



SESSION 2021-22

HOLIDAY HOMEWORK

CLASS X

ENGLISH :

1. Make a project file on ' Inclusive Education' about Differently abled children using pictures, real life stories. It is about five to six pages.
2. Smart phones is one of the means of communication today. But had also become a nuisance for some. Write an article in around 120 words. You are Sneh/ Sneha of class X. You may take the help from the following inputs.

Important means of communication- connects a person socially - keeps people updated, has become virtual companion- many disadvantages- disrupts peace of mind- a constant source of disturbance- excessive usage- leads to mental health disorder - cause of deadly accident on roads - biggest distraction for students- should be used wisely- use to be minimise

3. Prepare a beautiful biography of Nelson Mandela based on the chapter Nelson Mandela.

4. Enhance your vocabulary by reading the prescribed books given below.

a. The diary of a young girl by Anne Frank

b. The Story of my life by Helen Keller

Write the plot of the story from anyone book mentioned above.

Write the characteristics of ' Anne' from the book ' The Story of a young girl'

Or

Write the characteristics of 'Helen Keller' and 'Anne Sullivan'

HINDI :

प्रश्न १ ग्लोबल वार्मिंग के कारण ऋतुओं में क्या परिवर्तन आ रहे हैं? इस समस्या से निपटने के लिए आप की क्या भूमिका हो सकती है?

प्रश्न २ फागुन में गाए जाने वाले गीतों के बारे में जानकारी एकत्र कीजिए और एक चित्र सहित परियोजना तैयार कीजिए।

प्रश्न ३ इलेक्ट्रॉनिक एवं प्रिंट मीडिया द्वारा आपने किसानों की स्थिति के बारे में बहुत कुछ सुना देखा और पढ़ा होगा। एक सुदृढ़ कृषि व्यवस्था के लिए आप अपने सुझाव देते हुए अखबार के संपादक को पत्र लिखिए।

प्रश्न ४ आपके विद्यालय में किसी प्रसिद्ध गायिका की गीत प्रस्तुति का आयोजन है इस संबंध पर सूचना पट्ट के लिए एक नोटिस तैयार कीजिए।

प्रश्न ५ पतंजलि सामंती वर्ग का चित्रण प्रेमचंद ने अपनी एक प्रसिद्ध कहानी शतरंज के खिलाड़ी में किया था और फिर बाद में सत्यजीत राय ने इस पर इसी नाम से एक फिल्म भी बनाई थी यह कहानी ढूंढ कर पढ़िए और संभव हो तो फिल्म भी देखिए वह इस कहानी की समीक्षा कीजिए।

MATH :

CHAPTER 1

1. Use Euclid's division algorithm to find the HCF of:
(i) 135 and 225
(ii) 196 and 38220
2. Prove that the square of any positive integer is of the form $4q$ or $4q + 1$ for some integer q .
3. Prove that $(3 - \sqrt{5})$ is an irrational number.
4. Use Euclid Division Lemma to show that cube of any positive integer is either of the form $9m$, $(9m + 1)$ or $(9m + 8)$.
5. 2. Without actually performing the long division, state whether the following rational numbers will have a terminating decimal

expansion or a non-terminating decimal expansion.

(i) $\frac{13}{3125}$ (ii) $\frac{17}{8}$ (iii) $\frac{64}{455}$ (iv) $\frac{15}{1600}$

6. Show that any number of the form 6^x , $x \in \mathbf{N}$ can never end with the digit 0.

CHAPTER 2

1. If the square of the difference of the zeros of the quadratic polynomial $f(x) = x^2 + px + 45$ is equal to 144, find the value of p .
2. Divide $(6x^3 - 26x - 21 + x^2)$ by $(-7 + 3x)$.
3. If α and β are the zeros of the quadratic polynomial $f(x) = x^2 - p(x + 1) - c$, show that $(\alpha + 1)(\beta + 1) = 1 - c$.
4. Find the zeros of the polynomial $p(x) = 4\sqrt{3}x^2 + 5x - 2\sqrt{3}$ and verify the relationship between the zeros and its coefficients.
5. If two zeros of the polynomial $x^4 - 6x^3 - 26x^2 + 138x - 35$ are $2 \pm \sqrt{3}$, find the other zeros.
6. What must be added to $6x^5 + 5x^4 + 11x^3 - 3x^2 + x + 5$ so that it may be exactly divisible by $3x^2 - 2x + 4$?
7. Find all zeros of $f(x) = 2x^3 - 7x^2 + 3x + 6$ if its two zeros are $-\sqrt{\frac{3}{2}}$ and $\sqrt{\frac{3}{2}}$.
8. Divide the polynomial $p(x)$ by the polynomial $g(x)$ and find the quotient and remainder in each of the following.
 - (i) $p(x) = x^3 - 3x^2 + 5x - 3$, $g(x) = x^2 - 2$
 - (ii) $p(x) = x^4 - 3x^2 + 4x + 5$, $g(x) = x^2 - x + 1$

9. Find the zeroes of the following quadratic polynomials and verify the relationship between the zeros and the coefficients.
- (i) $x^2 - 2x - 8$
(ii) $4s^2 - 4s + 1$
10. Find a quadratic polynomial each with the given numbers as the sum and product of its zeroes respectively.
- (i) $\frac{1}{4}, -1$
(ii) $\sqrt{2}, 13$

Chapter 3

1. Half the perimeter of a rectangle garden, whose length is 4 m more than its width, is 36 m. Find the dimensions of the garden.
2. Find the values of α and β for which the following system of linear equations has infinite number of solutions, $2x + 3y = 7$,
 $2\alpha x + (\alpha + \beta)y = 28$.
3. Find the condition for which the system of equations $\frac{x}{a} + \frac{y}{b} = c$ and $bx + ay = 4ab$ ($a, b \neq 0$) is inconsistent.
4. Find the value of ' α ' so that the following linear equations have no solution
 $(3\alpha + 1)x + 3y - 2 = 0, (\alpha^2 + 1)x + (\alpha - 2)y - 5 = 0$
5. Given the linear equation $(2x + 3y - 8 = 0)$, write another linear equation in two variables such that the geometrical representation of the pair so formed is:
- (i) Intersecting lines
(ii) Parallel lines
(iii) Coincident lines

6. Solve $2x+3y=11$ and $2x-4y=-24$ and hence find the value of 'm' for which $y=mx+3$.
7. A two-digit number is obtained by either multiplying the sum of the digits by 8 and adding 1 or by multiplying number. How many such numbers are there?
8. If 2 is added to the numerator of a fraction, it reduces to $\frac{1}{2}$ and if 1 is subtracted from the denominator, it reduces to $\frac{1}{3}$. Find the fraction.
9. Solve the following system of equation graphically.
 $x + 2y = 1$, $x - 2y = -7$, also read the points from the graph where the lines meet the x-axis and y-axis.
10. A leading library has a fixed charge for the first three days and an additional charge for each day thereafter Sarika paid Rs. 27 for a book kept for seven days, while Sury paid Rs. 21 for the book she kept for five days, find the fixed charge and the charge for each extra day.

ACTIVITY

- **Maths Lab Manual – Linear Equations**

Objective

To verify the conditions for consistency of a system of linear equations in two variables by graphical representation.

SCIENCE :

PHYSICS :

1. Answers the following questions
 - (a) State the ohms law.
 - (b) Derive an expression for equivalent resistance for three resistors having value R_1 , R_2 and R_3 when connected in parallel combination.
 - (c) A piece of wire of resistance R is cut into five equal parts. These parts are then connected in parallel. If the equivalent resistance of this combination is R^* , then find the ratio R/R^* .
2. A cable of resistance of resistance 12Ω carries electric power from a generator producing 250 kW at 10,000V. Calculate:
 - (a) The current in the cable,
 - (b) The power lost in the cable during transmission, and
 - (c) The potential difference across the ends of the cable.
3. Answer the following questions:
 - (a) Derive an expression for equivalent resistance of a combination of three resistors having resistances R_1 , R_2 and R_3 respectively when connected in series.
 - (b) How can three resistances of 2, 3 and 6 ohms be connected so as to give a total resistance of 1 ohm? Justify your answer.
 - (c) Calculate the numbers of electrons constituting one coulomb of charge.
4. Describe an experimental setup for ohm's law.
5. Prepare a working model on electricity.

CHEMISTRY :

1. Write the name of some (at least 10) chemical compounds that you use in your day to day life. Classify them as acids, bases and salts.
2. Write the name of acid present in the following. (i) Apple (ii) Curd (iii) Vinegar (iv) Lemon (v) Orange (vi) Bee sting (vii) Tamarind
3. Which gas is filled in the chips packets to prevent rancidity and why?
4. Name two salts that are used in black and white photography
5. Balance the following reactions:
 - a. $\text{CO}_2 + \text{H}_2\text{O} \rightarrow \text{C}_6\text{H}_{12}\text{O}_6 + \text{O}_2$
 - b. $\text{SiCl}_4 + \text{H}_2\text{O} \rightarrow \text{H}_4\text{SiO}_4 + \text{HCl}$
 - c. $\text{Al} + \text{HCl} \rightarrow \text{AlCl}_3 + \text{H}_2$
 - d. $\text{Na}_2\text{CO}_3 + \text{HCl} \rightarrow \text{NaCl} + \text{H}_2\text{O} + \text{CO}_2$
 - e. $\text{C}_7\text{H}_6\text{O}_2 + \text{O}_2 \rightarrow \text{CO}_2 + \text{H}_2\text{O}$

BIOLOGY :

1. Write the answers for following questions in your

Biology notebook:

- a) Why is small intestine in herbivores longer than in carnivores?
 - b) Define the following : (a) Emulsification (b) Peristalsis
 - c) Name all digestive enzymes present in our digestive system.
 - d) Explain the process of digestion of carbohydrates, fats and proteins.
 - e) Draw a diagram depicting the Human Alimentary canal and label on it, Gall Bladder, liver and pancreas.
 - f) State the role of liver and pancreas.
 - g) Name the organ which performs the following functions in humans:
 - (i) Absorption of digested food
 - (ii) Absorption of water
2. Make the given project on the assigned topic of Ch 15 Management of Natural Resources.

SOCIAL SCIENCE :

History

Answer the following question within 120 words:

1. What is meant by the 1848 revolution of the liberals? What were the political, social and economic ideas supported by the liberals.
2. Choose three examples to show the contribution of culture to the growth of Nationalism in Europe?

3. Why did Nationalist tension emerge in the Balkans?
4. How was the history of nationalism in Britain unlike the rest of Europe?

Activity:

Collect examples of pictures, posters that are symbols of nationalism.

Geography

- Project Activity: Make a project showing consumption and conservation of resources in your locality

Answer the following question within 120 words:

1. Explain the land use pattern in India and why has the land under forest not increased much since 1960-61?
2. How has technical and economic development led to more consumption of resources?
3. What type of soil is found in the river deltas of the eastern coast? Give three main features of this type of soil.
4. Name three states having black soil and the crop which is mainly grown in it.
5. What are the biotic and abiotic resources? Give some examples.

Political Science

Answer the following question within 120 words:

1. What are the different forms of power-sharing in modern

democracies? Give an example of each of these.

2. What do you mean by ethnic conflict. In Srilanka the policies of the government sought to ensure dominance of Singhala speaking community
3. State one prudential reason and one moral reason for power-sharing with an example from the Indian context.

Economics

Answer the following question within 120 words:

1. Why do different people have different notions of development?
2. Which of the following explanations are more important and why?
3. In Tamil Nadu, 90% of the people living in rural areas use a ration shop, whereas in West Bengal only 35% of rural people do so. Where would people be better off and why?
4. Explain the Human Development Report.
5. Why do we use averages? Are there any limitations to their use? Illustrate with your own examples related to development.
6. Find out the present sources of energy that are used by the people in India. What could be the other possibilities fifty years from now?

Project Work

1. Make a project on Disaster Management in the time of pandemic
2. Make project on any one of the following:

➤ Labour Migration in Corona

Or

➤ Social Issues or Sustainable Development

General Instructions:

S.No.	Aspects	Marks
A.	Content accuracy, originality and analysis	2
B.	Presentation and creativity	2
C.	Viva Voice	1

COMPUTER SCIENCE :

Create a report file using 10 HTML codes. Run the code and include the output also in the report file.