



INDIAN SCHOOL MUSCAT

FIRST PERIODIC ASSESSMENT

SCIENCE

CLASS: X

Sub. Code: 086

Time Allotted: 50 mts

10.04.2019

Max. Marks: 20

GENERAL INSTRUCTIONS:

- All Questions are compulsory.
- Draw diagrams if necessary.

PHYSICS

1. Name the type of mirror that should be used to obtain
 - a) a magnified and virtual image. 1
 - b) a diminished and virtual image.
2. Distinguish between real and virtual images. 2
3. A Concave mirror produces three times (enlarged) magnified real image of an object placed at 10cm in front of it. Where is the image located? 2
4. Draw ray diagram showing the image formation by a concave mirror when an object is placed at the center of curvature. 2

CHEMISTRY

5. Why is it necessary to balance a chemical equation? 1
6. Differentiate between combination reaction and decomposition reaction. 2
7. A white salt on heating decomposes to give brown fumes and a residue is left behind. 2
 - a) Name the salt and the brown fumes.
 - b) Write the balanced chemical equation involved for the reaction.
8. Balance the following chemical equations and identify the type of reaction in each case. 2
 - a) $\text{KClO}_3 \rightarrow \text{KCl} + \text{O}_2$
 - b) $\text{Al} + \text{CuCl}_2 \rightarrow \text{AlCl}_3 + \text{Cu}$

BIOLOGY

9. What are the raw materials needed for photosynthesis? 1
10. Differentiate the function of villi in large intestine and small intestine. 1
11. Where are stomata located in plants? Write one function of stomata. How the opening and closing of stomatal pore regulated? 2
12. Define emulsification. Mention two functions of Hydrochloric acid in digestion. 2

End of the Question Paper



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PHYSICS

1. Why do we prefer a convex mirror as a rear-view mirror in vehicles? 1
2. What are the laws of reflection? Also mark the angle of incidence and the angle of reflection when light ray is incident obliquely on a plane mirror. 2
3. A 4.5cm needle is placed 12cm away from a convex mirror of focal length 15cm. Give the location of image and magnification. 2
4. Draw ray diagram showing the image formation by a concave mirror When an object is placed between pole and focus of the mirror. 2

CHEMISTRY

5. What changes do you observe in the iron nails and color of copper sulfate solution, if iron nails are dipped in CuSO_4 solution for 30 minutes? 1
6. Distinguish between a displacement reaction and a double displacement reaction. 2
7. In electrolysis of water : 2
 - (a) Name the gas collected at cathode and anode.
 - (b) Why is volume of one gas collected at one electrode double of another?
8. Balance the following chemical equations and identify the type of reaction in each case. 2
 - a) $\text{AgBr} \xrightarrow{\text{sunlight}} \text{Ag} + \text{Br}_2$
 - b) $\text{BaCl}_2 + \text{Na}_2\text{SO}_4 \rightarrow \text{BaSO}_4 + \text{NaCl}$

BIOLOGY

9. Write two importance of chewing of food inside the mouth. 1
10. Write the main product of photosynthesis. Write its stored form in plants. 1
11. Where are stomata located in plants? Write one function of stomata. Why the stomata usually remain closed in desert plants during day? 2
12. Define peristalsis. Name the enzymes present in pancreatic juice. 2

End of the Question Paper



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PHYSICS

1. The magnification produced by a plane mirror is +1. What does this mean? 1
2. Draw ray diagram showing the image formation by a concave mirror When an object is placed at the center of curvature. 2
3. Distinguish between real and virtual images. 2
4. An object, 4 cm in size, is placed at 25 cm in front of a concave mirror of focal length 15 cm. At what distance from the mirror should a screen be placed in order to obtain a sharp image? 2

CHEMISTRY

5. What changes do you observe in the iron nails and color of copper sulfate solution, if iron nails are dipped in CuSO_4 solution for 30 minutes? 1
6. Ferrous sulfate crystals are heated in a dry boiling tube. 2
 - a) List any two observations.
 - b) Write the chemical equation for the reaction involved.
7. Differentiate between combination reaction and decomposition reaction. 2
8. Balance the following chemical equations and identify the type of reaction in each case. 2
 - a) $\text{KClO}_3 \xrightarrow{\text{Heat}} \text{KCl} + \text{O}_2$
 - b) $\text{Pb}(\text{NO}_3)_2 + \text{HCl} \rightarrow \text{PbCl}_2 + \text{HNO}_3$

BIOLOGY

9. Photosynthesis and respiration take place side by side in plants. Write any one difference between these two processes. 1
10. Why should food be chewed properly before swallowing? 1
11. Stomatal pore performs the function of exchange of gases in plants. Name the cells that protect stomata. Why is it closed in time during day time? Mention any other function of stomata. 2
12. Name the bio-catalyst produced by the glands inside the stomach. Write its function. Write the importance of Liver in digestion. 2

End of the Question Paper