

NEW STANDARD ACADEMY

Date : 24-06-24

CLASS : 11TH NEET

Marks: 60
Time: 3 HRS

PHYSICS

1. The co-ordinates of a body moving in plane at an instant of time t are $x = \alpha t^2$ and $y = \beta t^2$. The velocity of body is?
 2. Path of the bomb released from an aeroplane moving with uniform velocity at certain height is observed by the pilot is?
 3. The trajectory of a projectile is represented by $y = \sqrt{3}x - gx^2/2$. The angle of projection is?
 4. The equation of projectile is $y = 16x - \frac{5x^2}{4}$. the horizontal range is ?
 5. What is the ratio of maximum height reached to the square of time of flight in projectile motion? ($g=10 \text{ ms}^{-2}$)
 6. The displacement- time graph for two particles A and B are straight line inclined at angles of 30° and 60° with the time axis. The ratio of velocities of $V_A:V_B$ is?
 7. The velocity of a body moving with a uniform acceleration of 2 m./sec^2 is 10 m/sec . Its velocity after an interval of 4 sec is?
 8. The displacement of a particle is given by $y = a+bt+ct^2 - dt^4$. The initial velocity and acceleration are respectively?
 9. Can a body have zero velocity and still acceleration?
 10. A body is thrown horizontally with a velocity v from a tower of height H . After how much time and at what distance from the base of tower will the body strike the ground?
6. Write the electronic structures of PCl_5 and NH_4Cl
 7. What is VSEPR theory? Explain structure of H_2O with the help of it.
 8. State the role of LCAO in the molecular orbital theory
 9. What is hydrogen bond? What is the reason as normal temperature water is liquid and H_2S is gas?
 10. Describe the geometry of the following molecules on the basis of hybridization and VSEPR theory-
 - (i) Methane
 - (ii) Water
 - (iii) NH_3 ,
 - (iv) PCl_5

BIOLOGY

1. What is the main basis of five kingdom classification?
2. What is archebacteria explain.
3. What is phylogenetic classification
4. What are thermoacidophiles
5. What are heterocysts?
6. What are dinoflagellates?
7. In the five kingdom system of Whittaker, how many kingdoms are eukaryotes?
8. What is the unique feature of Euglena?
9. Define – Diplococues , Bacillus
10. What are slime moulds.

CHEMISTRY

1. What are sigma (σ) and pi (π) bonds ?
2. What is s-p overlapping?
3. Explain sp^2 hybridisation with example
4. Explain in short, the factors affecting the formation of ionic bond.
5. Describe the characteristics of covalent compounds.