

NEW STANDARD ACADEMY

Semri Kothi Super Market, Raebareli

CLASS 10 (Academy) 23-06-2025

PHYSICS

1. What is the range of vision for a normal human eye?
2. Name the two phenomena involved in the formation of rainbow.
3. Name the component of white that deviates the least and the most while passing through a prism.
4. A person is advised to wear spectacles with concave lenses. What type of defect of the vision is he suffering from?
5. Name the part responsible for the power of accommodation of the eye.

CHEMISTRY

1. Name the acid-base indicator extracted from lichen.
2. What are acid-base indicators? Explain with examples.
3. Which gas is liberated when an acid reacts with a metal? How will you test this gas?
4. What are olfactory indicators? Explain with examples.
5. Which gas is liberated when an acid reacts with a metal carbonate or metal hydrogen carbonate? How will you test this gas?

BIOLOGY

1. What are the functions of the following parts of a neuron:
(i) Dendrites: (ii) Axon: (iii) Cell body:
2. Give the difference between dendron and axon
3. What is the synapsis in nervous system
4. What is the neuron, draw labelled diagram
5. What is the sensory neuron

MATH

1. What is the greatest number that will divide 63, 138 and 228 so as to leave the same remainder in each case?
2. Which of the following is rational ?
(i) $\sqrt{12 \times 1728}$ (ii) $\frac{5\sqrt{2}}{2\sqrt{5}}$
3. What is the smallest number by which $\sqrt{5} - \sqrt{3}$ is to be multiplied to make it a rational number? Also find the number so obtained?

4. Prove that $\sqrt{3}$ is an irrational number
5. Prove that $\sqrt{2} + \sqrt{5}$ is irrational.
6. Show that $\frac{2+3\sqrt{2}}{7}$ is not a rational number, given that $\sqrt{2}$ is an irrational number.
7. Show that $\frac{17}{625}$ is a terminating decimal. Express it in decimal form.
8. Prove that $(\sqrt{n-1} + \sqrt{n+1})$ is irrational, for every $n \in \mathbb{N}$.
9. Prove that $\frac{1}{\sqrt{3}}$ is an irrational number
10. If \sqrt{ab} is an irrational number, prove that $(\sqrt{a} + \sqrt{b})$ is an irrational number.