

NEW STANDARD ACADEMY

Semri Kothi Super Market, Raebareli

CLASS 10 (Academy) 12-05-2025

PHYSICS

1. Why does a ray of light bend towards the normal when it enters from air in a glass slab and bends away from the normal when it emerges out into air?
2. Draw the path of a ray when it enters perpendicular to the surface of a glass slab.
3. Which type of lens is used by watch-makers while repairing fine parts of a wrist watch?
4. Can this method be used to find the approximate focal length of a concave lens?
5. A concave lens has focal length 30 cm. If image is formed at a distance 10 cm from the lens, find the position of object. Calculate the magnification produced by the lens also.

CHEMISTRY

1. What is the reaction called when an acid reacts with a base to produce salt and water?
2. A substance turns red litmus blue. What is the nature of the substance?
3. Which gas is evolved when sodium hydrogen carbonate is treated with hydrochloric acid?
4. What do you mean by the basicity of an acid?
5. Define a base. What do you understand by the acidity of a base?

BIOLOGY

1. How many chambers present in heart give the name
2. Draw labelled diagram of heart
3. What is function of heart
4. What is the difference in pulmonary artery and pulmonary vein
5. What is SAN in heart

MATH

1. The sum of the reciprocals of Rehman's ages (in years) 3 years ago and 5 years from now is $\frac{1}{3}$. Find his present age.
2. If Zeba were younger by 5 years than what she really is then the square of her age (in years) would have been 11 more than five times her actual age. What is her age now?
3. A shopkeeper buys some books for ₹80. If he had bought 4 more books for the same amount each book would have cost ₹1 less. Find the number of books he bought.
4. *O Girl!* Out of a group of swans, $\frac{7}{2}$ times the square root of the number are playing on the shore of a tank. The two remaining ones are playing in the water. What is the total number of swans?
5. A train travelling at a uniform speed for 360 km would have taken 48 minutes less to travel the same distance if its speed were 5 km/h more. Find the original speed of the train.