**O.P.JINDAL SCHOOL, SAVITRI NAGAR**

**PERIODIC TEST –I** (Round-1) **(2025-26)**

**CLASS-X** **MAX.MARKS-20**
**SUBJECT-SCIENCE** **MAX.TIME-1HOUR**

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**General Instruction:-**

(i)All questions are compulsory .There are 12 questions in this question paper with internal choice.

(ii) **SECTION –A:** Question numbers 1 to 6 is MCQs, carrying 1 mark each.

(iii) **SECTION –B:** Question numbers 7 to 10 are short answer questions carrying 2 marks each.

(iv) **SECTION –C:** Question numbers 11 and 12 are long questions carrying 3marks each.

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**SECTION A**

**Q1.** Given below are two column I and II of position of object and image for concave mirror. Choose the correct option .

| Column I<br>Position of object | Column II<br>Position of image |
|---|---|
| (i)At infinity | (p) Between F and C |
| (ii)At C | (q) Beyond C |
| (iii)Beyond C | (r) At infinity |
| (iv)Between C and F | (s) Behind the mirror |
| (v)At F | (t) At the Focus F |
| (vi)Between P and F | (u) At C |

(a) (i)-p, (ii)-q, (iii)-r, (iv)-s, (v)-s, (vi)-t
(b) (i)-q, (ii)-r, (iii)-s, (iv)-t, (v)-u, (vi)-p
(c) (i)-r, (ii)-q, (iii)-t, (iv)-u, (v)-p, (vi)-r
(d) (i)-t, (ii)-u, (iii)-p, (iv)-q, (v)-r, (vi)-s

**Q2.** The head mirror used by E.N.T doctors is
(a) Concave mirror (b) Convex mirror
(c) Plane mirror (d)Plano-convex mirror

**Q3.** The mole ratio of hydrogen and oxygen gases liberated during electrolysis of water is
(a)1:1 (b)2:1
(c)4:1 (d)1:2

**Q4.** Which is reducing agent in the reaction ?
$ZnO + C \longrightarrow Zn + CO$

(a)C
(b)Zn
(c)CO
(d)ZnO

**Q5.** The enzyme responsible for the digestion of proteins in the small intestine is:
(a) Pepsin
(b) Trypsin
(c) Amylase
(d) Lipase

**Q6.** The backflow of blood during the pumping of blood by heart is prevented by:
(a) Walls of ventricles
(b) Walls of the atrium
(c) Valves in the heart
(d) Walls between atria and ventricles

## SECTION B

**Q7.** (i)Draw a ray diagram to show the path of the reflected ray in each of the following cases. A ray of light incident on a convex mirror:
(a)strikes at its pole making an angle θ from the principal axis.
(b)is directed towards its focus.
(ii) List two properties of the images formed by convex mirrors.

**OR**

The linear magnification produced by a spherical mirror is -1. Analysing this value ,
(i) state the type of mirror
(ii) What will be the position of the object with respect to the pole of the mirror.
(iii)Draw any diagram to justify your answer

**Q8.** When potassium iodide solution is added to a solution lead(II) nitrate in a test tube , a precipitate is formed.
(i)What is colour of this precipitate? Name the compound precipitated.
(ii)Write the balanced chemical equation for this reaction

**OR**

What happens when a piece of
(i)zinc metal is added to copper sulphate solution ?
(ii)silver metal is added to copper sulphate solution?
Also, write the balanced chemical equation if the reaction occurs.

**Q9.** (i)Why is respiration considered an exothermic reaction?
(ii)Balance the following chemical equation :

$$Pb(NO_3)_2(s) \longrightarrow PbO(s) + NO_2(g) + O_2(g)$$

**Q10.** State the location and function of gastric glands.

**OR**

Give reasons:
(i) Ventricles have thicker muscular walls than atria.
(ii) Veins have valves whereas arteries do not.

## SECTION C

**Q11.** (i)An object is placed at a distance of 30 cm from a convex mirror; the magnification produced is 1/2. Where the object should be placed to get the magnification of 1/3?

(ii)Define focus for a concave mirror. Draw ray diagram for it.

**OR**

The image formed by a spherical mirror is real, inverted and its magnification is -2. If the image is at a distance of 30 cm from the mirror, then

(a)where is the object placed?

(b)Find the focal length of the mirror.

(c)List two characteristics of the image formed if the object is moved 10 cm towards the mirror.

**Q12.** (i)Draw a flow chart showing the three different pathways involved in the breakdown of glucose in different organisms.

(ii)Name the respiratory pigment present in human beings.

(iii)State the function of rings of cartilage present in our throat.

**OR**

Explain with the help of neat and well labelled diagrams the different steps involved in nutrition in Amoeba.

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