

HOLIDAY HOMEWORK 2024-25

ENGLISH

CLASS X

- 1. Prepare your Portfolio for session 2024-25**
- 2. Prepare a brochure on sustainable tourism in Lakshadweep. It should include photographs of different tourist destinations, places to visit and importance of each (in bullet points). Also include the area and scope of sustainability in the territory. The best brochures will be displayed on the class display boards**
- 3. Revise the syllabus covered in April and May**
- 4. Go for a morning walk daily. Watch nature. Use a camera and capture the photographs of different birds/ animals. It will be good if the birds/animals are unique. The best photographs will be published in the school magazine.**
- 5. Prepare an article/ a poem/ painting/ a cartoon for school magazine (for those who are interested)**

ग्रीष्मकालीन अवकाश गृहकार्य कक्षा दसवीं

1. सत्र 2024-25 के लिए अपना पोर्टफोलियो तैयार करें।
2. कस्बों, शहरों, महानगरों के चौराहों पर किसी-न-किसी क्षेत्र के प्रसिद्ध व्यक्ति की मूर्ति लगाने का प्रचलन-सा हो गया है।
 - (क) इस तरह की मूर्ति लगाने के क्या उद्देश्य हो सकते हैं?
 - (ख) आप अपने इलाके के चौराहे पर किस व्यक्ति की मूर्ति स्थापित करवाना चाहेंगे और क्यों?
 - (ग) उस मूर्ति के प्रति आपके एवं दूसरे लोगों के क्या उत्तरदायित्व होने चाहिए?
3. (इच्छुक विद्यार्थी) विद्यालय पत्रिका 'मृगावती' के लिए एक लेख / कविता / पेंटिंग / कार्टून तैयार करें।
4. "सामाजिक जीवन में क्रोध की ज़रूरत बराबर पड़ती है। यदि क्रोध न हो तो मनुष्य दूसरे के द्वारा पहुँचाए जाने वाले बहुत-से कष्टों की चिर-निवृत्ति का उपाय ही न कर सके।"- आचार्य रामचंद्र शुक्ल जी का यह कथन इस बात की पुष्टि करता है कि क्रोध हमेशा नकारात्मक भाव के लिए नहीं होता, बल्कि कभी-कभी सकारात्मक भी होता है। इसके पक्ष या विपक्ष में अपना मत प्रकट कीजिए ।
5. अप्रैल-मई में करवाए गए पाठ्यक्रम की पुनरावृत्ति करें।

Chapter Real Numbers

Q.1 Given that $\text{HCF}(306, 657) = 9$, find $\text{LCM}(306, 657)$.

Q.2 Prove that $3 + 2\sqrt{5}$ is irrational.

Q.3 Without actually performing the long division, state whether the following rational numbers will have a terminating decimal expansion or a non-terminating repeating decimal expansion:

(i) $13/3125$ (ii) $17/8$ (iii) $64/455$ (iv) $15/1600$

Q.4 Check whether 6^n can end with the digit 0 for any natural number n .

Q.5 What is the HCF of the smallest prime number and the smallest composite number?

Chapter Polynomial

Q.1: Find the value of “ p ” from the polynomial $x^2 + 3x + p$, if one of the zeroes of the polynomial is 2.

Q.2 Does the polynomial $a^4 + 4a^2 + 5$ have real zeroes?

Q.3: Compute the zeroes of the polynomial $4x^2 - 4x - 8$. Also, establish a relationship between the zeroes and coefficients.

Q.4 Find the value of “ x ” in the polynomial $2a^2 + 2xa + 5a + 10$ if $(a + x)$ is one of its factors.

Q.5 : How many zeros does the polynomial $(x - 3)^2 - 4$ have? Also, find its zeroes.

Chapter Linear equations in 2 variables

Q.1: The cost of 2 kg of apples and 1kg of grapes on a day was found to be Rs.160. After a month, the cost of 4 kg of apples and 2 kg of grapes is Rs.300. Represent the situation algebraically.

Q.2: Half the perimeter of a rectangular garden, whose length is 4 m more than its width, is 36 m. Find the dimensions of the garden.

Q.3: On comparing the ratios a_1/a_2 , b_1/b_2 , and c_1/c_2 , find out whether the following pair of linear equations are consistent, or inconsistent.

(i) $3x + 2y = 5$; $2x - 3y = 7$

(ii) $2x - 3y = 8$; $4x - 6y = 9$

Q.4: Solve the following pair of linear equations by the substitution method.

(i) $x + y = 14$
 $x - y = 4$

(ii) $3x - y = 3$
 $9x - 3y = 9$

Q.5: Solve $2x + 3y = 11$ and $2x - 4y = -24$ and hence find the value of 'm' for which $y = mx + 3$.

Chapter Quadratic Equations

Q.1: Represent the following situations in the form of quadratic equations:

(i) The area of a rectangular plot is 528 m^2 . The length of the plot (in metres) is one more than twice its breadth. We need to find the length and breadth of the plot.

(ii) A train travels a distance of 480 km at a uniform speed. If the speed had been 8 km/h less, then it would have taken 3 hours more to cover the same distance. What is the speed of the train?

Q.2: Find the roots of quadratic equations by factorisation:

(i) $\sqrt{2}x^2 + 7x + 5\sqrt{2} = 0$

(ii) $100x^2 - 20x + 1 = 0$

Q.3: Find two consecutive positive integers, the sum of whose squares is 365.

Q.4: Find the roots of the following quadratic equations, if they exist, :

(i) $2x^2 - 7x + 3 = 0$

(ii) $2x^2 + x - 4 = 0$

Q.5: The diagonal of a rectangular field is 60 metres more than the shorter side. If the longer side is 30 metres more than the shorter side, find the sides of the field.

Arithmetic Progression

Q.1 Find the sum: $34 + 32 + 30 + \dots + 10$

Q.2 How many terms of the AP: 9, 17, 25, ... must be taken to give a sum of 636?

Q.3 Find the sum of the odd numbers between 0 and 50.

Q.4: If the 3rd and the 9th terms of an AP are 4 and -8, respectively, then which term of this AP is zero.

Q.5: The sum of 4th and 8th terms of an AP is 24 and the sum of the 6th and 10th terms is 44. Find the first three terms of the AP

Coordinate Geometry

Q. 1: Find the distance of the point P (2, 3) from the x-axis.

Q. 2: Find a relation between x and y such that the point (x, y) is equidistant from the points $(7, 1)$ and $(3, 5)$.

Q. 3: Find the coordinates of the points of trisection (i.e., points dividing into three equal parts) of the line segment joining the points $A(2, -2)$ and $B(-7, 4)$.

Q. 4: Find the ratio in which the line segment joining the points $(-3, 10)$ and $(6, -8)$ is divided by $(-1, 6)$.

Q. 5: Find the value of k if the points $A(2, 3)$, $B(4, k)$ and $C(6, -3)$ are collinear.

HOLIDAY HOMEWORK
SUBJECT- SCIENCE
(SESSION 2024-25)

1. Agenda 2030 refers to the 2030 Agenda for Sustainable Development, which was adopted by all United Nations Member States in 2015. This global framework provides a shared blueprint for peace and prosperity for people and the planet, both now and into the future. At its core are the 17 Sustainable Development Goals (SDGs), which serve as an urgent call to action by all countries—both developed and developing.

Find out more information about any one of the SDG given below

- No Poverty (SDG 1)
- Zero Hunger (SDG 2)
- Good Health and Well-being (SDG 3)
- Quality Education (SDG 4)
- Gender Equality (SDG 5)
- Clean Water and Sanitation (SDG 6)
- Climate Action (SDG 13)

Choose **one** of the SDGs that resonates with you the most. Make a project that includes the following elements:

- a) Introduction:
 - Briefly explain what the SDGs are.
 - State the specific SDG you have chosen and why it is important to you.
- b) Goal Description:
 - Provide a detailed description of your chosen SDG, including its targets and indicators.
- c) Current Status:

- Discuss the current progress towards achieving this goal globally or in a specific region or country.
- d) Challenges:
- Identify and explain the challenges or barriers to achieving this goal.
- e) Personal Connection:
- Share any personal experiences or observations that relate to the goal.
- f) Reflection:
- Propose actions that individuals, communities, or governments could take to advance this goal.

Add pictures, data, maps etc to make it more effective.

2. Draw a well labelled diagram of Human Brain
3. Find some scientific ways to boost your memory, attention and retention.
4. Design a Mind Game! Think about the type of mind game you want to create. It can be a puzzle, a memory game, a riddle-based challenge, or something entirely unique.
5. Look at the periodic table and find the element with the atomic number that matches your class roll number.
 - Gather information about your element, including its name, symbol, atomic mass, and its position in the periodic table.
 - Explore its physical and chemical properties, common uses, and any interesting historical facts or discoveries related to it.
6. Do the Comparative Analysis of Concave Mirrors and Convex Lenses
 - Document the characteristics of the images formed at various distances from the mirror/lens.
 - Include ray diagrams to illustrate your observations.

Summer Vacation Holiday Homework

(Session : 2024-25)

Class- X

Subject : Social Science

1) Make a Interdisciplinary project on the following topic (Any one)

- a) Consumer Awareness
- b) Social Issues
- c) Sustainable Development

2) Map Work :-

- 1) Congress sessions:
- 2) 1920 Calcutta 3)
1920 Nagpur.
- 4) 1927 Madras session
- 5) Major soil Types
- 6) Salal
- 7) Bhakra Nangal
- 8) Tehri
- 9) Rana Pratap Sagar
- 10) Sardar Sarovar
- 11) Hirakud
- 12) Nagarjuna Sagar
- 13) Tungabhadra
- 14) Kandla
- 15) Mumbai
- 16) Marmagao
- 17) New Mangalore 18) Kochi

3) Read the chapters done so far from your NCERT textbooks and form at least 40 very short objective type questions with answers from each chapter.

4) Choose a prominent leader or personality from history, such as Mahatma Gandhi, Nelson Mandela, or Martin Luther King Jr. Write a comprehensive biography highlighting their life, contributions, and impact on society. Include relevant pictures and quotes.

5) Select an economic issue, such as inflation, poverty, or unemployment, and conduct a detailed analysis of its causes and consequences. Explore potential strategies and policies to address the issue. Support your analysis with relevant statistics and case studies.

Summer Vacation Holiday Homework
(Session : 2024-25) Class- X
Subject : Sanskrit

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वषयः . सं कृतम्

1 के षि चत्प च - प ाणाम त थाना न म जषू -सहायतया परयत।०

2 प च -च ं वा प च - प च वा या न सं कृतभाषायां लखत ।

3 न नश द पा ण लखत मरत च -

मनु, अ म, यमु, कम्- (षु ल गेषु)

4 न नधातपा णु लखत मरत च -

(अस्, भू, गम्, श्, वस्)