

O. P. JINDAL SCHOOL, SAVITRI NAGAR
PERIODIC TEST-I (2023-24)

Class : X
Subject: Science

MM: 20
Time:1 Hr

General Instructions:-

- (i) All questions are compulsory .There are 12 questions in this question paper.
- (ii) **SECTION –A:**Question numbers 1 to 6 are MCQs , carrying 1 mark each.
- (iii)**SECTION –B:**Question numbers 7 to10 are short answer questions carrying 2 marks each.
- (iv)**SECTION –C:**Question numbers 11 and 12 are long questions carrying 3marks each.
- (v)Use of calculator is not permitted. However, you may use log tables, if necessary.

SECTION-A

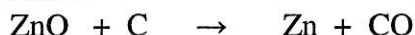
Q.1. The angle of incidence for a ray of light having zero reflection angle is

- (a) 0
- (b) 30°
- (c) 45°
- (d) 90°

Q.2. Magnification produced by a rear view mirror fitted in vehicles

- (a) is less than one
- (b) is more than one
- (c) is equal to one
- (d) can be more than or less than depending upon the position of the object in front of it.

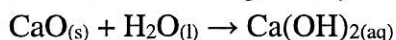
Q.3. The chemical reaction between Zinc Oxide and carbon to give Zinc and Carbon monoxide is given below:



The reduced species and oxidized species involved in this redox reaction are:

- (a) Zinc Oxide and Carbon respectively
- (b) Zinc and Carbon, respectively
- (c) Zinc Oxide and Carbon monoxide respectively
- (d) Carbon monoxide and Zinc, respectively

Q.4. Calcium oxide reacts vigorously with water to produce slaked lime.



This reaction can be classified as

- (A) Combination reaction
- (B) Exothermic reaction
- (C) Endothermic reaction
- (D) Oxidation reaction

Which of the following is a correct option?

- (a) (A) and (C)
- (b) (C) and (D)
- (c) (A), (C) and (D)
- (d) (A) and (B)

Q.5. The portion of the human respiratory tract called sound box is :

- (a) Larynx
- (b) Trachea
- (c) Bronchi
- (d) Pharynx

Q.6. The number of chambers present in human heart is:

- (a) One (b) Two
(c) Three (d) Four

SECTION-B

Q.7. Name the type of mirror used (i) by dentists and (ii) shaving mirrors. Give reasons why such mirrors are used in each.

Q.8.(i) Name the filtering unit of kidney and why is it called so?

(ii) What do you mean by the term double circulation?

Q.9.(i) Mention with reason, chemical equation and the colour changes observed when silver chloride is exposed to sunlight.

(ii) Lead nitrate solution is added to a test tube containing potassium iodide solution. Write the name and colour of the compound precipitated.

OR

(i) Why should Magnesium ribbon be cleaned before burning in air?

(ii) What happens when silver is added to copper sulphate solution?

Q.10. A compound 'A' is used in the manufacture of cement or white washing. When dissolved in water, it evolves a large amount of heat and forms compound 'B'.

(i) Identify A and B.

(ii) Write chemical equation for the reaction of A with water.

SECTION-C

Q.11.(i) Explain the term absolute refractive index of a medium and write an expression to relate it with the speed of light in vacuum.

(ii) The absolute refractive indices of two media 'A' and 'B' are 2.0 and 1.5 respectively. If the speed of light in medium 'B' is 2×10^8 m/s, calculate the speed of light in:

(i) vacuum (ii) medium 'A'.

OR

(i) What is linear magnification produced by lens?

(ii) Write when magnification is positive and equal to one. Draw ray diagram for this situation.

(iii) An object of size 2cm is kept at a distance of 20 cm in front of convex lens of focal length of 10 cm. Find the position of image and size of image.

Q-12. Explain the three pathways of breakdown of glucose in living organisms.

OR

Describe the events taking place in the process of photosynthesis.
