

NEW STANDARD ACADEMY

Exam

NEET - JEE

Marks: 60

Date : 26-06-23

CLASS : 10TH

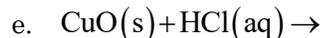
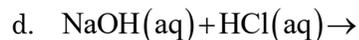
Time: 90:MIN

PHYSICS

1. Which part of the eye controls the amount of light entering the eye?
2. How is the sense of vision carried from the eye to the brain?
3. When you enter from a bright sunshine into a dark room, you are not able to see clearly for sometime, why?
4. Name the part of the human eye that helps in changing the focal length of the eye lens
5. Draw a neat labelled diagram of the structure of the human eye and mention the functions of any four parts.
6. A person cannot see the objects distinctly, when placed at a distance less than 50 cm. (a) Identify the defect of vision. (b) Give two reasons for this defect. (c) Calculate the power and nature of the lens he should be using to see clearly the object placed at a distance of 25 cm from his eyes. (d) Draw the ray diagrams for the defective and the corrected eye.
7. A person with a defective eye - vision is unable to see the objects nearer than 1.5 m. He wants to read books at a distance of 30 cm. Find the nature, focal length and power of the lens he needs in his spectacles.

CHEMISTRY

8. Name an indicator which is red in acid solution but turns blue in basic solution.
9. When a solution is added to vanilla extract, then the characteristic smell of vanilla cannot be detected. State whether the given solution is an acid or a base.
10. How will you test for the gas which is liberated when hydrochloric acid reacts with an active metal?
11. How is the concentration of hydronium ions (H_3O^+) affected when the solution of an acid is diluted?
12. Complete and balance the following chemical equations:
 - a. $\text{Zn(s)} + \text{HCl(aq)} \rightarrow$
 - b. $\text{Na}_2\text{CO}_3(\text{s}) + \text{HCl(aq)} \rightarrow$
 - c. $\text{NaHCO}_3(\text{s}) + \text{HCl(aq)} \rightarrow$



13. While diluting an acid, why is it recommended that the acid should be added to water and not water to the acid?

BIOLOGY

14. What are components of blood and what is the functions of each ?
15. Groups of animal the heart pumps only deoxygenated blood ?
16. Explain the structure of neuron with the help of a labelled diagram.
17. Enumerate functions of kidney.
18. How are plants able to manage their waste products ?
19. Write a short note on secretion.
20. Explain the structure of nephron with the help of a labelled diagram.

MATHS

21. Has the rational number $51/1500$, a terminating or a non-terminating decimal representation?
22. HCF and LCM of two numbers is 9 and 108 respectively. If one of the numbers is 36, find the other number.
23. What is the condition for the decimal expansion of a rational number to terminate? Explain with the help of an example.
24. If HCF of 144 and 180 is expressed in the form $13m - 3$, find the value of m .
25. Find the HCF by Euclid's division algorithm of numbers 92690, 7378 and 7161.
26. By what number should 1365 be divided to get 31 as quotient and 32 as remainder ?
27. The HCF of two numbers is 23 and their LCM is 1449. If one of the numbers is 161, find the other.
28. Three sets of English, Mathematics and Science books containing 336, 240 and 96 books respectively have to be stacked in such a way that all the books are stored

subject wise and the height of each stack is the same. How many stacks will be there ?

29. Given that L.C.M. (150, 100) = 300, find H.C.F. (150, 100)

30. Explain why $7 \times 11 \times 13 + 13$ and

a. $7 \times 6 \times 5 \times 4 \times 3 + 5$ are composite numbers.

