

## CBSE MIXED TEST PAPER-02

(First Term Test)

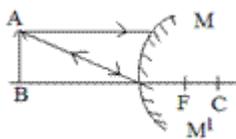
### CLASS - X SCIENCE & TECHNOLOGY

[Time : 1.50 hrs.]

[M. M.: 40]

**Note:- All questions are compulsory.**

1. Why is respiration considered an exothermic reaction? 1-mark
2. What is rancidity? 1-mark
3. How is small intestine designed to absorb digestive food? 1-mark
4. Name the respiratory pigment which has very high affinity for oxygen in Human beings. 1-mark
5. Define 1 dioptre of power of a lens, 1-mark
6. Complete the following Ray diagram. 1-mark



7. A solution of a substance X is used for white washing: 2-marks
  - (a) Name the substance X and write its formula.
  - (b) Write the reaction of the substance X named in (a) above with water.
8. How are water and minerals transported in plants? 2-marks
9. Draw the ray diagram of image formation in a convex lens when the object is at 2-marks  
:
  - (a) Beyond 2F
  - (b) Between F and O (optical centre)
10. Which of the following lenses would you prefer to use while reading small 2-marks

letters in dictionary?

- (a) A convex lens of focal length 50 cm.
- (b) A concave lens of focal length 50 cm.
- (c) A convex lens of focal length 5 cm.
- (d) A concave lens of focal length 5 cm.

11. What are the differences between autotrophic and heterotrophic nutrition? 2-marks
12. Define refractive index. What is the refractive index of (a) air (b) water? 2-marks
13. What are differences between aerobic and anaerobic respiration? 2-marks
14. How are the lungs designed in human beings to maximize the area for exchange of gases? 2-marks
15. Write the balanced equations for the following chemical reactions: 3-marks
- (a) Hydrogen + Chlorine  $\rightarrow$  Hydrogen Chloride
  - (b) Barium chloride + Aluminium sulphate  $\rightarrow$  Barium sulphate + Aluminium chloride
  - (c) Calcium Hydroxide + Carbon dioxide  $\rightarrow$  Calcium carbonate + Water
16. Give the flow chart for the breakdown of glucose of various pathways. 3-marks
17. Draw a well-labelled diagram of the human heart. 3-marks
18. An object 4.0 cm in size is placed at 25.0 cm in front of a concave mirror of focal length 15.0 cm. At what distance from the mirror should a screen be placed in order to obtain a sharp image. Find the nature and size of the image. 3-marks
19. Name the type of mirror used in the following situations: 3-marks
- (a) Head lights of a car.
  - (b) Side/rear view mirror of a vehicle.
  - (c) Solar furnace.
20. Give an activity to show decomposition reaction. 3-marks