

164

ROLL NUMBER				
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SET A



INDIAN SCHOOL MUSCAT

FIRST PERIODIC TEST

SCIENCE

CLASS: X

Sub.Code: 086

Time Allotted: 50mts.

17.04.2023

Max .Marks: 20

GENERAL INSTRUCTIONS:

1. All Questions are compulsory.
2. Draw Diagram wherever necessary

1. Define principal focus of a concave mirror. 1
2. Calculate the focal length of a concave mirror whose radius of curvature is 20 cm. 1
3. The angle between incident ray and reflected ray is 60° . What is angle of incidence? 1
4. Draw a ray diagram to show the formation of image, when an object is placed at the centre of curvature (C) of a concave mirror. Mention the position and nature of the image. 2
5. Draw a ray diagram to show the path of the reflected ray in each of the given cases. A ray of light incident on a convex mirror. 2
 - (a) strikes at its pole making an angle θ from principal axis.
 - (b) is parallel to principal axis.

6. Which of the following observation help(s) us to determine that a chemical change has taken place? 1

- (a) Change in temperature (b) Change in colour
(c) Evolution of gas (d) All of these

7. Digestion of food is an example of ----- reaction. 1

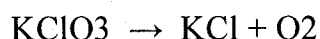
8. The following question consists of two statements – Assertion (A) and Reason (R). Answer these questions selecting the appropriate option given below: 1

- (a) Both A and R are true and R is the correct explanation of A.
(b) Both A and R are true but R is not the explanation of A.
(c) A is true but R but R is false.
(d) A is false but R is true

Assertion: White silver chloride turns grey in sunlight.

Reason: Decomposition of silver chloride in presence of sunlight takes place to form silver metal and chlorine gas.

9. a. Why is it necessary to balance a chemical equation? 2
b. Balance the following chemical equation:



10. a. State any two observations when Quick lime is treated with water. 2
b. Define the type of reaction involved here.

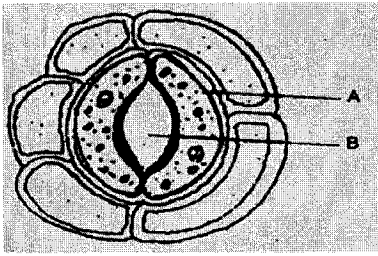
11. In which mode of nutrition an organism derives its food from the body of another living organism without killing it? 1

- a. Autotrophic b. Heterotrophic c. Saprophytic d. Parasitic

12. Autotrophs and heterotrophs are two different organisms with distinct modes of nutrition state. How are they different from each other? 2

13.

3



- a) Label the parts A and B marked in the diagram.
 - b) What is the function of the part A marked in the diagram?
 - c) Define the term 'transpiration'.
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Q/V/6/14

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SET B



INDIAN SCHOOL MUSCAT

FIRST PERIODIC TEST

SCIENCE

CLASS: X

Sub.Code: 086

Time Allotted: 50mts.

17.04.2023

Max .Marks: 20

GENERAL INSTRUCTIONS:

1. All Questions are compulsory.
2. Draw Diagram wherever necessary

1. Calculate the focal length of a concave mirror whose radius of curvature is 34 cm. 1
2. The angle between incident ray and reflected ray is 60° . What is angle of incidence? 1
3. Define radius of curvature of a concave mirror. 1
4. Draw a ray diagram to show the path of the reflected ray in each of the given cases. A 2
ray of light incident on a convex mirror.
(a) is parallel to its principal axis.
(b) is directed towards its principal focus.
5. Draw a ray diagram to show the formation of image, when an object is placed at the 2
centre of curvature (C) of a concave mirror. Mention the position and nature of the
image.

6. What is the name of reaction which decomposes in the presence of sunlight? 1
- (a) Combination reaction (b) Thermal decomposition
(c) Displacement reaction (d) Photolytic Decomposition

7. The electrolytic decomposition of water gives H_2 and O_2 in the ratio of _____ by volume. 1

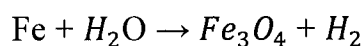
8. The following question consists of two statements – Assertion (A) and Reason (R). Answer these questions selecting the appropriate option given below: 1

- (a) Both A and R are true and R is the correct explanation of A.
(b) Both A and R are true but R is not the explanation of A.
(c) A is true but R is false.
(d) A is false but R is true

Assertion: When HCl is added to Zinc granules, a chemical reaction occurs.

Reason: Evolution of a gas and change in colour indicate that the chemical reaction is taking place.

9. Write any two observations when lead nitrate is heated. Identify the type of reaction. 2
10. a. Decomposition reaction is the opposite of Combination reaction. Justify with an example. 2
- b. Balance the following Chemical reaction:



11. The site of photosynthesis in the cells of a leaf is 1
- a. Mitochondria b. Chloroplast c. Cytoplasm d. Nucleus
12. What do you mean by saprophytic mode of nutrition? Name two organisms that obtain food through saprophytic nutritive strategy. 2

13. a) Define photosynthesis.

3

b) List out the various events in photosynthesis.

c) What are stomata? What governs the opening and closing of stomata?

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SET C



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FIRST PERIODIC TEST

SCIENCE

CLASS: X

Sub.Code: 086

Time Allotted: 50mts.

17.04.2023

Max .Marks: 20

GENERAL INSTRUCTIONS:

1. All Questions are compulsory.
2. Draw Diagram wherever necessary

1. The angle between incident ray and reflected ray is 60° . What is angle of incidence? 1
2. Calculate the focal length of a concave mirror whose radius of curvature is 20 cm. 1
3. Define principal focus of a concave mirror. 1
4. Draw a ray diagram to show the path of the reflected ray in each of the given cases. A ray of light incident on a convex mirror. 2
 - (a) Strikes at its pole making an angle θ from principal axis.
 - (b) is parallel to principal axis.
5. Draw a ray diagram to show the formation of image, when an object is placed at the centre of curvature (C) of a concave mirror. Mention the position and nature of the image. 2
6. $N_2 + 3 H_2 \rightarrow 2 NH_3$ 1

The above reaction represents:

- (a) Combination reaction (b) Displacement reaction
(c) Decomposition reaction (d) Neutralization reaction

7. The following question consists of two statements – Assertion (A) and Reason (R). Answer these questions selecting the appropriate option given below: 1

- (a) Both A and R are true and R is the correct explanation of A.
(b) Both A and R are true but R is not the explanation of A.
(c) A is true but R is false.
(d) A is false but R is true

Assertion: Calcium carbonate when heated gives Calcium oxide and water.

Reason: On heating Calcium carbonate, decomposition reaction takes place.

8. Electrolysis of water is a ----- reaction. 1

9. When the light green crystals of a hydrated salt (A) is heated, they change their colour to reddish brown (X) along with the evolution of pungent smelling gases (Y) and (Z). 2

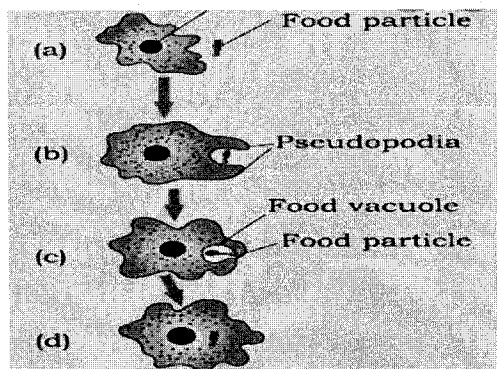
Identify A, X, Y and Z

10. (a) The solution of slaked lime which is used to whitewash the walls give a white shiny finish. Give a reason for this phenomenon. 2
(b) Silver bromide is always kept in a dark- coloured bottle. Why?

11. The mode of nutrition found in fungi is 1
a. Saprophytic b. Parasitic c. Autotrophic d. None of these

12. a) Where do plants get each of the raw materials required for photosynthesis? 2
b) Name the small pores through which transpiration takes place in leaves.

13. 3



- a) Identify the diagram.
- b) List out the events happening in (b) & (c) marked in the diagram.
- c) Name the mode of nutrition the organism performs in the diagram.

