



ESTEEM PUBLIC SCHOOL

A Senior Secondary School (10+2)
Affiliated to CBSE, Delhi



HOLIDAY HOMEWORK OF PUJA VACATION (2025-26)

CLASS – XII (Only for the students of Chaliyama Branch)

ENGLISH

Homework : Write a character sketch of your grandmother (either parental or maternal).

Assignments : Prepare a writeup and learn these topics for ASL.

- Child Labour
- Importance of dress – code in schools
- Poverty in India
- Digital India
- Tourism in India

MATHS

Homework : Make all PY Qs from the year 2022 to 2025.

Assignments : Make following assignment work.

Activity 1 – To understand the concept of decreasing and increasing function.

Activity 2 – To understand the concept of absolute maximum and minimum values of a function in a given closed interval through its graph.

Activity 3 – To verify that amongst all the rectangles of the same perimeter, the square has maximum area.

PHYSICS

Homework : Watch two YouTube video of any 4 chapter and write a short note of (50-100) words.

Assignments : Solve 10 Numerical from each chapter upto (ch-09).

Project : Kirchoff's law's verification using simple circuit board.

CHEMISTRY

Homework : Learn and write classification of Halo alkane and halo arine. Also write 5 example of each.

Assignments : Write and describe your answer in your own words of Nucliophilic substitution reaction.
Also write what you observe.

Project : Determine vitamin C content in fruit Juices, and prepare your project on it.

BIOLOGY

Homework : Learn and write the exercise of chapter Biotechnology.

Assignments : Draw a well labelled diagram of female reproductive organ.

Project : Prepare a 3D model or chart of the DNA double helix Structure.

I.T (802)

Homework : Complete the Q/A of chapter-5 (Entrepreneurial Skills – IV)

Project : Create any application using Java netbeans IDE.

PHYSICAL EDUCATION

Homework : Q/A chapter (6-8)

Project : Make a project on different types of injuries.

----- End of the Holiday Homework-----





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ENGLISH

Homework :- Read the story 'The Rat trap' from the book 'Flamingo' and try to decipher it.

Assignments :- Compose your own poem of 5-6 lines (can be more) on any genre of your choice.

PHYSICS

Homework : Solve the PYQ (20 questions) in your physics copy.

Assignments : Explain how a changed orientation in conductor can be made to AC Generator.

Project : Make a project on an AC generator.

BIOLOGY

- Assignments :**
1. Observe a pond or garden ecosystem. List all the biotic and abiotic components and construct a simple food web showing the interactions between producers, consumers, and decomposers.
 2. Investigate the use of tissue culture in plant propagation. Explain the steps involved in the type of plants used, and the benefits of this technique in agriculture.

COMPUTER

Homework : Learn all the Q/A of CH – 05 from Part A.

Assignments : Write all the S Q L Command with examples.

Project : Explain Green Jobs with the help of pictures in an A4 Size Chart paper.

MATHS

- Homework :** (i) Complete all the notes of CH – 7 (i.e., integrals) in C.W. Copy.
(ii) Write and remember all the formulae that you have written so far.

- Assignments :** (i) Discuss the continuity of the function:-

$$f(x) \begin{cases} \frac{e^n - 1}{\log(1 + 2x)}, & x \neq 0 \\ 7, & x = 0 \end{cases}$$

at the point $x = 0$

- (ii) Find the values of a, b and c for which the function is continuous at $x = 0$

$$f(x) \begin{cases} \frac{\sin(a+1)n + \sin x}{x}, & x < 0 \\ c, & x = 0 \\ \frac{(x+bx^2) - x^{1/2}}{bx^{1/2}}, & x > 0 \end{cases}$$

- (iii) If $ax^2 + 2hxy + by^2 = 1$, Show that $\frac{d^2y}{dx^2} = \frac{h^2 - ab}{(hx + by)^3}$

- (iv) Find the Principal value of the following:

(a) $\sin^{-1} \left(\frac{1}{\sqrt{2}} \right)$ (b) $\cos^{-1} \left(\frac{-1}{\sqrt{2}} \right)$ (c) $\tan^{-1} \left(\frac{-1}{\sqrt{3}} \right)$

- (v) If $\cos^{-1} \frac{x}{a} + \cos^{-1} \frac{y}{b} = \theta$, then prove that $\frac{x^2}{a^2} - \frac{2xy}{ab} \cos \theta + \frac{y^2}{b^2} = \sin^2 \theta$

- Project :** Application of Derivatives :-

- Study how derivatives can be used to find maximum and minimum values in real – life situations.
- OR

- Application of Integrals :-

- Explore the use of integrals to calculate areas, volumes or in other practical scenario.
- OR

- Continuity and Differentiability :-

- Investigate the relationship between these two fundamental concepts and their geometrical interpretations.

----- End of the Holiday Homework -----

