

**Delhi Public School, Gandhinagar**  
**Academic Session-2022-23**  
**Class : X**

**Subject**      **Holiday Homework**

**English**

The recent pandemic of COVID-19 that initiated from China is an example of Human Desire to overpower the world. There are many ideas about how the world will end. Do you think the world will end someday? Have you ever thought what would happen if the sun got so hot that it 'burst', or grew colder and colder? Suggest some ideas (120-150 words) how we can make this world a better place to live in. Paste/draw symbols of peace, harmony and universal brotherhood to make your work look creative, on an A4 size coloured paper.

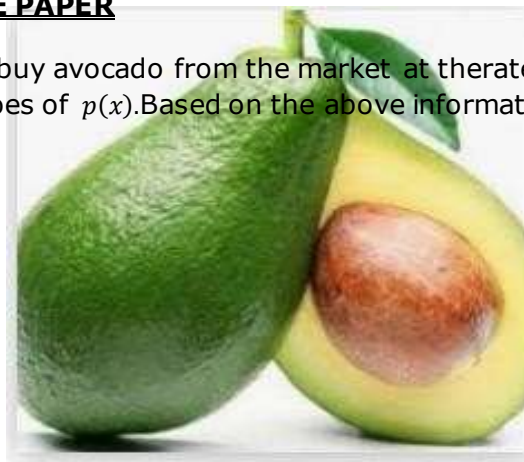
**Hindi**

'जल संरक्षण' विषय पर 25-50 शब्दों में एक विज्ञापन तैयार कीजिए। 'बड़े भाई साहब' पाठ में से कोई दस मुहावरे चुनकर उनका वाक्य में प्रयोग कीजिए। (A4 size paper)

**Maths**

**ANSWER THE FOLLOWING ON AN A4 SIZE PAPER**

1. Rohan's father gave him some money to buy avocado from the market at the rate of  $p(x) = x^2 - 24x + 128$ .  $\alpha$  and  $\beta$  are the zeroes of  $p(x)$ . Based on the above information, answer the following questions.



- I.** Find the value of  $\alpha$  and  $\beta$ , where  $\alpha < \beta$
- II.** Find the value of  $\alpha^2 + \beta^2 + \alpha\beta$ .
- III.** Find the value of  $p(-3)$ .
- IV.** If  $\alpha$  and  $\beta$  are the zeroes of  $x^2 - 5x - 24$ , find the value of  $\alpha^3 + \beta^3 - 5\alpha\beta$ .
- V.** If sum of the zeroes of
- VI.**  $p(x) = kx^2 + 2x + 3k$  is equal to their product, then find the value of  $k$ .

2. School authorities decided to break the monotony of the school academics and wanted to arrange a picnic for the students of class X. The bus in-charge has to arrange the buses for the picnic. The students are divided into 3 groups according to their sections of class. The students in group A are 156, group B are 208 and group C are 260. Buses had to be hired according to the number of students.



Based on the above information, answer the following questions.

	<p><b>I.</b> Calculate the minimum number of students of a particular group that can be accommodated in each bus.</p> <p><b>II.</b> What are the minimum number of buses required to accommodate all the students?</p> <p><b>III.</b> Calculate the LCM of 156 and 208, by using the formula of the relation between HCF and LCM.</p> <p><b>IV.</b> If LCM of 156 and 260 is <math>8m + 4</math>, then what is the value of <math>m</math>?</p> <p><b>V.</b> Find the prime factorisation of the product of HCF and LCM of 156, 208 and 260.</p>
<b>Science</b>	<p><b>To be done on A4 size paper.</b></p> <p><b>Chemistry:</b> Depict the given type of chemical reaction in pictorial form relating to a real-life example. (Discussed in class as per roll.no.)</p> <p>Write the balanced chemical equation for this example and give the colour of both reactants and products. Define the given type of chemical reaction and write its two applications.</p> <p><b>Biology:</b> Draw a flowchart to explain the process of digestion in humans along with the diagram of human digestive system.</p> <p><b>Physics:</b> Draw ray diagram rules for obtaining image of an object placed in front of a concave mirror (all 4 rules). Prepare ray diagrams using materials match-sticks, straws, moulding clay, broken bangles etc and explain the rules.</p>
<b>Social Science</b>	<p><b>Topic: Major soils of India</b></p> <p>Make a table of major soils found in India based on the following headings:</p> <ol style="list-style-type: none"> <li>1. Formation</li> <li>2. Areas</li> <li>3. Major characteristics</li> <li>4. Major crops grown.</li> </ol> <p>Present it on A4 size paper.</p>
<b>Sanskrit</b>	<p>संस्कृत कथालेखनम् Write 2 Sanskrit stories on A4 Size Paper. Students can Paste Pictures.</p>
<b>Computer Science</b>	<p>Write any 5 commonly used domain IDs. Explain the purpose and give an example of each. To be done in the Notebook.</p>