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| | **SHARDA VIDYA MANDIR (2026-27)**<br>**Holiday Homework**<br>**Class - X**<br>**Last date of submission of Holiday homework is 20th June 2026** |

**English**

Lencho's "Instagram Profile" (A Letter to God)*

Imagine Lencho had a smartphone. Sketch a rough idea of his photo wall on Instagram on a piece of paper.

What to do?: Draw a 3x3 Instagram photo wall on a sheet.

- Post 1: The beautiful cornfield (Before).

- Post 2: The "frozen pearls" (The hailstorm).

- Post 3: A selfie with the letter to God.

Caption: Write a 1-line caption for each using a quote from the chapter.

Materials required: 1 White chart paper/A4 sheet, black marker, and crayons.

## विषय - हिंदी

गृह कार्य साफ सुंदर अक्षरों में A4 साइज के पेपर में लिखकर फाइल में अपना नाम व रोल नंबर लिखकर फाइल में जमा करना है।

प्रश्न 1. विज्ञापन लेखन (रचनात्मक हिंदी गतिविधि):

- जल संरक्षण की जागरूकता हेतु विज्ञापन
  अथवा
  पर्यावरण संरक्षण की जागरूकता हेतु विज्ञापन
- अथवा

प्रश्न 2. मेरा ग्रीष्म अवकाश" या "एक यादगार गर्मी की छुट्टी" विषय पर लघुकथा लिखिए।

प्रश्न 3. वाचन एवं श्रवण कौशल का मूल्यांकन:

- 'तीसरी कसम' (राजकपूर अभिनीत फिल्म) देखकर पात्र का संक्षिप्त परिचय एवं 1 पेज समीक्षा लिखिए।

- प्रश्न 3. भक्तिकाल के संत कवि कबीरदासजी का जीवन परिचय सचित्र एवं पाँच दोहे अर्थ सहित लिखिए।

## संस्कृत

I . परिभाषां उदाहरणानि च लिखत।

1. स्वर संधि - यण्, अयादि,

पूर्वरूप संधि

2. विसर्ग संधि - उत्व, रत्व, विसर्ग का लोप

II. अधोलिखित अव्यय पदाना वाक्येषु प्रयोगं कृत्वा लिखत।

उच्चैः, च, श्वः, अद्य ,अत्र, तत्र, यत्र, कुत्र, अधुना, सम्प्रति, सहसा, वृथा,

इतस्ततः, यावत् - तावत्, कुतः।

**MATHS**

1. If one zero of the quadratic polynomial $x^2 + 3x + k$ is 2, find the value of k.
2. Write the number of zeroes of a polynomial p(x) whose graph does not intersect the x-axis at any point.
3. If α and β are zeroes of the polynomial $2x^2 – 5x + 7$, find the value of α + β.
4. Find the zeroes of the quadratic polynomial $x^2 – 2x – 8$ and verify the relationship between the zeroes and the coefficients.
5. Find a quadratic polynomial whose zeroes are $(2 + \sqrt{3})$ and $(2 – \sqrt{3})$.
6. If α and β are zeroes of $x^2 – 6x + a$, and $3α + 2β = 20$, find the value of a.
7. If the sum of the zeroes of the polynomial $kx^2 + 2x + 3k$ is equal to their product, find the value of k.
8. Divide the polynomial $3x^2 – x^3 – 3x + 5$ by $x – 1 – x^2$ and find the quotient and remainder.
9. If α and β are zeroes of $x^2 – (k + 6) x + 2(2k – 1)$, and $αβ = \frac{1}{2}(α + β)$, find the value of k.
10. Find the zeroes of the polynomial $6x^2 – 3 – 7x$ and verify the relationship between the zeroes and the coefficients.
11. If α and β are zeroes of the polynomial $x^2 – x – 2$, find a polynomial whose zeroes are $2α + 1$ and $2β + 1$.
12. Find all zeroes of the quadratic polynomial $abx^2 + (b^2 - ac) x - bc$.
13. If one zero of the quadratic polynomial $p(x) = x^2 + 4kx – 25$ is negative of the other, find the value of K
14. If α and β are zeroes of the quadratic polynomial $p(x) = x^2 – 5x + 4$, find the value of $1/α + 1/β – 2αβ$.
15. If α and β are the zeroes of the polynomial$(x) = x^2 - 5x + k$ such that $α - β = 1$. Find the value of K
16. Find the zeroes of the quadratic polynomial $5x^2 – 4 – 8x$ and verify the relationship between the zeroes and the coefficient of the polynomial.
17. Find the quadratic polynomial whose zeroes are 1 and –3. Verify the relation between the coefficients and the zeroes of the polynomial.

18. If one zero of the polynomials $(a^2 – 9) x^2 + 13x + 6a$ is reciprocal of the other, find the value of 'a'.

**Case Study Questions**

19. A ball is thrown in the air. The height h (in metres) of the ball above the ground at time t seconds is modelled by the polynomial $h(t) = – 4t^2 + 16t$. A student analyses this polynomial to understand the motion.
    (a) Find the zeroes of the polynomial h(t).
    (b) What is the physical significance of each zero in the context of this problem?
    (c) Verify the relationship between the zeroes and the coefficients of h(t).

20. A teacher draws the graph of a polynomial y = p(x) on the board. The graph is a parabola that opens upwards, crosses the x-axis at x = –1 and x = 3, and passes through the point (0, –3).
    (a) How many zeroes does p(x) have? What are they?
    (b) Write p(x) as a quadratic polynomial using its zeroes and the given point.
    (c) Find the sum and product of zeroes of p(x) and verify using the coefficients.

## SCIENCE

### PHYSICS

Draw a creative chart showing how electricity flows in your home.
Start from power source and show it reaching different appliances.
Use simple drawings like bulb, fan, TV, charger, etc.
Use arrows to show flow of current.
Add 2–3 short labels only.
Focus on neatness, colours, and creativity.

### CHEMISTRY

Q.1Write following experiments in your chemistry file-

(i) To find the pH of the following samples by using pH paper/universal indicator-

(a) Dilute hydrochloric acid (b) Dilute sodium hydroxide (NaOH) solution

(c) Dilute ethanoic acid solution (d) Lemon juice

(e) Water (f) Dilute sodium bicarbonate solution

(ii) To study the properties of acids and bases (dilute HCl and dilute NaOH ) by their reaction with-

(a) Litmus solution (b) Zinc metal (c) Solid sodium carbonate

(iii) To perform and observe the following reactions and classify them into-

(a) Combination reaction (b) Decomposition reaction

(c) Displacement reaction (d) Double decomposition reaction

Q.2. Make the neat and clean colourful diagrams on chart paper using your own creativity on the following topics according to your Roll no.

1. 1 to 8 Combination reaction

2. 9 to 16 Thermal decomposition reaction

3. 17 to 24 Electrolytic decomposition reaction

4. 25 to 32 Photolytic decomposition reaction

5. 33 to till last Roll no. Displacement and double displacement reaction.

**BIOLOGY**

Q.1Write following experiments in your biology file-

Experiment-1 To prepare a temporary mount of a leaf peel to show stomata.

Experiment-2 To show experimentally that carbon dioxide is given out during respiration.

Experiment-3 To study binary fission in amoeba and budding in yeast with the help of prepared slides

(a) binary fission in Amoeba Experiment

(b) budding in yeast with the help of prepared slides.

Q.2 Creative Chart Paper

Draw the diagram on chart paper-

(i)From roll no.1 to 5 Open and closed stomatal pore

(ii) From roll no. 6 to 10 Human alimentary canal

(iii) From roll no. 11 to 15 Human respiratory system

(iv) From roll no. 16 to 20 Schematic sectional view of the human heart

(v) From roll no. 21 to 25 Schematic representation of transport and exchange of oxygen and carbon dioxide

(vi) From roll no. 26 to 30 Excretory system of human

(vii)From roll no.31 to 35 Structure of nephron

(viii) From roll no. 36 to 40 Haemodialysis

**Social science**

Chapter- 4. Globalisation and the Indian Economy

Subtopics: What is Globalisation?

Factors that have enabled Globalisation.

Interdisciplinary Project with chapter 3 of History: "The Making of a Global World" and chapter 7 of Geography: "Lifelines of National Economy"

Subtopics: i. Production across the countries

ii. World Trade Organisation

iii. The Struggle for a Fair Globalisation

**PAINTING (Fine arts)**

1) Make one traditional art (Madhubani).

2) Figure drawing Practice with 5 different actions (as given in the class)

Note :- Use A2 size sheet for Traditional art and A4 size sketch book for figure drawing practice.