Assignment 11th Science

Do all the assignments on sheet

Date 6-1-26 : Straight Lines – Advanced Forms

Key Concepts / Hints:

- Point-slope form: **$y - y_1 = m(x - x_1)$**.

- Two-point form of a line:
  $(y - y_1)/(y_2 - y_1) = (x - x_1)/(x_2 - x_1)$.

- Intercept form: **$x/a + y/b = 1$**, where a and b are x and y intercepts.

- Distance of a point (x_1, y_1) from line $ax + by + c = 0$ is:
  $|ax_1 + by_1 + c| / \sqrt{(a^2 + b^2)}$.

Self Practice Questions (Any 5):

1. Find the equation of the line passing through (3, 4) and (5, 8).

2. Find the equation of the line whose x-intercept is 4 and y-intercept is −2.

3. Find the distance of the point (2, −3) from the line $3x - 4y + 5 = 0$.

4. Find the equation of a line perpendicular to $y = 2x + 1$ and passing through (1, 2).

5. Find the coordinates of the point where the line $x - y + 1 = 0$ cuts the y-axis.

Quiz https://www.proprofs.com/quiz-school/ugc/story.php?title=ndu1odmyoqnwhx

Class 11th (PHYSICS)   Home Work   6 JAN 2026

Dear students please read carefully all the key details of chapter and at the end there is quiz related to topic . it is must to solve all quiz questions .

KINEMATICS – CLASS 11 PHYSICS
1. Introduction
Kinematics is the branch of mechanics that deals with the motion of objects without considering the causes (forces) responsible for the motion.

2. Basic Concepts
Rest & Motion: An object is in motion if its position changes with time relative to a reference point.
Scalar & Vector Quantities:
Scalar: Distance, speed, time
Vector: Displacement, velocity, acceleration

3. Distance and Displacement
Distance: Total path length (scalar)
Displacement: Shortest straight-line distance between initial and final positions (vector)

4. Speed and Velocity
Speed: Rate of change of distance

$$\text{Speed} = \frac{\text{Distance}}{\text{Time}}$$

Velocity: Rate of change of displacement

$$\vec{v} = \frac{\vec{s}}{t}$$

Average Velocity:

$$v_{avg} = \frac{\text{Total displacement}}{\text{Total time}}$$

5. Acceleration
Rate of change of velocity with time

$$a = \frac{v - u}{t}$$

Where
u= initial velocity,
v= final velocity

6. Equations of Motion (Uniform Acceleration)

1. $v = u + at$
2. $s = ut + \frac{1}{2}at^2$
3. $v^2 = u^2 + 2as$

7. Motion in One Dimension
Motion along a straight line
Can be represented using position-time, velocity-time and acceleration-time graphs
Slope of graphs:
Slope of x-t graph → velocity
Slope of v-t graph → acceleration
Area under v-t graph → displacement

8. Motion in Two Dimensions
Includes projectile motion and circular motion
Motion analyzed along horizontal (x) and vertical (y) directions separately

9. Projectile Motion
For a projectile thrown with velocity u at angle θ:
Horizontal velocity: $u_x = u\cos \theta$
Vertical velocity: $u_y = u\sin \theta$
Important formulas:
Time of flight:

$$T = \frac{2u\sin \theta}{g}$$

Maximum height:

$$H = \frac{u^2 \sin^2 \theta}{2g}$$

Range:

$$R = \frac{u^2 \sin 2\theta}{g}$$

10. Uniform Circular Motion
Motion with constant speed along a circular path
Velocity direction changes continuously
Centripetal acceleration:

$$a = \frac{v^2}{r}$$

11. Relative Velocity
Velocity of one object with respect to another
$$\vec{v}_{AB} = \vec{v}_A - \vec{v}_B$$

Key Points for Exams
Kinematics does not deal with forces
Velocity and acceleration are vector quantities
Projectile motion is a 2-D motion
Uniform circular motion has acceleration even if speed is constant

Instructions

Students you have to use following link to start the quiz. After completion of quiz you will get the certificate of participation and grade marks .you have to save it for further assessment in future .

Link of quiz- https://www.proprofs.com/quiz-school/ugc/story.php?title=ndu1otazoa92cc

11th chemistry

Instructions

1. Solve all the questions on sheets.

2. write answers according to marks mentioned against the question

Questions

1.For the reaction; 2Cl(g) ———-> Cl2(g); what will be the signs of ΔH and ΔS?(2)

2.If ΔU = 0 how are q and w related to each other?(

3.When liquid benzene is oxidised at constant pressure at 300 K, the change in enthalpy is -3728 kJ. What is the change in internal energy at the same temperature?(3)

4.The bond enthalpy of H2(g) is 436 kj mol-1and that of N2 (g) is 941.3 kj mol-1. Calculate the average bond enthalpy of an N-H bond in ammonia. Given: ΔH− (NH3) = -46 kj mol-1(3)

Date:05.01.26

Learning Work: Chapter Photosynthesis in Plants

Photosynthesis in Plants – Brief Notes

Definition: Photosynthesis is the process by which green plants prepare their own food using sunlight,

carbon dioxide, and water in the presence of chlorophyll.

Site of Photosynthesis:

Occurs in chloroplasts of green cells (mainly in leaves).

Raw Materials Required:

Carbon dioxide (CO_2): from air through stomata

Water (H_2O): from soil through roots

Sunlight: source of energy

Chlorophyll: green pigment to trap light energy

Chemical Equation:

$6CO_2 + 6H_2O \rightarrow C_6H_{12}O_6 + 6O_2$ (in presence of sunlight & chlorophyll)

Phases of Photosynthesis:

Light reaction:

Occurs in grana

Light energy is converted into chemical energy (ATP, NADPH)

Oxygen is released

Dark reaction (Calvin cycle):

Occurs in stroma

CO_2 is converted into glucose

Does not require light directly

Opening and Closing of Stomata:

Controlled by guard cells.

Importance of Photosynthesis:

Produces food for plants

Releases oxygen for respiration

Maintains balance of CO_2 and O_2 in atmosphere

Basis of all food chains

Factors Affecting Photosynthesis:

Light intensity

CO_2 concentration

Temperature

Water availability

Quiz-

http://https://www.proprofs.com/quiz-

**school/ugc/story.php?title=ndu1ntu0maenxi&token=cHJlZXRpYmlzaG5vaTE5ODVAZ21haWw
uY29t**Punjabi

https://forms.gle/GvjT1oHrVyyEd5RVA

6th Jan,2026

CBSE Class 11th

English

Most Important Questions

Note: Doing & learning task

1. You are Vikram/Vidhi, a student of Class XI. Your school is organizing a debate on the effectiveness of

traditional school practices. You have been asked to speak on the topic "Homework Is Beneficial for

Students" Write the debate in 120–150 words

Hints for the Motion:

Reinforces classroom learning and builds discipline.

Encourages independent research and time management skills.

- Helps teachers assess students' understanding of concepts.

Hints Against the Motion:

- Leads to unnecessary stress and reduces family time.

- Not all students have equal access to resources for completing homework.

- Learning should be interactive and engaging rather than repetitive.

2. 1.You are Aarav/Aditi, a student of Class XI. Your school is hosting a debate competition on the role of social media in modern society. You have been selected to deliver a debate on the topic "Should Social Media Platforms Be Held Accountable for Spreading Misinformation?" Write in favour or against the motion in 120–150 words.

Hints for the Motion: Social media has a significant influence on public opinion. Misinformation can lead to serious consequences, including violence and panic. Platforms should ensure fact-checking and regulate harmful content. Hints Against the Motion: Freedom of speech should not be compromised. Users are responsible for verifying the authenticity of information. Regulating content could lead to censorship and biased narratives.