



L.R.S. ACADEMY

A Senior Secondary English Medium School, Nagina (Bijnor)
(Affiliated to C.B.S.E. New Delhi)

SUMMER HOLIDAY HOMEWORK

**CLASS
XII (PCM)**



Laying the foundation of excellence

Principal's message

Dear Students,

Summer vacation is a much-awaited time for rest, reflection, and rejuvenation. It offers a wonderful opportunity to relax, explore your interests, and spend quality time with your loved ones.

However, this break also gives you the chance to continue learning beyond the classroom. Read good books, try something creative, and take up activities that help you grow as a person. The holiday homework given to you is designed not just to revise your lessons, but also to encourage independent thinking and creativity.

Make sure to balance fun with responsibility. Stay safe, take care of your health, and use your time wisely. We look forward to seeing you refreshed and recharged after the holidays.

Wishing you a joyful and productive summer break!

Warm regards,

Noopur Chandra

**Principal
LRS Academy, Nagina**

Instructions to do holiday homework -:

- 1. Take separate thin notebook for each subject cover each notebook & label properly.**
- 2. Take care of your handwriting.**
- 3. Cover the notebook properly & label it.**
- 4. school will reopen on 01/07/2025 & Holiday homework will be submitted at the same date.**
- 5. Holiday homework marks will be added in the next exam.**



L. R. S. ACADEMY, NAGINA

HOLIDAY HOME WORK- 2025-26

Class –XII (PCM)

English

1. Visual Contrast Poster: “Dreams vs Reality” (Lost Spring)

Create a poster divided into two halves:

Left: “The Dream” – What the child wants (education, play, freedom)

Right: “The Reality” – What the child gets (work, heat, hunger)

Use drawings or collage cut outs with short captions.

2. Rewrite the Title: “Found Spring”

Write a short narrative or paragraph titled “Found Spring” imagining a happy twist where Saheb goes to school or the bangle children get a new opportunity. What changes? How does life improve?

3. Time-Travel Passport

Design a “Time-Travel Passport” for Charley:

Include personal details (Name: Charley, Destination: 1894)

Stamps: “Grand Central – Third Level”, “Galesburg, Illinois – 1894”

Visa Conditions: “Only valid for seekers of peace and simpler times”

4. Franz is now grown up and works as a schoolteacher in Alsace. He wants to honour his old French teacher, M. Hamel, on the anniversary of The Last Lesson. As Franz, write a notice inviting students, teachers, and townspeople to a "Language Remembrance Day" in honour of M. Hamel and the importance of preserving one's mother tongue.

MATHEMATICS

1. Define Matrix and write all kinds of matrices with an example.

2. How is matrix and determinant relate to each other, show with an example.

3. Make a chart of all the formulae for the following chapters (any one).

Trigonometry, Differentiation, Integration, 3D & Vectors

Note- Chart will submit at the time of Board Practical Activity. It is compulsory for each and every student to bring it in July.

PHYSICS

1. Expression of e.i. field due to ei. Dipole on axial & equatorial position.

2. Two fixed point charges $+4e$ and $+e$ units are separated by a distance (a). Where should the third charge be placed for it to be in equilibrium?

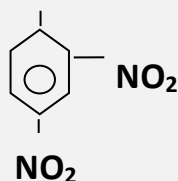
3. All other part application of Gauss v law.
4. Draw all ei. Field lines with properties.
5. Draw all equipotential surfaces with properties.
6. All expression related with parallel plate capacitor.
7. Solve any 5 questions related with Kirchhoff's rules.
8. Solve any 2 questions related with ei. resistivity.
9. Derive expression for potential energy of an ei. dipole in an uniform ei. field.
10. Draw and construct wheat stone bridge with balance condition.

Note:- For numerical, use only helping book.

CHEMISTRY

1. Prepare a project on the given topic as explained in the class.
2. Prepare lab record (only writing as given in the class group)
3. Revise the syllabus done so far.
4. Complete the following chemical equations (for class test)

1. $\text{C}_2\text{H}_5\text{OH} + \text{PCl}_5 \longrightarrow$
2. $\text{C}_2\text{H}_5\text{OH} + \text{PCl}_3 \longrightarrow$
3. $\text{C}_2\text{H}_5\text{OH} + \text{SOCl}_2 \longrightarrow$
4. $\text{C}_2\text{H}_5\text{OH} + \text{NaBr} + \text{H}_2\text{SO}_4 \longrightarrow$
5. $\text{C}_2\text{H}_5\text{OH} \xrightarrow{\text{Red P} / \text{X}_2} \longrightarrow$
6. $\text{C}_2\text{H}_5\text{Cl} + \text{KOH (aq)} \longrightarrow$
7. $\text{C}_2\text{H}_5\text{Cl} + \text{KOH (alcoholic)} \longrightarrow$
8. $\text{C}_2\text{H}_5\text{Cl} + \text{KCN} \longrightarrow$
9. $\text{C}_2\text{H}_5\text{Cl} + \text{AgCN} \longrightarrow$
10. $\text{C}_2\text{H}_5\text{Cl} + \text{KNO}_2 \longrightarrow$
11. $\text{C}_2\text{H}_5\text{Cl} + \text{AgNO}_2 \longrightarrow$
12. $\text{C}_2\text{H}_5\text{Cl} + \text{NaOC}_2\text{H}_5 \longrightarrow$
13. $\text{CH}_3\text{CHO} + \text{NH}_3 \longrightarrow$
14. $\text{CH}_3\text{CHO} + \text{CH}_3\text{NH}_2 \longrightarrow$
15. $\text{CH}_3\text{CHO} + \text{NH}_2\text{OH} \longrightarrow$
16. $\text{CH}_3\text{CHO} + \text{NH}_2\text{NH}_2 \longrightarrow$
17. $\text{CH}_3\text{CHO} + \text{C}_6\text{H}_5\text{NHNH}_2 \longrightarrow$
18. $\text{CH}_3\text{CHO} + \text{NHNH}_2 \longrightarrow$



19. $\text{CH}_3\text{CHO} + \text{NH}_2\text{NHCONH}_2 \longrightarrow$
20. $\text{C}_2\text{H}_5\text{OH} \xrightarrow[573\text{K}]{\text{Cu}} \longrightarrow$

21. $\text{CH}_3\underset{\text{OH}}{\text{CH}}\text{CH}_3 \xrightarrow[573\text{K}]{\text{Cu}} \longrightarrow$
22. $(\text{CH}_3)_3\text{C-OH} \xrightarrow{\text{Cu}/573\text{K}} \longrightarrow$
23. $\text{CH}_3\text{OCH}_3 + \text{HI} \longrightarrow$
24. $\text{CH}_3\text{OCH}_3 + 2\text{HI} \longrightarrow$
25. $\text{C}_6\text{H}_5\text{OCH}_3 + \text{HI} \longrightarrow$
26. $\text{CH}_3\text{CH}_2\text{CH}_2\text{OCH}_3 + \text{HI} \longrightarrow$
27. $(\text{CH}_3)_2\text{CHOCH}_3 + \text{HI} \longrightarrow$
28. $(\text{CH}_3)_3\text{CHOCH}_3 + \text{HI} \longrightarrow$
29. $(\text{CH}_3)_3\text{C Br} + \text{NaOCH}_3 \longrightarrow$
30. $(\text{CH}_3)_3\text{C ONa} + \text{CH}_3\text{ Br} \longrightarrow$

PHYSICAL EDUCATION

Practical 1- Fitness test administration (SAI Khelo India Test) – Battery of test for age group 9 to 18)

Practical 2- 5 lifestyle disease and 2 curative Asanas for each lifestyle disease with their procedure, Benefits and contraindications (Total 10 asanas)

Practical 3- Any one IOA recognized sport/game of your choice.

Note :-

- It is compulsory to label the diagram of each activity.