

NEW STANDARD ACADEMY

DPP -03

NEET - JEE
CLASS : 9TH

PHYSICS

1. Define force.
2. What is frictional force?.
3. What is inertia?.
4. State Newton's first law of motion.
5. State Newton's second law of motion

CHEMISTRY

1. What is humidity?
2. Give the temperature at which water exists in two different phases/states.
3. What happens if you put copper sulphate crystals in water?
4. Name any two substances which sublime.
5. Which is the slow process, evaporation or boiling?

BIOLOGY

1. What is the function of chromosome?.
2. Name the organelles present in liver of animals which detoxifies many poisons and drugs.
3. What are ribosomes? Where are ribosomes located in the cell? What is their function?.
4. Which cell organelle is known as the 'suicidal bags' of a cell? Why?.
5. How are new cells reproduced?.

MATHS

1. Factorize each of the following expression
(i) $x^2 - x - 42$
2. Factorize each of the following expression
 $6 - 5y - y^2$
3. Factorize each of the following expression
 $ab + ac - b^2 - bc$
4. Factorize each of the following expression
 $p^4 - 81q^4$
5. Use remainder theorem to find remainder, when $p(x)$ is divided by $q(x)$ in following questions.
 $p(x) = x^9 - 5x^4 + 1$, $q(x) = x + 1$
6. Use remainder theorem to find remainder, when $p(x)$ is divided by $q(x)$ in following questions.
 $p(x) = 2x^3 - 3x^2 + 4x - 1$, $q(x) = x + 2$

7. Factorize each of the following expression

$$125a^3 + \frac{b^3}{27}$$

8. Use factor theorem to verify in each of the following that $q(x)$ is a factor of $p(x)$.

For what value of k is $y^3 + ky + 2k - 2$ exactly divisible by $(y + 1)$?

9. If $x^3 + mx^2 + nx + 6$ has $x - 2$ as a factor and leaves a remainder 3, when divided by $x - 3$, find use of m and n .
10. Find the value of the polynomial $5x - 4x^2 + 3$ at:
(i) $x = 0$ (ii) $x = -1$