SUMMER HOLIDAY HOMEWORK (2026-2027)

CLASS XII

ENGLISH LITERATURE HOME WORK:

1. Analyze how Tarapada's character embodies the theme of existential freedom and detachment from societal norms in Rabindranath Tagore's *Atithi {words 300-350}*.
2. How does the poem Telephone conversation's critique of 'polite' or 'hidden' racism remain relevant in today's era of digital anonymity and housing discrimination?
3. Drawing from Lady Macbeth's admission in Act 3, 'Naught's had, all's spent, / Where our desire is got without content,' how does the modern 'hustle culture'—which often prioritizes ends over ethical means—validate the idea that achieving a goal through moral compromise leads only to a 'barren scepter' of empty success and a permanent loss of peace?
4. Complete the copy of Atithi, Telephone Conversation and Macbeth Act III.

ENGLISH LANGUAGE PROJECT WORK:

An autobiographical Exaperience.

HINDI HOME WORK:

1. निबंध

HINDI PROJECT WORK:

सूरदास

BIOLOGY HOME WORK:

1. Draw all the diagrams of all the chapters 2 times.
2. Write a detailed note on Human Reproduction explaining all the processes.
3. Write a detail note on Central Dogma (Replication, Transcription, Translation).
4. Explain Human evolution with all of its stages in your own words.
5. Write a note on various methods of population control.
6. Explain scopes and applications of Biotechnology.
7. Write a detail note on Water management and treatment.
8. Explain how microbes are essentials for human welfare and industries.
9. Write all the ecological pyramids.
10. Explain Lac operon and gene regulation in data.

Project: As Directed by Mr. Ashish Sir.

COMPUTER HOME WORK & PROJECT WORK:

1. Boolean Algebra
2. Program to separate each character of a String and words and arrange in order according to the potential of each word.
3. Program to create a Pyramid in JAVA.
4. Age calculator program in JAVA

MATHEMATICS HOME WORK:

1. Let A = {1,2,3} and B = {2,4,6}. Define relation R = {(x,y): y = 2x}. Find R.

2. Check whether relation R = {(1,1),(2,2),(3,3)} is reflexive, symmetric and transitive.

3. Show that relation R = {(a,b): a - b is even} is an equivalence relation.

4. Find number of relations from set A to set B if n(A)=3 and n(B)=2.

5. Define a function with two real-life examples.

6. Check whether f = {(1,2),(2,3),(3,4)} is a function.

7. Find domain and range of f(x) = 1/(x-2).

8. Check whether f(x) = 2x + 3 is one-one.

9. Determine whether f(x) = x^2 is onto from R to R.

10. Check if f(x) = 3x - 5 is invertible.

11. Find inverse of f(x) = (x-1)/(x+1).

12. If f(x)=x^2 and g(x)=x+1, find (fog)(x) and (gof)(x).

13. Verify (fog)(x) ¹ (gof)(x) for f(x)=2x+1 and g(x)=3x.

14. Check continuity of piecewise function at x=1.
15. Find range of f(x)=x^2 - 4x + 5.
16. Find domain of f(x)=sqrt(5-x).
17. Check if f(x)=|x| is one-one.
18. Find composite function if f(x)=x+2 and g(x)=x^2.
19. Find inverse of f(x)=5x+7.
20. Determine if relation R={(1,2),(2,3),(3,1)} is transitive.

MATHEMATICS PROJECT WORK:

Probability