

**HOME ASSIGNMENT  
JANUARY 10, 2025  
CLASS +1(SCIENCE)**

Class:11th Sub: English 10.01.2026

Quiz: <https://wayground.com/join?gc=39326694&source=liveDashboard>

Quiz Code: 39326694

**PUNJABI**

ਜਮਾਤ ਗਿਆਰਵੀ

- 1 ਸ਼ਹਿਜ਼ਾਦਾ ਸ਼ੇਖੂ ਕੌਣ ਸੀ ?
- 2 ਦੁੱਲਾ ਮੁਗਲਾਂ ਦੇ ਬਾਦਸ਼ਾਹੀ ਜਲੋਅ ਤੋਂ ਕਿਵੇਂ ਜਾਣੂ ਹੋਇਆ ਸੀ ?
- 3 ਮਿਰਜ਼ਾ ਆਪਣੇ ਪਿੰਡ ਦਾ ਨਾਵਾਦ ਵਾਪਸ ਕਿਉਂ ਆਇਆ ਸੀ ?
- 4 ਕੋਟ ਕਬੂਲੇ ਦੇ ਕਾਜੀ ਨੇ ਕੀ ਫੈਸਲਾ ਕੀਤਾ ਸੀ ?
- 5 ਰਸਾਲੂ ਦੀ ਚੁਫੇਰੇ ਪ੍ਰਸਿੱਧੀ ਕਿਉਂ ਹੋਈ ਸੀ?

**Class 11<sup>th</sup> (PHYSICS) Home Work 10 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.

Chapter: Mechanical Properties of Solids

**Introduction**

This chapter deals with the behavior of solid materials under the action of external forces. It explains how solids deform and regain shape using the concepts of stress, strain, and elasticity.

**Elasticity**

Elasticity is the property of a material to regain its original shape and size after removal of deforming force.

Materials that regain shape completely are called elastic materials.

**Stress**

Stress is the internal restoring force per unit area developed inside a material.

$$\text{Stress} = \frac{\text{Force}}{\text{Area}}$$

**Types of Stress:**

Longitudinal stress

Shearing stress

Volumetric stress

**Strain**

Strain is the ratio of change in dimension to original dimension.

Strain has no unit.

**Types of Strain:**

Longitudinal strain

Shearing strain  
Volumetric strain

Hooke's Law  
Within elastic limit, stress  $\propto$  strain.

$$\text{Stress} = E \times \text{Strain}$$

Elastic Moduli  
Young's Modulus (Y)  
Measures elasticity of solids in length.

$$Y = \frac{\text{Longitudinal stress}}{\text{Longitudinal strain}}$$

Bulk Modulus (K)  
Measures resistance to change in volume.

$$K = \frac{\text{Volumetric stress}}{\text{Volumetric strain}}$$

Shear Modulus ( $\eta$ )  
Measures rigidity.

$$\eta = \frac{\text{Shearing stress}}{\text{Shearing strain}}$$

Poisson's Ratio ( $\sigma$ )  
Ratio of lateral strain to longitudinal strain.

$$\sigma = \frac{\text{Lateral strain}}{\text{Longitudinal strain}}$$

Stress–Strain Curve  
Shows relation between stress and strain.  
Important points:  
Elastic limit  
Yield point  
Breaking point

Elastic Potential Energy  
Energy stored in a stretched wire.

$$U = \frac{1}{2} \times \text{Stress} \times \text{Strain} \times \text{Volume}$$

Applications of Elasticity  
Design of bridges and buildings

Selection of materials for machines  
Suspension cables and springs

#### 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=ndu2mzk2mgmh3p>**

#### **11th Chemistry**

##### Instructions

1. Solve all the questions on sheets.
2. Write answers according to marks mention above the question .

##### Questions

1. Draw MOT diagram for O<sub>2</sub> and compare their properties.(3)
2. Explain why PCl<sub>5</sub> is trigonal bipyramidal whereas IF<sub>5</sub> is square pyramidal.(3)
3. Group the following as linear and non-linear molecules:  
H<sub>2</sub>O, HOCl, BeCl<sub>2</sub>, Cl<sub>2</sub>O(3)
4. Draw the resonating structure of  
(i) Ozone molecule  
(ii) Nitrate ion(3)

#### **MATHEMATICS**

1. Find the number of ways in which a committee of 3 members can be selected from 7 teachers.
2. From 6 men and 4 women, a committee of 3 members is to be formed. Find the number of ways so that the committee contains at least 1 woman.
3. Find the number of ways of selecting 4 cards from a well-shuffled deck of 52 playing cards.
4. In how many ways can a team of 5 players be selected from 8 players?
5. Find the number of ways of choosing 3 books from a collection of 10 different books.
6. How many combinations are possible when 4 objects are selected from 9 distinct objects?
7. Find the number of ways in which a committee of 4 persons can be chosen from 6 men and 5 women if the committee must contain exactly 2 women.
8. Find the value of k, if:  $kC3 = 20$

Quiz <https://www.proprofs.com/quiz-school/ugc/story.php?title=ndu2mzmxnxiji>

#### **BIOLOGY**

CHAPTER : Respiration in Plants      YEAR  
MULTIPLE CHOICE QUESTIONS (1 MARK)

- 1      Draw citric acid cycle and specify the reaction catalysed by citrate synthase in Krebs' cycle.      2018-19
- 2      Define fermentation    2018-19

3                   2023-24  
4                   2024-25

**ASSERTION - REASON QUESTIONS (1 MARK)**

1   14. Assertion: Fermentation is incomplete oxidation of glucose.

Reason: Pyruvic acid decarboxylase and alcohol dehydrogenase catalyse the reactions.

(a) If both Assertion (A) and Reason (R) are true and R is correct explanation of A.

(b) If both A and R are true but R is not correct explanation of A.

(c) If A is true but R is false.

(d) If both A and R are false. 2020-21(2)

**SHORT ANSWER QUESTIONS (TWO MARKS)**

1                   2015-16

2   Mention the two steps of Glycolysis in which ATP is released.           2020-21(2)

3                   2023-24

**LONG ANSWER QUESTIONS- I (THREE MARKS)**

1                   2015-16

2                   2016-17

3   There is a net gain of 36 ATP molecules during aerobic respiration of one molecule of glucose. Elaborate the above statement and show the above calculation in Respiratory Balance Sheet. 2017-18

4   29. Explain the major pathways of anaerobic respiration starting from Pyruvic acid. 3  
2020-21

5   What is Oxidative Phosphorylation? How is ATP synthesized in Inner Mitochondrial membrane in plants by Fo-F<sub>1</sub> particles ? 3   2020-21(2)

6                   2022-23

7                   2024-25

**SOURCE-BASED/ CASE-BASED/ PASSAGE-BASED/ INTEGRATED ASSESSMENT QUESTIONS. (FOUR MARKS)**

**LONG ANSWER QUESTIONS- II (FIVE MARKS)**

1                   2014-15

2   Explain the mechanism of membrane-linked ATP synthesis during respiration in plants. In which form pyruvic acid is converted into before it enters the Krebs' cycle?

5                   2018-19

3                   2019-20

4   Answer the following questions with respect to Kreb's cycle:

(a) What are the two successive steps of decarboxylation after citrate is formed.

(b) In which step of TCA does substrate level of phosphorylation take place?

(c) At what point in TCA is FAD<sup>+</sup> reduced to FADH<sub>2</sub>?

(d) Condensation of acetyl coA with oxaloacetate is catalyzed by which enzyme? 5

2020-21

5   Give the schematic representation of the Citric Acid cycle

OR

Explain the respiratory pathway which is common to both aerobic and anaerobic organisms.

2021-22