

**HOME ASSIGNMENT**  
**JANUARY, 9 2025**  
**CLASS +1(SCIENCE)**

**Sub: English**

Class: 11th Date: 9th Jan, 2025.

Read the extract given below and answer the questions that follow:

Father and son, we both must live  
On the same globe and the same land,  
He speaks: I cannot understand  
Myself, why anger grows from grief.  
We each put out an empty hand,  
Longing for something to forgive.

- i. What emotions does the father feel?
- ii. Explain: 'we each put out an empty hand'.
- iii. What do they earn for?

2. Read the extract given below and answer the questions that follow:

Silence surrounds us. I would have  
Him prodigal, returning to  
His father's house, the home he knew,  
Rather than see him make and move  
His world. I would forgive him too,  
Shaping from sorrow a new love.

- i. Name the poem and the poet.
- ii. What does the father not want his son to do?
- iii. What would the father do to shape a new love from sorrow?

**11th Chemistry**

**Instructions**

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

**Questions**

1. Explain why the electron gain enthalpy of fluorine is less negative than that of chlorine. (2)
2. Identify the group and valency of the element having atomic number 119. Also, predict the outermost electronic configuration and write the general formula of its oxide. (2)
3. Nitrogen has positive electron gain enthalpy whereas oxygen has negative. However, oxygen has lower ionisation enthalpy than nitrogen. Explain. (3)
4. p-Block elements form acidic, basic and amphoteric oxides. Explain each property by giving two examples and also write the reactions of these oxides with water. (3)

**Class 11<sup>th</sup> (PHYSICS) Home Work      9 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: Simple Harmonic Motion (SHM)**

**Introduction**

Simple Harmonic Motion is a type of oscillatory motion in which the restoring force is directly proportional to displacement and always acts towards the mean position.

$$F \propto -x \Rightarrow F = -kx$$

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**Characteristics of SHM**

Motion is periodic.

Acceleration is always directed towards the mean position.

Velocity is maximum at mean position and zero at extreme positions.

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### Important Terms

Quantity	Symbol	Formula
Displacement	X	$x = A \sin(\omega t + \phi)$
Velocity	V	$v = \omega \sqrt{A^2 - x^2}$
Acceleration	A	$a = -\omega^2 x$
Time Period	T	$T = 2\pi/\omega$
Frequency	F	$f = 1/T$

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### Energy in SHM

#### Kinetic Energy (KE)

$$KE = \frac{1}{2} m \omega^2 (A^2 - x^2)$$

#### Potential Energy (PE)

$$PE = \frac{1}{2} m \omega^2 x^2$$

#### Total Energy

$$E = \frac{1}{2} m \omega^2 A^2 (\text{constant})$$

### Simple Pendulum

Consists of a point mass (bob) suspended by a light inextensible string from a rigid support.  
Performs SHM for small angular displacements.

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#### Time Period of Simple Pendulum

$$T = 2\pi \sqrt{\frac{l}{g}}$$

Where:

l = length of pendulum

g = acceleration due to gravity

Time period is:

Independent of mass of bob

Independent of amplitude (for small oscillations)

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### Angular SHM

Restoring torque  $\propto$  angular displacement

Motion is angular SHM

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**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.propfans.com/quiz-school/ugc/story.php?title=ndu2mtqxngt1he>

### MATHS

#### NCERT Chapter 11 | Exercise 11.2

##### Hints:

- Use standard forms  $y^2 = 4ax$  or  $x^2 = 4ay$ .
- Identify axis correctly.

NCERT Hard Questions (Equation Form):

Find the equation of the parabola with focus (1, -2) and directrix  $x + 1 = 0$ .

Find the equation of the parabola with vertex at origin and latus rectum = 8.

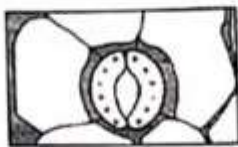
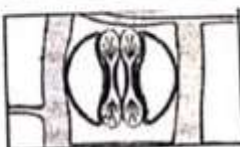

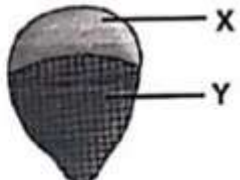
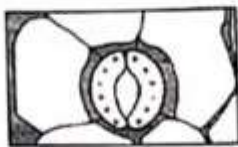
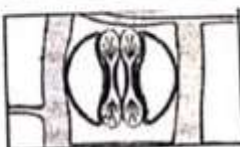

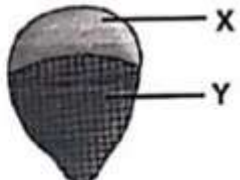
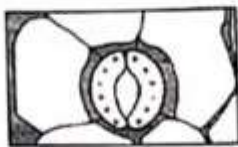
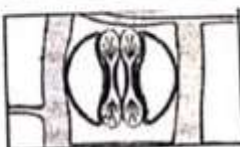

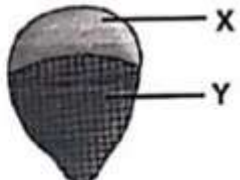
Find the equation of the parabola with axis along y-axis passing through (2, 8).


Find the equation of the parabola with focus (0, -3) and directrix  $y = 3$ .

Find focus and directrix of  $x^2 = -16y$ .

Quiz <https://www.proprofs.com/quiz-school/ugc/story.php?title=ndu2mjm0oqzvzjz>

**BIOLOGY**  
**QUESTION BANK (PYQ)**  
**CLASS-XI**

	CHAPTER : ANATOMY OF FLOWERING PLANTS	YEAR									
	LONG ANSWER QUESTIONS (FIVE MARKS)										
1	Explain the internal tissue organisation of the stele part of a dicotyledonous root.	2014									
	LONG ANSWER QUESTIONS- (FIVE MARKS)										
1	Draw a diagram of a portion of the cross section of a primary dicot root and label any four parts.	2016									
2	How is the cambium ring formed during secondary growth in dicot root.										
3	List any two differences between the anatomy of dicot and monocot root with reference to vascular bundles and pith.										
4	Draw a diagram of a portion of the cross section of a monocoat root and label any four parts.										
	LONG ANSWER QUESTIONS- I (THREE MARKS)										
1	Looking at the leaf of a plant can we decide whether the plant is a monocot if so how?	2017									
	LONG ANSWER QUESTIONS- II (FIVE MARKS)										
1	Describe briefly the anatomy of dicotyledonous leaf with the help of a labelled diagram.	2018									
1	A group of students prepared slides for various plant parts and drew their observation in a table below: <table><tr><td>Plant part</td><td>Plant A</td><td>Plant B</td></tr><tr><td>Epidermal peel</td><td></td><td></td></tr><tr><td>Vascular bundle</td><td></td><td></td></tr></table>	Plant part	Plant A	Plant B	Epidermal peel			Vascular bundle			2022
Plant part	Plant A	Plant B									
Epidermal peel											
Vascular bundle											
1	Compare the epidermal peel of both the plants on the basis of their stomata.										
2	Identify plants A and B as monocot or dicot .										
3	Label X and Y in the vascular bundle of plant B.										

4	Among the plants A and B which one will show secondary growth and why?	
LONG ANSWER QUESTIONS- (THREE MARKS)		
1	The structure and function of a plant tissue depends on its location . Mention three structural components of epidermal tissue in a plant which regulate the rate of transpiration. Name three simple tissue found in the ground tissue system of plant.	2023
LONG ANSWER QUESTIONS- II (FIVE MARKS)		
1	Identify the plant part whose transverse section is shown in figure given below Mention the characteristic feature that helped in identification of the plant part. How are xylem and phloem arranged in the given plant part.	2024
		

PUNJABI

ਕਿਸੇ ਅਖਬਾਰ ਦੇ ਸੰਪਾਦਕ ਨੂੰ ਪੱਤਰ ਲਿਖੋ ਜਿਸ ਵਿੱਚ ਸੜਕੀ ਟਰੈਫਿਕ ਦੀ ਸਮੱਸਿਆ ਅਤੇ ਇਸ ਨੂੰ ਸਲਝਾਉਣ ਬਾਰੇ ਆਪਣੇ ਵਿਚਾਰ ਪ੍ਰਗਟਾਏ ਗਏ ਹੋਣ।