



DAV PUBLIC SCHOOL
Sec-3,Dhurwa-Ranchi 4
Affiliated to CBSE Delhi (10+2)



Session: 2026-27

CLASS - XIIth

SUBJECT - ENGLISH

=====

Holiday Homework

Copy work -

- Q.1 What was the mood in the class room when M Hamel gave his last French lesson?
- Q.2 Franz didn't learn French, whom did M. Hamel blame?
- Q.3 What did Franz notice that was unusual about the school that day?
- Q4. What changes did the order from Berlin cause in school that day?
- Q 5. What did M. Hamel say about the French language?
- Q6. Franz thinks, "Will they make them sing in German, even the pigeons?" What does this tell us about the attitude of the Frenchmen?
- Q7. What made M Hamel cry towards the end of his last lesson?
- Q8. What words did M Hamel write on the blackboard before dismissing the last class? What did they mean?
- Q9. "You realise the true value of a thing only on losing it." Comment on this statement in the light of the story, The Last Lesson.

OR

Prussians put a ban on the French language People realized the importance of holding onto their mother tongue.

***LONG QUESTIONS ***

Q10. "You realise the true value of a thing only on losing it." Comment on this statement in the light of the story, The Last Lesson. OR

Prussians put a ban on the French language People realized the importance of holding onto their mother tongue.

Q11. What is the significance of M. Hamel's staring at the classroom at the end of the Last Lesson?

Q12. Explain the line "I have never saw him look so tall."

Q13. Franz thinks, "Will they make them sing in German, even the pigeons?"

After reading the chapter, you realise that man has an intense desire to subjugate others. You feel that in the modern world, there is a strong need for brotherhood. Write an article in about 120-150 words for a national magazine on this.

Q14. "My Last French Lesson! Why I hardly knew how to write! I should never learn any more! I must stop there, then!"

The problem of school dropouts and illiteracy/backwardness still plagues our country. What qualities on the part of the administration, educationists and youth do you think will help to surmount this hurdle?

Q15. At the end of his last lesson, M. Hamel decides to leave a little note for each of his students for them to find the next day at their desks. Based on your reading of the story, what might his note to Franz read?

Q16. At the beginning of the story, Sam is skeptical of Charley's discovery of the third level. By the end of the story, the reader is told that he found the third level and travelled back in time. How would Sam diagnose himself?

Project work

TOPICS (on the basis of text book chapter)

1. The last lesson
 - i) About the Author
 - ii) Background of the chapter
 - iii) war memorial photos of France
 - iv) Short Summary about chapter
 - v) Importance of mother tongue
 - vi) Theme
 - vii) Message
 - viii) Central Idea
 - ix) Result
 - x) Conclusion

The Project-Portfolio may include the following:

- Cover page, with title of project, school details/details of students
- Statement of purpose/objectives/goals
- Certificate of completion under the guidance of the teacher
- Action plan for the completion of assigned tasks.
- Materials such as scripts for the theatre/role play, questionnaires for interview, written assignments, essays, survey-reports and other material evidence of learning progress and academic accomplishment
- The 800-1000 words essay/Script/Report
- Student/group reflections.
- If possible, Photographs that capture the positive learning experiences of the student(s).
- List of resources/bibliography

Subject - Fine arts

Project Work- 1. Draw any Landscape drawing with a human figure and colour it in A3 size drawing sheet .

2. Draw a flower pot with some flowers in Pencil Shading art A3 size drawing sheet.

3. A still life drawing picture in pencil shading, A3 size drawing sheet.

4. A warli art in pen shading,A3 size drawing sheet.
5. A Mandala art with Lotus flower in A3 size drawing sheet.

Copy work -

1. Write an introduction of manuscript painting tradition.
2. Write an introduction on western Manuscripts painting
3. Write an introduction on pala school of painting.
4. Write an introduction on Rajasthani miniature paintings.

Subject- Computer Science

Part A- Copy work

Learn and Write

A. Short answer Question

1. What are variables in Python?
2. Differentiate between list and tuple.
3. Explain the use of conditional statements.
4. What is the purpose of loops in Python?
5. Define function with an example.
6. What is recursion?
7. Explain local and global variables.
8. What are Python modules?

B. Long Answer Question

1. Explain different data types in Python with examples.
2. Discuss various operators in Python.
3. Explain for loop and while loop with syntax and examples.
4. Explain different string functions in Python.
5. Describe user-defined functions and their advantages.
6. Make notes on dictionary.

Part B - Practical file Work

1. Write a python Program to take input for a number, calculate and print its square and cube?
2. Write a python program to take input for 2 numbers, calculate and print their sum, product and difference?
3. Write a python program to take input for 3 numbers, check and print the largest number?
4. Write a python program to take input for 2 numbers and an operator (+ , - , * , /). Based on the operator calculate and print the result?

5. Write a python program to take input for a number and print its table?
6. Write a python program to take input for a number and print its factorial?
7. Write a python program to take input for a number check if the entered number is Armstrong or not.
8. Write a python program to take input for a number and print its factorial using recursion?
9. Write a python program to Display Fibonacci Sequence Using Recursion?
10. Write a python program to maintain book details like book code, book title and price using stacks data structures? (implement push(), pop() and traverse() functions)
11. Write a python program to maintain employee details like empno,name and salary using Queues data structure? (implement insert(), delete() and traverse() functions)

Subject - physical education

Write a short notes

1. Tournament

2. Fixture

3. Bye

4. Seeding

5. Special seeding

6. Planning

Write the following question and answer

1. Define sports management?

2. Function of sports management?

3. Committees for sports events?

4. Intramural and extramural?
5. Exercise guidelines for children?
6. Common postural deformities?
7. Special consideration for women athletes?

Fixture

1. Draw a fixture of 7 team using tabular method.
2. Do if any one team on combination method.

SUB:- CHEMISTRY

ELECTROCHEMISTRY (Chapter 2)

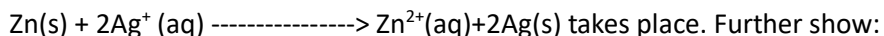
Answer the following question.

2.1 Arrange the following metals in the order in which they displace each other from the solution of their salts. Al, Cu, Fe, Mg and Zn.

2.2 Given the standard electrode potentials, $K^+ / K = -2.93V$, $Ag^+ / Ag = 0.80V$, $Hg^{2+} / Hg = 0.79V$

$Mg^{2+} / Mg = -2.37 V$, $Cr^{3+} / Cr = -0.74V$ Arrange these metals in their increasing order of reducing power.

2.3 Depict the galvanic cell in which the reaction

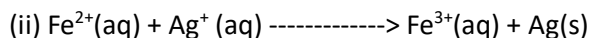
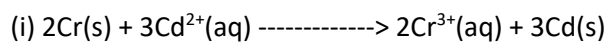


Which of the electrode is negatively charged?

The carriers of the current in the cell.

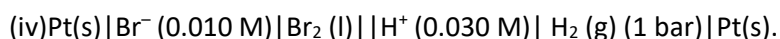
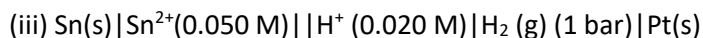
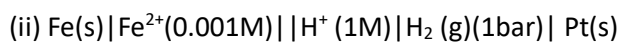
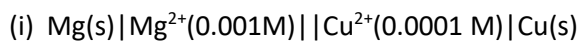
(iii) Individual reaction at each electrode.

2.4 Calculate the standard cell potentials of galvanic cell in which the following reactions take place:

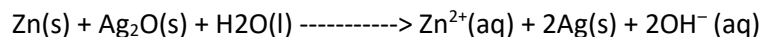


Calculate the ΔG° and equilibrium constant of the reactions.

2.5 Write the Nernst equation and emf of the following cells at 298 K:



2.6 In the button cells widely used in watches and other devices the following reaction takes place:



Determine ΔG° and E° for the reaction.

2.7 Define conductivity and molar conductivity for the solution of an electrolyte. Discuss their variation with concentration.

2.8 The conductivity of 0.20 M solution of KCl at 298 K is 0.0248 S cm^{-1} . Calculate its molar conductivity. 2.9 The resistance of a conductivity cell containing 0.001M KCl solution at 298 K is $1500\ \Omega$. What is the cell constant if conductivity of 0.001M KCl solution at 298 K is $0.146 \times 10^{-3}\text{ S cm}^{-1}$.

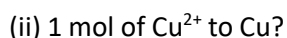
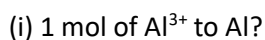
2.10 The conductivity of sodium chloride at 298 K has been determined at different concentrations and the results are given below:

Concentration/M	0.001	0.010	0.020	0.050	0.100
$10^2 \times k/\text{S m}^{-1}$	1.237	11.85	23.15	55.53	106.74

Calculate Λ_m for all concentrations and draw a plot between Λ_m and $c^{1/2}$. Find the value of Λ_m° .

2.11 Conductivity of 0.00241 M acetic acid is $7.896 \times 10^{-5}\text{ S cm}^{-1}$. Calculate its molar conductivity. If Λ_m° for acetic acid is $390.5\text{ S cm}^2\text{ mol}^{-1}$, what is its dissociation constant?

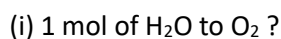
2.12 How much charge is required for the following reductions:



2.13 How much electricity in terms of Faraday is required to produce



2.14 How much electricity is required in coulomb for the oxidation of



2.15 A solution of $\text{Ni}(\text{NO}_3)_2$ is electrolysed between platinum electrodes using a current of 5 amperes for 20 minutes. What mass of Ni is deposited at the cathode?

2.16 Three electrolytic cells A,B,C containing solutions of ZnSO_4 , AgNO_3 and CuSO_4 , respectively are connected in series. A steady current of 1.5 amperes was passed through them until 1.45 g of

silver deposited at the cathode of cell B. How long did the current flow? What mass of copper and zinc were deposited?

2.17 Using the standard electrode potentials given in Table 3.1, predict if the reaction between the following is feasible: (i) $\text{Fe}^{3+}(\text{aq})$ and $\text{I}^{-}(\text{aq})$

(ii) $\text{Ag}^{+}(\text{aq})$ and $\text{Cu}(\text{s})$

(iii) $\text{Fe}^{3+}(\text{aq})$ and $\text{Br}^{-}(\text{aq})$

(iv) $\text{Ag}(\text{s})$ and $\text{Fe}^{3+}(\text{aq})$ (v) $\text{Br}_2(\text{aq})$ and $\text{Fe}^{2+}(\text{aq})$.

2.18 Predict the products of electrolysis in each of the following:

(i) An aqueous solution of AgNO_3 with silver electrodes.

(ii) An aqueous solution of AgNO_3 with platinum electrodes.

(iii) A dilute solution of H_2SO_4 with platinum electrodes.

(iv) An aqueous solution of CuCl_2 with platinum electrodes.

.....

Subject Mathematics

Chapter 1: Relations and Functions

1. Show that the relation R in the set of integers Z given by $R = \{(a, b) : 2 \text{ divides } (a - b)\}$ is an equivalence relation.
2. Determine whether the function $f(x) = x^2 - 4x + 7$ is one-one and onto from R to R .
3. Find the domain and range of $f(x) = \sqrt{9 - x^2}$.
4. Verify whether the relation $R = \{(1,1), (2,2), (3,3), (1,2), (2,1)\}$ is symmetric and transitive.
5. Find $f \circ g$ and $g \circ f$ if $f(x) = 2x + 1$ and $g(x) = x^2 - 1$.
6. Show that the function $f: R \rightarrow R$ defined by $f(x) = 3x + 7$ is invertible and find its inverse.
7. Find whether the relation 'is perpendicular to' in the set of lines in a plane is symmetric, reflexive, or transitive.
8. Find the inverse of $f(x) = \frac{x-1}{x+1}$, $x \neq -1$.
9. Check whether the function $f(x) = \sin x$ is one-one and onto from R to $[-1, 1]$.
10. Find the range of $f(x) = 1/(x^2 + 1)$.
11. Prove that the composition of two bijections is also a bijection.
12. Find the domain of $f(x) = \log(2x - 3)$.
13. Determine if $f(x) = |x|$ is invertible on R .
14. Show that every injective function from a finite set to itself is surjective.
15. Find the inverse of the function $f(x) = 5x - 9$.

Chapter 2: Inverse Trigonometric Functions

16. Find the principal value of $\sin^{-1}(-\sqrt{3}/2)$.
17. Evaluate $\tan^{-1}(1)+\tan^{-1}(2)+\tan^{-1}(3)$.
18. Prove that $\sin^{-1}x + \cos^{-1}x = \pi/2$.
19. Find the value of $\tan(2 \sin^{-1}(3/5))$.
20. Simplify $\cos(2 \tan^{-1}x)$.
21. Evaluate $\sin(\tan^{-1}(7/24))$.
22. Find the principal value of $\sec^{-1}(-2)$.
23. Prove that $\tan^{-1}x + \tan^{-1}y = \tan^{-1}((x+y)/(1-xy))$ under suitable conditions.
24. Evaluate $\cos(2 \sin^{-1}(1/3))$.
25. Find the value of $\sin(\cos^{-1}(4/5))$.
26. Evaluate $\tan^{-1}(1/\sqrt{3})$.
27. Express $\tan^{-1}(2)+\tan^{-1}(3)$ in simplest form.
28. Find the exact value of $\cos(\sin^{-1}(12/13))$.
29. Solve for x: $\tan^{-1}x = \pi/4$.
30. Find the principal value of $\cot^{-1}(-1)$.

Chapter 3: Matrices

31. Find the transpose of the matrix $A = [[1,2,3],[4,5,6]]$.
32. If $A = [[1,2],[3,4]]$ and $B = [[2,0],[1,2]]$, find AB and BA .
33. Show that matrix multiplication is not commutative.
34. Find the value of x if $[[x,2],[3,4]]$ is a symmetric matrix.
35. Verify whether the matrix $A = [[2,-1],[-1,2]]$ is skew-symmetric.
36. Find A^2 if $A = [[1,1],[0,1]]$.
37. Solve the matrix equation $AX = B$ for X.
38. Find the determinant of $[[2,3],[4,5]]$.
39. Show that the product of two symmetric matrices need not be symmetric.
40. Find the inverse of the matrix $[[1,2],[3,5]]$.
41. If A is a skew-symmetric matrix, prove that $A^T = -A$.
42. Find the adjoint of the matrix $[[2,1],[5,3]]$.
43. Express the given system of equations in matrix form.

44. Verify Cayley-Hamilton theorem for a 2×2 matrix.

45. Find the rank of the matrix $\begin{bmatrix} 1 & 2 & 3 \\ 2 & 4 & 6 \\ 1 & 1 & 1 \end{bmatrix}$.

Chapter 4: Determinants

46. Evaluate the determinant $\begin{vmatrix} 1 & 2 \\ 3 & 4 \end{vmatrix}$.

47. Find the determinant of $\begin{bmatrix} 2 & 3 & 1 \\ 1 & 0 & 2 \\ 4 & 1 & 3 \end{bmatrix}$.

48. Verify that the determinant changes sign when two rows are interchanged.

49. Find the area of the triangle with vertices $(1,2)$, $(3,4)$, and $(5,0)$ using determinants.

50. Solve the system using Cramer's Rule: $x+y=5$, $2x-y=1$.

51. If $A = \begin{bmatrix} a & b \\ c & d \end{bmatrix}$, show that $\det(A) = ad - bc$.

52. Evaluate the determinant using properties.

53. Show that the determinant of a singular matrix is zero.

54. Find the cofactors of the elements of the matrix $\begin{bmatrix} 1 & 2 \\ 3 & 4 \end{bmatrix}$.

55. Evaluate $\begin{vmatrix} \cos x & \sin x \\ -\sin x & \cos x \end{vmatrix}$.

56. Find the inverse of a matrix using adjoint method.

57. Prove that $\det(AB) = \det(A)\det(B)$.

58. Find the value of λ for which the determinant is zero.

59. Use determinants to solve a pair of linear equations.

60. Expand the determinant along the first row.

Investigatory Project

Application of Matrices and Determinants in Real Life

Objective: To study the practical applications of matrices and determinants in solving real-life problems.

Introduction: Matrices and determinants are widely used in computer graphics, economics, encryption, and engineering.

Materials Required: Graph paper, notebook, calculator, and computer.

Methodology: Collect data, form matrices, perform operations, and analyze results.

Applications: Traffic flow analysis, business data management, cryptography, and network systems.

Conclusion: Matrices simplify complex calculations and help in efficient data organization and problem-solving.

SUBJECT: BIOLOGY

1. Complete the writing part of practical note book.

2. Do the NCERT exercise of fourth lesson principles of inheritance and variations.

3. In some species of Asteraceae and grasses, seeds are formed without fusion of gametes.
4. Give the scientific term for such type of reproduction.
5. parts.
6. How are pollens stored in a pollen bank? Draw L.S of anatropous ovule of an angiosperm and label its Continued self-pollination lead to inbreeding depression. List three devices, which flowering plant have developed to discourage self-pollination.
7. Outer envelope of pollen grain made of a highly resistant substance. What is the substance? At which particular point the substance is not present?
8. Fruits generally develop from ovary, but in few species thalamus contributes to fruit formation. (a) Name the two categories of fruits. (b) Give one example of each.
9. List any four characteristic features of insect pollinating flower?
10. List any four characteristic features of wind pollinating flower?
11. List any four characteristic features of water pollinating flower? Which type of pollination is seen in water lily and water Hyacinth?
12. Differentiate between chasmogamous and cleistogamous flower. Give one example of each.
13. Differentiate between Autogamy, Geitonogamy and Xenogamy.
14. Differentiate between microsporogenesis and megasporogenesis. What type of cell division occurs during these events? Name the structure formed at the end of these two events.
15. Draw the embryo sac of a flowering plant and label: (a) Central cell, Chalazal end, Synergids. (b) Name the cell that develops into embryo sac (c) Mention the role of various cells of embryo sac. (d) Give the role of filiform apparatus.
16. Define the term: Parthenogenesis, parthenocarpy, apomixis, and polyembryony.
17. Explain the term emasculation and bagging.
18. What do you mean by double fertilisation?
19. Draw diagram of mature embryo sac.
20. Draw diagram of T.S of mature anther and microsporangium.
21. Draw diagram of mature pollen grain.

Physics

1. Project work: study the factor one which the internal resistance of a cell depends.
2. Prepare the practical file with activity and experiments: Ohm's law and metre Bridge experiments.
3. Create a revision note or Mind Map for the first two chapters.
4. Do the numerical from NCERT book of chapter 1 and 2 .
5. write down formula with dimension and unit related to your syllabus.