

DAV PUBLIC SCHOOL, SECL BISHRAMPUR
AUTUMN BREAK HOMEWORK
SESSION:2026-27
Class XI

English

Students will make a group of four and create a ppt presentation on the given topics.
(Any one out of the two)

Topic 1: A JOURNEY THROUGH POETIC DEVICES

1. **TITLE PAGE** : School's name, Title of the project, student name, roll number, class/section, and teacher's name.
2. **Acknowledgement**: Expressing gratitude to the school, principal, and teacher.
3. **Index / Table of Contents**: Serialized list of headings and Slide numbers.
4. **Objectives**: Overview of the chosen topic and goals.
5. **Body / Main Content** :
 - a) Introduction of poetic devices
 - b) The purpose of using poetic devices in literature
 - c) Different types of poetic devices, definition and examples from the prescribed poems of 'English curriculum.
6. **CONCLUSION**
7. **BIBLIOGRAPHY / REFERENCES**

Hindi

1. परियोजना कार्य
2. अपठित गद्यांश
3. अपठित काव्यांश
4. निम्नलिखित विषयों पर अप्रत्याशित लेखन
 - I. स्वच्छता: आज की आवश्यकता
 - II. मोबाइल में कैद जीवन

PHYSICS

ncert intext questions from chapter gravitation 10-10 mcq and assertion reason frame from above ncert chapter.

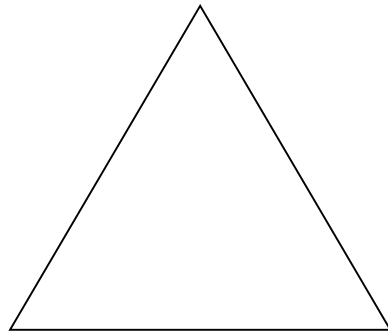
CHEMISTRY

1. Solve the NCERT and intext NCERT exercise of the chapter thermodynamics.
2. Write 10 MCQ and 10 assertion reasoning questions from chapter 5.
3. Frame CBQ from topic -
 - (a) Spontaneous process from chemical thermodynamics.
 - (b) Hess's law from chapter 5.

MATHEMATICS

1. If $\frac{a^n+b^n}{a^{n-1}+b^{n-1}}$ is the A.M. between a and b .find the value of n.
2. The sum of n terms of two arithmetic progressions are in the ratio $5n + 4 : 9n + 6$. Find the ratio of their 18th terms.
3. Assuming the straight lines work as a plane mirror for a point , find the image of the point (1,2) in the line $x - 3y + 4 = 0$
4. If $\tan x = \frac{3}{4}$, $\pi < x < \frac{3\pi}{2}$, find the values of $\sin \frac{x}{2}$, $\cos \frac{x}{2}$ and $\tan \frac{x}{2}$.
5. **CASE STUDY** :Five students Ajay, Shyam, Rahul, Ravi and Rashid are sitting in a play ground in a line. Find
 - (i) Total number of ways of sitting arrangement of five students?
 - (ii) Total number of sitting arrangement if Ajay and Ravi sit together?
 - (iii) Total number of arrangement Ravi and Rahul sitting at extreme position?
6. **CASE STUDY** : In a survey of 100 students,the number of students studying the various languages were found to be: English only 18, English but not Hindi 23, English and German 8, English 26, German 48, German and Hind is 8, no language 24.Find the number of students who were studying
 - (i) Hindi
 - (ii) English and Hindi
 - (iii) English, Hindi and German.
7. **CASE STUDY** : . Three girls, Rani, Mansi, Sneha are talking to each other and maintaining a social distance due to covid-19. They are stand on vertices of triangle. Whose coordinates are given.

Rani(2, -2)



Mansi(1, 1)

Sneha(-1, 0)

- (i) What is equation of lines formed by rani and mansi ?
- (ii) What is the slope of equation of line formed by Rani and Sneha ?
- (iii) What is the equation of median of lines through Rani ?

8. Find the domain and range of the function $f = \left\{ \left(x : \frac{x^2}{1+x^2} \right) : x \in R, \right\}$

9. Solve the equations :

$$4\sin^2\theta - 8\cos\theta + 1 = 0$$

10. The principal value of amplitude of $(1 + i)$ is

- (a) $\frac{\pi}{4}$ (b) $\frac{\pi}{12}$ (c) $\frac{3\pi}{4}$ (d) π

11. Two finite sets have m and n elements. The number of subsets of the first set is 112 more than that of the second. The values of m and n are respectively

- (a) 4, 7 (b) 7, 4 (c) 4, 4 (d) 7, 7

12. At 3:40, the hour and minute hands of a clock are inclined at

- (a) $\frac{2\pi}{3}$ (b) $\frac{7\pi}{12}$ (c) $\frac{13\pi}{18}$ (d) $\frac{3\pi}{4}$

13. $\sqrt{\frac{1-\cos x}{1+\cos x}} = ?$

- (a) $\tan \frac{x}{2}$ (b) $\cos \frac{x}{2}$ (c) $\cot \frac{x}{2}$ (d) none

14. If $i^2 = -1$, then the sum of $i + i^2 + i^3 + \dots$ upto 1000 terms is equal to

- (a) 1 (b) -1 (c) i (d) 0

15. The argument of $\frac{1-i}{1+i}$ is

- (a) $-\frac{\pi}{2}$ (b) $\frac{\pi}{2}$ (c) $\frac{3\pi}{2}$ (d) $\frac{5\pi}{2}$

16. If a and b are the roots of the quadratic equation $x^2 + x + 1 = 0$ then $a^2 + b^2 =$

- (a) 1 (b) 2 (c) -1 (d) 3

17. The value of $\tan 1^\circ \tan 2^\circ \tan 3^\circ \dots \tan 89^\circ$ is

- (a) 0 (b) 1 (c) $1/2$ (d) not defined

18. If $x + iy = \frac{3+5i}{7-6i}$, then $y =$

- (a) $\frac{9}{85}$ (b) $-\frac{9}{85}$ (c) $\frac{53}{85}$ (d) none of these

19. The value of $\sqrt{-25} \times \sqrt{-9}$ is

- (a) -15 (b) 15 (c) 5 (d) 1

20. If $z = \left(\frac{1+i}{1-i}\right)$ then z^4 equals

- (a) 1 (b) -1 (c) 0 (d) none of these

BIOLOGY

1. solve the NCERT exercise of Chapter- Biomolecules.
2. Write down 05 Assertion-Reason and 10 MCQ question from the same chapter.
3. Complete the third practical in your lab manual.

ACCOUNTANCY

1. Solve the exercises of Depreciation for both methods (SLM, DVM) and write all MCQ question & answers.

BUSINESS STUDIES

1. Write all types of questions from emerging modes of business and social responsibility of business.

ECONOMICS

Q1. An economy has limited land, labour and capital but wants to produce more food, clothing and public transport. Explain scarcity and choice. Discuss the three central problems of an economy, giving one concrete example of each. How can a production possibility curve (PPC) illustrate opportunity cost and the problem of choice? Draw a properly labelled PPC and explain why a point inside it indicates inefficient resource use.

Q2 Distinguish between microeconomics and macroeconomics using three examples of economic decisions. Classify each statement as positive or normative and justify: (i) “A rise in the price of a commodity, other things equal, reduces quantity demanded”; (ii) “The government should subsidise essential goods”; (iii) “Unemployment increased last year.” Explain why economic models use the assumption of other things remaining constant.

Q3. A consumer buys 80 units of a good at ₹25 each. When its price rises to ₹30, quantity demanded falls to 64 units. Calculate price elasticity of demand using the percentage method with the original values as bases. Interpret the result. Explain any four factors determining price elasticity of demand, and discuss how the elasticity of necessities differs from that of goods with close substitutes.

Q4. A seller observes the following price–quantity combinations: (A) price ₹10, quantity 120; (B) price ₹12, quantity 110; (C) price ₹15, quantity 80. Calculate total expenditure at each price. Using the total expenditure method, identify the nature of demand elasticity between A and B and between B and C. Explain why the percentage and total expenditure methods may describe elasticity differently for a finite price change.

Q5. A firm employs variable labour with fixed machinery. Its total product at 0, 1, 2, 3, 4, 5 and 6 workers is respectively 0, 12, 30, 51, 68, 80 and 84 units. Construct a table showing total product, marginal product and average product. Identify where marginal product starts diminishing. Explain the law of variable proportions with a labelled diagram, distinguishing its three stages.

Q6. A producer incurs total fixed cost of ₹120. Total variable costs for outputs of 0, 1, 2, 3, 4 and 5 units are ₹0, ₹60, ₹100, ₹150, ₹220 and ₹310 respectively. Prepare a table of TFC, TVC, TC, AFC, AVC, AC and MC for each positive output level (and totals at zero output). Explain the relationship between marginal cost and average variable cost, and state why average fixed cost falls as output increases.

Q7. Differentiate fixed cost from variable cost and explicit cost from implicit cost with suitable examples. Explain the shape of the short-run marginal cost, average variable cost and average cost curves, using one combined labelled diagram. Why does the marginal cost curve intersect the AVC and AC curves at their respective minimum points?

Q8. A school wants to estimate the average daily time spent by Class XI students travelling to school. Prepare a detailed statistical investigation plan: define population and sample; compare census and sample survey; propose a sampling method and justify it; draft five unbiased questionnaire items; and explain four likely sources of error or bias and how to minimise them.

Q9. A researcher studies changes in household expenditure over five years. Compare primary and secondary data with reference to source, cost, timeliness, suitability and reliability. Explain four methods of collecting primary data. State five precautions that must be taken before using published secondary data and illustrate with examples.

Q10. The marks (out of 50) of 30 students are: 12, 18, 25, 31, 27, 35, 42, 19, 24, 29, 33, 37, 40, 22, 16, 28, 34, 45, 38, 26, 30, 21, 14, 32, 39, 43, 20, 36, 23, 41. Construct an exclusive continuous frequency distribution with classes 10–20, 20–30, 30–40 and 40–50. Add relative and cumulative frequencies. Identify the modal class, explain why class boundaries must not overlap and state two limitations of grouped data.

HISTORY

Prepare the project files as per the topic given to you roll no wise & noted to you in your diary.

GEOGRAPHY

PREPARE A PPT IN FOLLOWING TOPIC

Topical Cyclone

- * Slide 1: Title Slide – Tropical Cyclones: Threats to India's Coastlines.
- * Slide 2: Bay of Bengal vs. Arabian Sea – Why the Bay of Bengal witnesses more severe cyclones.
- * Slide 3: The role of the IMD (Indian Meteorological Department) and satellite technology.

Landslides in the Himalayas vs. the Western Ghats

A strong geomorphology topic that compares how the same disaster behaves differently in two distinct mountain systems of India.

- * Slide 1: Title Slide – Landslides: Comparative Study of the Himalayas and Western Ghats.
- * Slide 2: What is a Landslide? – Definition, mass wasting, and triggering factors.
- * Slide 3: The Himalayan Region – Tectonically active, steep slopes, fragile rocks, heavy rainfall/snowmelt.
- * Slide 4: The Western Ghats – Tectonically stable but highly degraded due to mining, deforestation, and heavy monsoon downpours.

Flood in different parts of India

Slide 1: Locate the areas of flood prone area on map

Slide 2. Reason of Flood

Slide 3. Measures to control flood

POLITICAL SCIENCE

Long Answer Questions

1. Explain the procedure for the removal of a judge of the Supreme Court.
2. Explain the structure, powers and functions of the Supreme Court of India.
3. How does the Indian Constitution ensure the independence of the judiciary?
4. Explain the role of the judiciary in protecting Fundamental Rights

Extra Activity

Collect one recent newspaper article or news report for each of the following topics: 5- Judicial intervention in an important public issue .

6 -A Centre–State issue or dispute.

IP

1. Write a Python program to input five integers from the user, store them in a list, and display the list.
2. Write a Python program to input a list of numbers and display the largest and smallest elements in the list.
3. Write a Python program to count the number of even elements in a list of integers.
4. Write a Python program to search for a given element in a list and display a suitable message indicating whether it is present.
5. Write a Python program to create a list containing numbers from 1 to 10 and display the elements at even index positions.
6. Write a Python program to create a dictionary containing the names of three students as keys and their marks as values, and display the dictionary.
7. Write a Python program to input a student's name and marks, store them in a dictionary, and display the dictionary.
8. Write a Python program to create a dictionary containing five items and their prices, then display each item and its price using a loop.
9. Write a Python program to count the frequency of each character in a word using a dictionary.
10. Write a Python program to check whether a given key exists in a dictionary and display a suitable message.

Physical Education

Units: 5 and 6

Instructions: Write the answers to all the following long-answer questions in your Physical Education classwork notebook.

Unit 5: Yoga

1. Define Yoga and explain its importance and benefits for maintaining physical, mental, and emotional health.
2. Explain the procedure, benefits, and contraindications of any four asanas.

Unit 6: Physical Activity and Leadership Training

3. What is leadership in Physical Education? Explain the qualities and characteristics of a good leader in sports and physical activities.
4. Explain the importance of leadership training in Physical Education. Describe any four leadership qualities that help in organizing sports and games effectively.