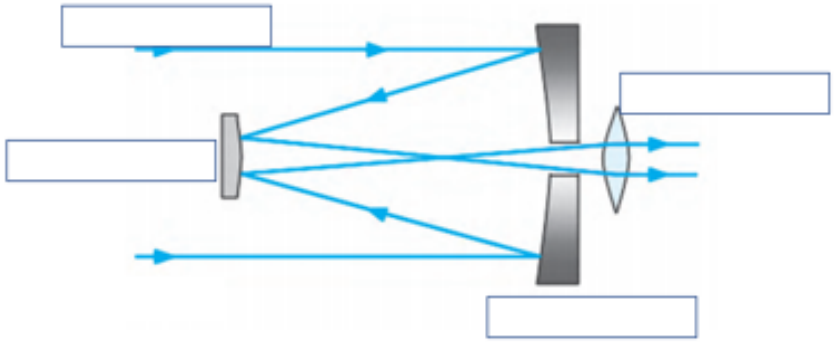
The limits of hearing of the human ear are _____ to 20,000 Hz. That is, the human ear can hear sounds of frequencies in this range. These sounds are called _____ sounds. Our ears cannot hear frequencies _____ than 20 Hz and higher than _____ 20 kHz. Sound with a frequency smaller than 20 Hz is called _____. The sound produced by a pendulum and the sound generated by the vibrations of the earth's crust just before an earthquake are examples of such sounds. Sound waves with frequency greater than 20 kHz are called _____.

3) Observe the picture given below and answer the questions.



i) What is the name of the strip in the picture? What is it used for?
ii) How is it determined whether the substance is acidic, basic or neutral?
iii) What is the pH value of neutral salts?

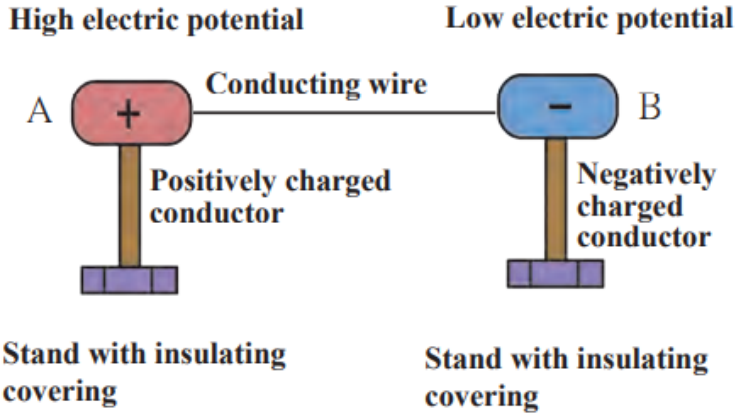
4) Observe the diagram given below and answer the questions.



i) What type of telescope is shown in a diagram?

ii) Label the main parts of the telescope.

5) Observe the diagram and answer the questions given below.



a) Which conductor is at higher potential?

b) What is the direction of flow of electrons through the wire?

c) When will the electrons flow through the wire stop?

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Class : X **Bridge Course Post Test** **Marks : 13**

Science and Technology Part 02 **Time : 30 Mins**

Instructions :
1. All questions are compulsory.
2. Figures to the right indicate full marks.
3. This test is based on activity sheets - 01 to 15
4. Draw Scientifically correct labeled diagrams.
5. Write ONLY the option number of the correct answer for each multiple-choice question. (eg. i - C)

Q 1 A) Choose the correct alternative. **02**

i) To bring about plant growth is the main function of _____ tissue.

A. Meristematic B. Epithelial C. Connective D. Sclerenchyma

ii) The network of capillaries in Bowman's capsule is called _____.

A. central canal B. axon C. glomerulus D. nephron

B) Answer whether following statements are true or false: **01**

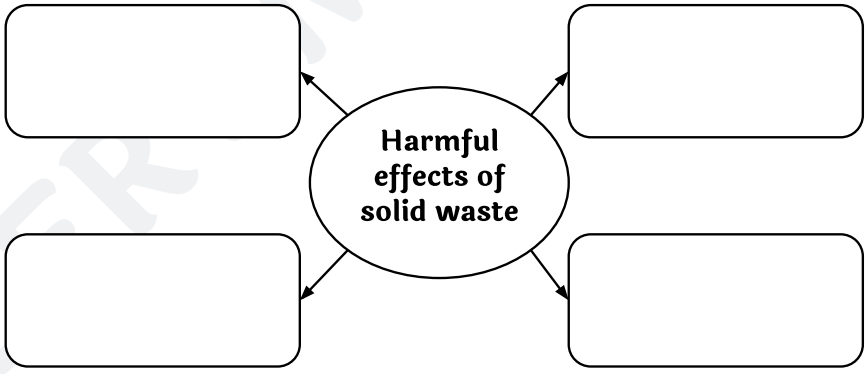
"In a monohybrid cross, the phenotypic ratio is 9 : 3 : 3 : 1."

Q.2 A) Answer the following. (Any one) **02**

i) Give the scientific reason.

If the kidneys get adversely affected, dialysis is required.

ii) Complete the flowchart.



iii) Identify the disorder shown in the figure and describe characteristics of this disorder.

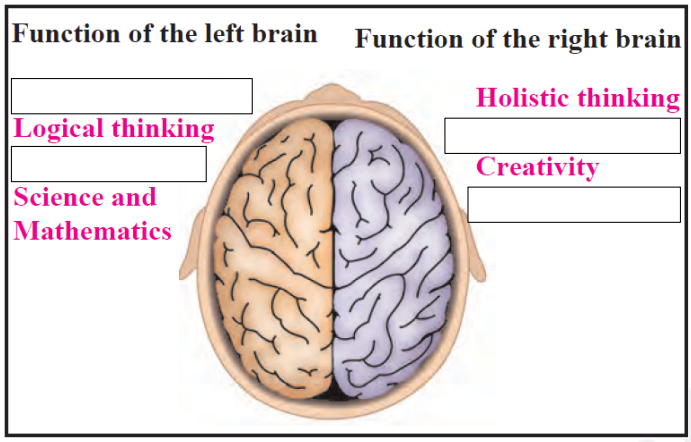
Q.2 B) Answer the following. (Any One) **02**

i. Distinguish between Monocots and Dicots.

ii. Define the following.

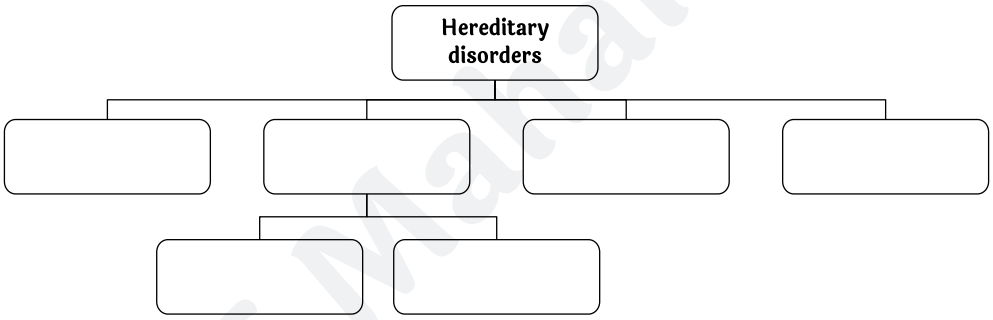
i. Antibiotics ii. D.N.A. finger - printing

iii. write the correct words in the box.



Q.3. Answer the following. (Any Two) **06**

i. Complete the tree diagram below based on the types of hereditary disorders.



ii. Explain in your own words with suitable examples :

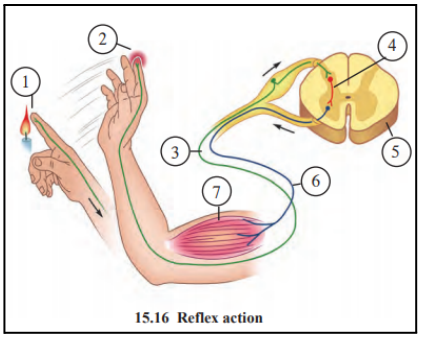
How is excretion in plants useful to human beings?

iii. Observe the figure carefully and answer the questions.

a. What is happening at 1 and 2 ?

b. Which is the nerve shown by 4 ?

c. At 7, where has the impulse reached ?



15.16 Reflex action

iv. Describe the structure of the DNA molecule with a suitable diagram.

v. Explain with suitable examples, the relationship between weather forecasting and disaster management.

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