

## MP BOARD CLASS 10 SCIENCE PREVIOUS YEAR PAPER

### SCIENCE- 2016

Class: 10th

**(i) All the questions are compulsory. (ii) Q. Nos 1 to 4 are objective type questions. Each question carries  $1 \times 5 = 5$  marks. Total marks are  $5 \times 4 = 20$ . (iii) Internal options are given in Q. Nos 5 to 18. (iv) marks of each question are indicated against it. (v) Answer Nos 5 to 8 in about 30 words each. (vi) Answer Q.Nos 9 to 13 in about 75 words each. (vii) Answer Q.Nos 14 to 16 in about 120 words each. (viii). Answer Q.Nos 17 and 18 in about 150 words each. (ix). Draw a neat and clean labelled diagram whenever required,**

1. Fill in the blanks:

$1 \times 5 = 5$

- (i) Chemical equilibrium is only possible in \_\_\_\_\_ vessel.
- (ii) The focal length of \_\_\_\_\_ mirror is infinity.
- (iii) Distilled water is a \_\_\_\_\_ of electricity.
- (iv) Fermentation reaction occurs in presence of \_\_\_\_\_.
- (v) The transportation of water and minerals in plants is done by \_\_\_\_\_.

2. Choose the correct alternative:

$1 \times 5 = 5$

- (i) The excretory organs of earthworm.  
(a) Liver      (b) Nephridia      (c) Lungs      (d) Skin.

- (ii) The metal which is stored in Kerosene Oil is  
(a) Iron (b) Copper (c) Sodium (d) Calcium.
- (iii) Saptarishi is  
(a) a comet (b) a constellation (c) a planet (d) a galaxy.
- (iv) The number of chromosomes found in a human cell is  
(a) 23 pairs (b) 24 pairs (c) 20 pairs (d) 22 pairs
- (v) The planet nearest to the sun is  
(a) Jupiter (b) Mercury (c) Saturn (d) Mars

3. Match the columns.

$1 \times 5 = 5$

‘A’

‘B’

- |                |                       |
|----------------|-----------------------|
| (i) Halley     | (a) Iron              |
| (ii) Bakelite  | (b) Methane           |
| (iii) Producer | (c) Star              |
| (iv) Heametite | (d) Green plants      |
| (v) Bio-gas    | (e) Synthetic plastic |
|                | (f) A comet.          |

4. Write the answer in one sentence each:

$1 \times 5 = 5$

- (i) Give the name of discoverer of blood groups.
- (ii) In which is the purity of gold expressed?
- (iii) What type of electric current flows in domestic circuits
- (iv) What is the name of respiratory organ of fish?
- (v) Which properties of plants are described in ‘Rig veda’?

5. What is the difference between real and imaginary (virtual ) images?

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(OR) What are the primary colours of pigments?

6. What is potential? Write its S.I. unit. 2  
(OR) Write Ohm's law.
7. What is denatured alcohol? 2  
(OR) Write the name of two enzymes used in alcohol preparation from molasses.
8. Differentiate between stars and planets. 2  
(OR) Write characteristics of terrestrial planets.
9. What is hypermetropia? Give its reasons. Explain with the help of a labelled ray diagram, how is it corrected? 4  
(OR) What is the difference between compound microscope and telescope?
10. What are the factors responsible for resistance of a conductor? 4  
(OR) What precautions should we have taken while using electricity?
11. Differentiate between nuclear fission and nuclear fusion. 4  
(OR) Describe fixed dome type biogas plant with diagram.
12. Describe the reproduction in Amoeba by binary fission method, with diagram. 4  
(OR) Why Mendel selected pea plant for his experiment? Write any four reasons.
13. Explain quick vinegar method with diagram. 4  
(OR) What is silver mirror test? Explain with chemical equation.
14. What do you mean by pH value? Give its importance. 5  
(OR) Write the chemical name, chemical formula, preparation method and two uses of plaster of Paris.
15. Write the difference between aerobic and anaerobic respiration. 5  
(OR) Explain the method of ingestion of food in Nepenthes (pitcher plant) with the help of diagram.
16. Describe the functions of blood. 5  
(OR) Explain the mechanism of reflex action with labelled diagram.

17. (a) Explain magnetic separation method of ore. 6  
(b) Explain froth floatation process.

(OR) Give description of extraction of sulphur by Frasch process with labelled diagram.

18. What is ozone layer? Write the substances affecting ozone layer and describe the harmful effects. 6

(OR) Write the medicinal importance of following plants:

- (i) Ginger (ii) Ashwagandha (iii) Pattarchatta  
(iv) Bel (iv) Bhringraj (v) Saunf