

Roll No. :

Total No. of Questions : 16

Total No. of Printed Pages : 8

C-5

XPWZJO15

6004-Y

SCIENCE-I

(PHYSICS AND CHEMISTRY)

Bi-Annual Class-10th

Session - October, 2015

Time : 2 hours

Maximum Marks : 56

(15 Minutes Extra for reading)

PHYSICS

(Long Answer Type Questions)

1. Give the nature, position and size of the image formed by a convex lens. When the object lies at $2F'$ and Focus F and optical centre O .

Or

Define Reflection. Explain the laws of reflection with a suitable diagram. 6

(Short Answer Type Questions)

2. Explain the working of human eye with the help of a well labelled diagram.

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P.T.O.

Or

Define Myopia. How is it corrected?

3. What is Ohm's Law? How can it be verified?

Or

What is meant by Electric Power? Give commercial unit of power.

4. What is a Solenoid? How does a solenoid behave like a bar magnet?

Or

What are the practical applications of the heating Effect of current.

4

(Very Short Answer Type Questions)

Answer the following questions in a few words or in a few sentences each :

5. What is Geothermal energy? 2
6. What is the difference between Real and Virtual images. 2
7. Define Electric current? Give its S.I. unit. 1

(Multiple Choice Type Questions)

Choose the correct/most appropriate answer in each of the following and write it in your answer-book :

(i) Message of image formation is conveyed to brain by :

(a) Cornea

(b) Yellow spot

(c) Optical nerve

(d) None of these.

1

(ii) Shaving mirrors are:

(a) Convex mirror

(b) Plane mirror

(c) Concave mirror

(d) Parabolic mirror.

1

(iii) Power of a lens is $-5D$ its focal length is :

(a) 20 cm

(b) -20 cm

(c) -0.2 m

(d) 5 cm.

(iv) L.P.G. is mostly liquified

(a) Hydrogen

(b) Oxygen

(c) Butane

(d) Methane.

CHEMISTRY

(Long Answer Type Questions)

9. Define Covalent bond. Draw the electronic structure of Hydrogen, Oxygen and Nitrogen and state the nature of bond formed in each.

Or

Draw the structures of the following

- (i) Ethanoic acid.
- (ii) Propane.
- (iii) Methanol.

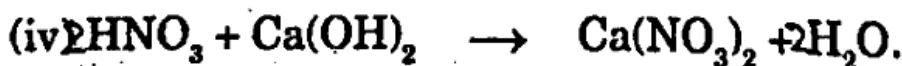
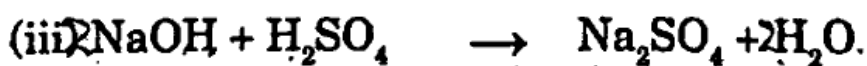
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(Short Answer Type Questions)

10. How is a chemical equation balanced? Discuss with the help of an example.

Or

Balance the following chemical equations :



4

11. Give the brief discussion of Mendeleev's classification of Elements.

Or

16.

What do you understand by Dobereiners, traids give two examples to support it?

4

12. What is Ionic or Electrovalent bond? How is it formed?

Or

What are the various methods used for refining of metals?

4

(Very Short Answer Type Questions)

Answer the following questions in a few words or in a few sentences each :

13. Explain why red Phosphorus is kept under water.

2

14. Name three allotropic forms of Carbon.

2

15. Define Strong acid and Weak base with suitable examples.

2

(Multiple Choice Type Questions)

16. Choose the correct/most appropriate answer in each of the following and write it in your answer-book :

(i) The Acid present in the stomach is

(a) HCl

(b) H_2SO_4

(c) HNO_3

(d) CH_3COOH .

1

(ii) The formula of lime stone is

(a) CaO

(b) $Ca(OH)_2$

(c) $CaCO_3$

(d) $CaSO_4$.

1

(iii) What is pH of blood

(a) 7

(b) 1

(c) 7.3

(d) 0.0

(iv) Formation of CuO from Copper and Oxygen denotes

(a) Reduction

(b) Oxidation

(c) Redox reaction

(d) None of these.
