

Class 10 science lab Skill March BOARD EXAM_JSUNIL

TEST PAPER_02 MCQ questions for class 10 science practical

1. A student puts a drop of acetic acid first on a blue litmus paper and then on a red litmus paper. He would observe that

- (A) the red litmus paper turns colourless and there is no change in the blue litmus paper.
- (B) the red litmus paper turns blue and the blue litmus paper turns red.
- (C) there is no change in the red litmus paper and the blue litmus paper turns red. ✓
- (D) there is no change in the blue litmus paper and the red litmus paper turns blue.

2. While studying saponification reactions, the following comments were noted down by the students :

- (I) Soap is a salt of fatty acids.
- (II) The reaction mixture is basic in nature.
- (III) In this reaction heat is absorbed.
- (IV) This reaction is not a neutralisation reaction.

Which of these are the correct comments ? (A) I and III only (B) I, II and III (C) II, III and IV (D) I and II only ✓

3. A student takes 4 mL of distilled water in each of four test tubes I, II, III and IV, and then dissolves an equal amount of four different salts namely NaCl in I, CaCl₂ in II, MgCl₂ in III and KCl in IV. He then adds 8 drops of the given soap solution to each test tube and shakes the contents of the test tube 10 times. In which test tubes will enough lather (foam) be formed ? (A) I and II (B) II and III (C) I and IV ✓ (D) III and IV

4. A student is asked to study the different parts of an embryo of pea seeds. Given below are the essential steps for the experiment :

- (I) Soak the pea seeds in plain water and keep them overnight.
- (II) Cut open the soaked seed and observe its different parts.
- (III) Take some pea seeds in a petri dish.
- (IV) Drain the excess water. Cover the seeds with a wet cotton cloth and leave them as it is for a day.

The correct sequence of these steps is (A) III, I, IV, II ✓ (B) III, IV, I, II (C) III, I, II, IV ✓ (D) III, II, I, IV

5. In a class, students were asked to observe the models/slides/pictures of the skeletons of forelimbs and wings of different organisms. After the observations the students made the following groups of homologous structures.

Select the correct group :

- (A) Wings of a bird and a butterfly (B) Wings of a pigeon and a bat
- (C) Wings of a butterfly and a bat (D) Forelimbs of a cow, a duck and a lizard ✓

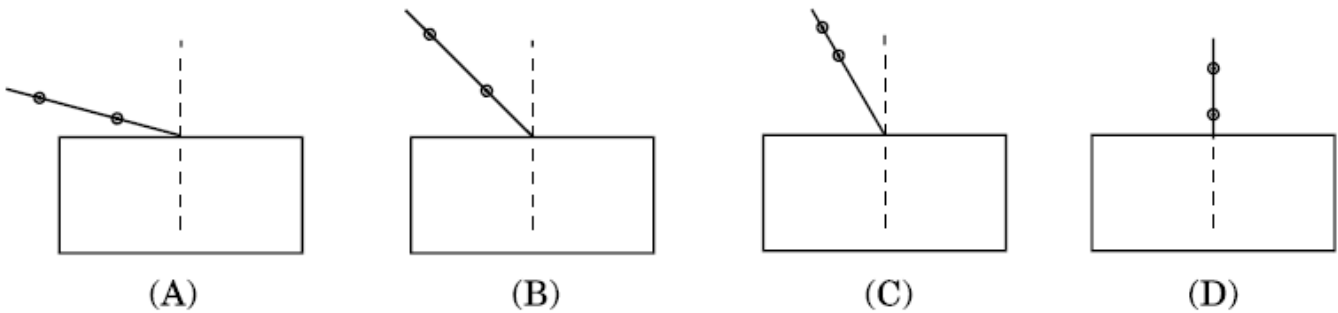
6. A student obtained on a screen the sharp image of a candle flame placed at the farther end of laboratory table using a concave mirror. For getting better value of focal length of the mirror, the teacher suggested to him to focus the sun. What should the student do ?

- (A) Should move the mirror away from the screen. (B) Should move the mirror towards the screen. ✓
- (C) Should move the mirror and screen both towards the sun. (D) Should move only the screen towards the sun.

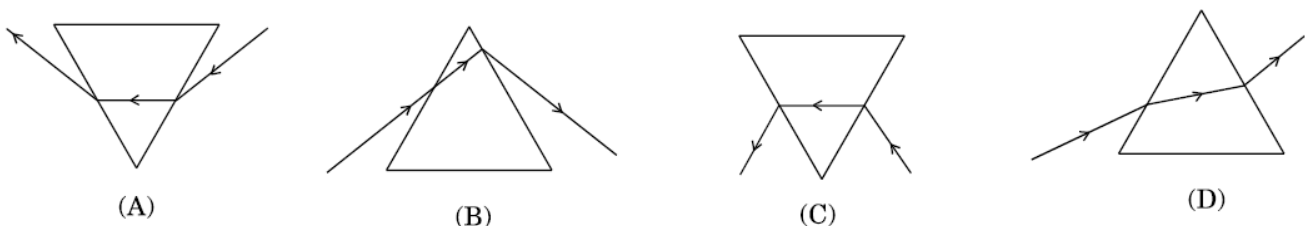
7. While determining the focal length of a convex lens, you try to focus the image of a distant object formed by the lens on the screen. The image formed on the screen, as compared to the object, should be

- (A) erect and highly diminished (B) erect and enlarged
- (C) inverted and enlarged (D) inverted and highly diminished ✓

8. Which of the following is the best experimental set-up out of the four shown for tracing the path of a ray of light passing through a rectangular glass slab ? ans (b)



9. In which of the following four diagrams is the correct path of a ray of light passing through a glass prism shown ?



Answer Test paper -2 : (1) C (2) D (3) C (4) A (5) D (6) B (7) D (8) B (9) A

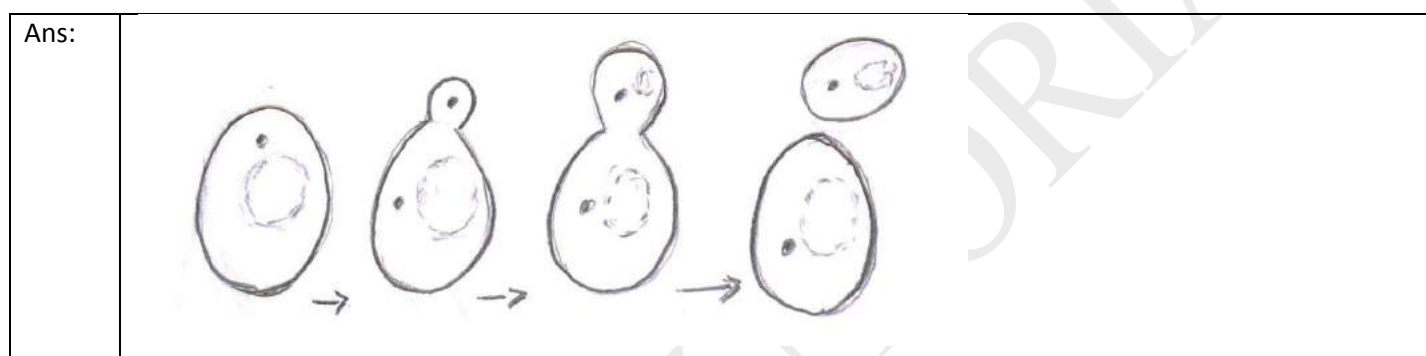
10. A student is studying the properties of acetic acid. List two physical properties of acetic acid he observes. What happens when he adds a pinch of sodium hydrogen carbonate to this acid ? Write any two observations.

Ans: Acetic acid is a colorless liquid. $\frac{1}{2}$ It is miscible / soluble in water. $\frac{1}{2}$ (or any other physical property)

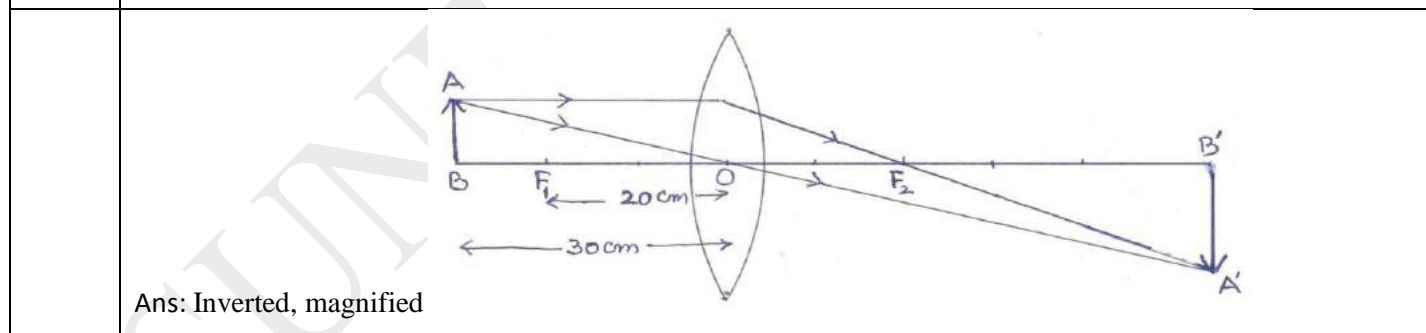
On adding a pinch of sodium hydrogen carbonate, Brisk effervescence is observed. $\frac{1}{2}$

Evolution of a colorless / odourless gas. $\frac{1}{2}$

11. A student is viewing under a microscope a permanent slide showing various stages of asexual reproduction by budding in yeast. Draw diagrams of what he sees (in proper sequence).



12. A student places a 8.0 cm tall object perpendicular to the principal axis of a convex lens of focal length 20 cm. The distance of the object from the lens is 30 cm. He obtains a sharp image of the object on a screen placed on the other side of the lens. What will be the nature (inverted, erect, magnified, diminished) of the image he obtains on a screen ? Draw ray diagram to justify your answer.



13. When you study a slide showing different stages of budding in a yeast, you observe the following stages :

I. The bud may get separated from the parent body and develop into a new individual.

II. The body of the bud develops and gives rise to another baby bud.

III. A bud comes out in any direction from the body of the parent cell.

IV. Thus they may form a colony.

The proper sequence of the above stages is (A) II, I, III, IV (B) II, III, I, IV (C) III, II, I, IV (D) III, I, II, IV

Ans: C