

## Holiday homework for class X (SOCIAL SCIENCE) (DHIRAJ SHARMA)

File work for different topics for different sections

### CLASS – XA TOPIC – CONSUMER AWARENESS

Following contents may be added for above mention topics

- (i) Aim of consumer awareness
- (ii) Meaning of consumer awareness
- (iii) Need of consumer awareness
- (iv) Consumer Redressal System in India
- (v) No. of consumer rights
- (vi) Consumer responsibilities
- (vii) Major concerns of consumer movement in India
- (viii) Example of consumer Exploitation
- (ix) Conclusion
- (x) Paste pictures from newspaper or handmade pictures as much u can

### CLASS – XB TOPIC – SOCIAL ISSUES

Following contents may be added for above mention topic

- (i) Highlight any one social evil which you feel India is cursed with today
- (ii) Give reasons why we are facing this evil after so many constitutional arrangements
- (iii) Collect data from newspaper or magazine or from your surroundings to prove it is serious social concern and needs to be dealt with utmost priority.
- (iv) Suggest ways to overcome this evil and prepare guidelines for social campaigns.
- (v) Make a collage of newspaper cutting to show how it is affecting our society(Handmade pictures are also acceptable)
- (vi) Write a slogan for any one social evil that you have dealt with.
- (vii) List the programme and policies introduced by the government to eradicate this evil
- (viii) Conclusion
- (ix) Bibliography

### CLASS – XC TOPIC – SUSTAINABLE DEVELOPMENT

Following contents may be added for above mention topic

- (i) What is sustainable development?
- (ii) Is sustainable development just about saving the environment, or other are there other factors involved such as human welfare, construction, politics or economies?
- (iii) Are there any local sustainable development projects?
- (iv) What are the benefits of sustainable development?
- (v) What are some national sustainable projects?
- (vi) What are problems and challenges associated with sustainable development?
- (vii) What are some organizations that are involved in sustainable development?
- (viii) Zero hunger
- (ix) Clean water and sanitation
- (x) Conclusion
- (xi) Bibliography
- (xii) Paste pictures from newspaper or handmade pictures as much u can

**SAINIK SCHOOL CHITTORGARH**  
**SUMMER VACATION HOMEWORK**

SUBJECT - HINDI		
CLASS & SECTIONS: 10 (A, B, C)	SUBJECT TEACHER	B K SINGH
<b>INSTRUCTIONS: सामान्य निर्देश-</b> <ul style="list-style-type: none"><li>• सभी प्रश्नों को क्रमानुसार हल करें।</li><li>• अवकाश के बाद विद्यालय आने पर गृहकार्य जमा करना अति आवश्यक है।</li><li>• यह अवकाश कार्य आप के आंतरिक मूल्यांकन के अंतर्गत बहु-मूल्यांकन (Multiple Assessment) का एक अंग है।</li></ul>		
<p><b>प्रश्न 1.</b> अपने पाठ्य पुस्तक सूच के पदों का संदर्भ सहित व्याख्या कीजिए।</p> <p><b>प्रश्न 2.</b> नेताजी का चश्मा पाठ का सारांश लगभग 150 शब्दों में व्यक्त कीजिए।</p> <p><b>प्रश्न 3.</b> राम-लक्ष्मण परशुराम संवाद को एक कुशल एवं उत्तम संवाद के रूप में लगभग 200 शब्दों में अपनी पाठ्य पुस्तक में दिए गए पद्य के आधार पर व्यक्त कीजिए।</p> <p><b>प्रश्न 4.</b> वर्तमान समय में मोबाइल फ़ोन की उपयोगिता पर आधारित एक छोटा सा संतुलित निबंध (लगभग 200 शब्द) लिखिए। आपको यह भी बताना है कि आप इसका सदुपयोग कैसे करते हैं और इसके अधिक उपयोग से बचने के लिए क्या-क्या तरीके अपनाते हैं?</p> <p><b>प्रश्न 5.</b> अपनी इच्छानुसार पाँच विज्ञापन लेखन लगभग 60-80 शब्दों में व्यक्त कीजिए।</p> <p><b>प्रश्न 6.</b> अपनी इच्छानुसार तीन औपचारिक एवं तीन अनौपचारिक पत्र लगभग 80-100 शब्दों में व्यक्त कीजिए।</p>		

**SAINIK SCHOOL CHITTORGARH**  
**SUMMER VACATION HOMEWORK**

**SUBJECT NAME**

**CLASS & SECTION: X A,B&C**

**SUBJECT TEACHER NAME: GYANESHWAR SINGH**

**INSTRUCTIONS:**

**ASSIGNMENT**

- 1. Chemical reactions and equations**  
All the NCERT textbook questions
- 2. Acid Base and Salt**  
All the NCERT textbook questions(NOTE:- Questions related to acids and Bases only)

# SAINIK SCHOOL CHITTORGARH

## SUMMER VACATION HOLIDAY HOMEWORK

### INFORMATION

**SUBJECT NAME: PHYSICS**

**CLASS & SECTION: X (A,B,C)**

**SUBJECT TEACHER NAME: Mr Bhandarkar C L**

**INSTRUCTIONS: Please prepare file in support of model.**

**Use your own creativity.**

**Marks for projects will be counted for subject**

**Enrichment internal marks.**

### ASSIGNMENT

**CHAPTER1: REFLECTION AND REFRACTION**

**Content 1. SOLVE THE FOLLOWING QUESTIONS.**

1. In order to obtain a real image of magnification 2 using a converging lens of focal length 20 cm, where should an object be placed from the lens?
2. A convex lens is made of a material having refractive index 1.2. If it is dipped in water ( $\mu = 1.33$ ), it will behave like a -----
3. Two thin lenses of power, + 3.5 D and -2.5 D are placed in contact, then the power and focal length of the lens combination is -----
4. The distance between object and the screen is D. Real images of an object are formed on the screen for two positions of a lens separated by a distance 'd'. The ratio between the sizes of two images will be-----
5. In which of the following set, the materials are arranged on the basis of ascending order of their refractive index?  
(a) air, silicon, water, diamond (b) air, silicon, kerosene, diamond (c) air, water, silicon, diamond (d) alcohol, air, silicon, diamond
6. A lens forms a real image of a point object placed on its principal axis. If the upper half of the lens is cut, What is the effect on image formed?
7. A convex lens of focal length 'f' produces a real image of size m-times the size of the object. Then the object distance is-----
8. The R.I of diamond is 2.42, what you understand from it?
9. Magnification is  $m = -1$  what does it mean?
10. The broad wavelength range of visible spectrum is-----
11. Why convex mirror used as rear view mirror?
12. Different objects at different distances are seen by the eye. The parameter that remains constant is-----

**Content 2. Prepare at least one model/project from the following: -**

1. Prepare the chart (3x2 ft) of position and nature of the image formed for the different position of the object in case of concave mirror.
2. Prepare the colourful chart (3X2 ft) for the different defect of vision their causes, defective eye ray diagram and its rectification.
4. Prepare the chart (3x2 ft) of position and nature of the image formed for the different position of the object in case of Lenses.

# SAINIK SCHOOL CHITTORGARH

SUMMER VACATION HOLIDAY HOMEWORK : 2026-27

## INFORMATION

**SUBJECT NAME: BIOLOGY**

**CLASS & SECTION: X A,B,&C**

**SUBJECT TEACHER NAME: BHUPENDRA BIHARI VYAS**

**INSTRUCTIONS : THE GIVEN HOME ASSIGNMENT IS DIVIDED INTO FOUR SECTIONS. ATTEMPT ALL SECTIONS.**

## ASSIGNMENT

### CHAPTER : LIFE PROCESSES

#### Section A: Nutrition (Autotrophic & Heterotrophic)

1. Why is the rate of photosynthesis lower on a very humid day even if there is plenty of sunlight?
2. Herbivores like cows have a much longer small intestine compared to carnivores like tigers. Evaluate the physiological necessity behind this difference.
3. If the bile duct is completely blocked in a person, which specific nutrient will they fail to digest efficiently? Explain the mechanical role of bile in this process.
4. What would happen to a plant if its stomata remained permanently closed to prevent water loss? Discuss the impact on both photosynthesis and temperature regulation.
5. Villi are present in the small intestine but not in the stomach. Justify why this structural adaptation is specific to the site of absorption.
6. "All green plants are autotrophs, but not all autotrophs are green." Explain this statement with reference to deep-sea hydrothermal vent bacteria.
7. Why does the stomach not digest itself, despite secreting highly concentrated Hydrochloric acid (HCl) and protein-digesting enzymes?
8. If a person's pancreas is partially removed, how will it affect both their digestion and their blood sugar levels?
9. Saliva contains an enzyme called amylase. Why does a piece of plain bread start tasting sweet if you chew it for a long time without swallowing?
10. Describe the "compensation point" in a plant—a moment where the rate of photosynthesis exactly matches the rate of respiration. What is the net exchange of gases at this point?

## **Section B: Respiration (Aerobic & Anaerobic)**

11. Why do we get muscle cramps after sudden heavy exercise? Explain the chemical transition that occurs in the muscle cells due to a lack of oxygen.
12. The walls of the alveoli are extremely thin and surrounded by a vast network of capillaries. Why is this "surface-to-volume ratio" critical for a large organism like a human?
13. Why is the rate of breathing in aquatic organisms much faster than in terrestrial organisms? Relate this to the availability of oxygen in different mediums.
14. What is the advantage of having a "residual volume" of air in the lungs after we exhale?
15. If the level of Haemoglobin in a person's blood drops significantly, they feel tired and breathless. Connect the dots between protein deficiency and cellular energy.

## **Section C: Transportation (Human & Plants)**

16. Why is the separation of the right and left sides of the heart useful in mammals and birds, but not as critical in amphibians?
17. What would happen if blood platelets were absent in our body? Describe the immediate danger of a minor cut in such a scenario.
18. Arteries have thick, elastic walls while veins have thin walls with valves. Why are valves absent in arteries but essential in veins?
19. Explain why "Double Circulation" is necessary for maintaining the high metabolic rate and constant body temperature of humans.
20. If the xylem of a plant is mechanically blocked, the plant wilts even if it is watered daily. Explain why the leaves cannot survive without this specific tissue.
21. Transpiration is often called a "necessary evil." Justify this statement by explaining its benefit (ascent of sap) and its cost (water loss).
22. How does the movement of sucrose in the phloem (Translocation) differ from the movement of water in the xylem in terms of energy consumption?
23. Why do the walls of the left ventricle need to be significantly thicker than the walls of the right ventricle?
24. In a high-altitude region where oxygen is scarce, the body increases RBC production. How does this physiological change help the person survive?
25. What is the role of "root pressure" in the transport of water, and why is it insufficient for tall redwood trees?

## **Section D: Excretion**

26. If the "Selective Reabsorption" process in the tubular part of the nephron stops working, how will it affect the volume and composition of the urine produced?

27. Why is the process of "Dialysis" called an artificial kidney? Mention one major difference between a natural kidney and a dialysis machine regarding reabsorption.
28. How do desert plants manage their nitrogenous waste excretion while simultaneously trying to conserve every drop of water?
29. The amount of urine produced is regulated by the body based on two factors. Identify these factors and explain how they maintain homeostasis.
30. Plants do not have a specialized excretory system like animals. Describe three different ways plants "get rid" of their waste products.

# SAINIK SCHOOL CHITTORGARH

## SUMMER VACATION HOLIDAY HOMEWORK

### INFORMATION

**SUBJECT NAME: MATHEMATICS**

**CLASS & SECTION: X A, X B & X C**

**SUBJECT TEACHER NAME: Rakesh Rampuria, Manish jain & Amit Kumar Jha**

#### INSTRUCTIONS:

1. Write with neat and clear hand writing on 100 page blank notebook.
2. Read all the questions carefully before solving.
3. Make a neat cover page with the following details:-
  - a. School Name – SAINIK SCHOOL CHITTORGARH (RAJASTHAN)
  - b. Title- HOLIDAY HOMEWORK – SUMMER VACATION
  - c. Submitted by:- (i). Student name (ii). Class (iii). School number (iv). Session – 2026-27
4. Deadline: Deadline for submitting the assignment is 01 July 2026.

### ASSIGNMENT

#### CHAPTER 1: REAL NUMBERS

- Q.1. The HCF of two numbers is 23 and their LCM is 1449. If one of the numbers is 161, find the other.
- Q.2. Find the largest number which divides 438 and 606 leaving remainder 6 in each case.
- Q.3. Find the least number which when divides 35, 56 and 91 leaves the same remainder 7 in each case.
- Q.4. Three sets of English, Mathematics and Science books containing 336, 240 and 96 books respectively have to be stacked in such a way that all the books are stored subject wise and the height of each stack is the same. How many stacks will be there?
- Q.5. Six bells commence tolling together and toll at intervals of 2, 4, 6, 8, 10, 12 minutes respectively. In 30 hours, how many times do they toll together?
- Q.6. Prove that  $\sqrt{3}$  is irrational.
- Q.7. Explain why  $7 \times 11 \times 13 + 13$  and  $7 \times 6 \times 5 \times 4 \times 3 \times 2 \times 1 + 5$  are composite numbers.
- Q.8. Check whether  $6^n$  can end with the digit 0 for any natural numbers n.
- Q.9. State the fundamental theorem of Arithmetic

#### CHAPTER 2: POLYNOMIALS

- Q.1. Find the zeroes of the polynomial  $x^2 + 1/6x - 2$ , and verify the relation between the coefficients and the zeroes of the polynomial.
- Q.2. Find a quadratic polynomial, the sum and product of whose zeroes are  $\sqrt{2}$  and  $-\frac{3}{2}$ , respectively. Also find its zeroes.
- Q.3. Find the zeroes of the polynomial  $f(x) = 2\sqrt{3}x^2 - 5x + \sqrt{3}$  and verify the relation between its zeroes and coefficients.

Q.4. Find the quadratic polynomial whose zeroes are 2 and -6. Verify the relation between the coefficients and the zeroes of the polynomial.

Q.5. Find the quadratic polynomial, sum of whose zeroes is 8 and their product is 12. Hence, find the zeroes of the polynomial.

Q.6. If  $x = \frac{2}{3}$  and  $x = -3$  are the roots of the quadratic equation  $ax^2 + 2ax + 5x + 10$  then find the value of a and b.

Q.7. If  $(x + a)$  is a factor of the polynomial  $2x^2 + 2ax + 5x + 10$ , find the value of a.

Q.8. If one zero of the polynomial  $x^2 - 4x + 1$  is  $(2 + \sqrt{3})$ , write the other zero.

Q.9. Find a, b are the zeros of polynomial  $a + b = 6$  and  $ab = 4$  then write the polynomial.

Q.10. If 1 is a zero of the quadratic polynomial  $ax^2 - 3(a - 1)x - 1$  is 1, then find the value of a.

### CHAPTER 3 : PAIR OF LINEAR EQUATIONS IN TWO VARIABLES

Q.1. By graphical method, find whether the pair of linear equations are consistent or not. If consistent, solve them.  $3x + y + 4 = 0$ ,  $6x - 2y + 4 = 0$

Q.2. On comparing the ratios  $\frac{a_1}{a_2}$ ,  $\frac{b_1}{b_2}$  and  $\frac{c_1}{c_2}$ , and without drawing them, find out

whether the lines representing the following pairs of linear equations

Intersect at a point, are parallel or coincide: (i)  $7x + 6y = 9$  &  $5x - 4y = -8$

(ii)  $9x + 3y = -12$  &  $18x + 6y = -24$

(iii)  $6x - 3y = -10$  &  $2x - y = -9$

Q.3. Find the value of 'k' for which each of the following systems of equations have infinitely many solutions:  $2x - 3y = 7$  and  $(k + 2)x - (2k + 1)y = 3(2k - 1)$

Q.4. When 3 is added to the denominator and 2 is subtracted from the numerator a fraction becomes  $\frac{1}{4}$ . And, when 6 is added to numerator and the denominator is multiplied by 3, it becomes  $\frac{2}{3}$ . Find the fraction.

Q.5. Show graphically that each one of the following systems of equations has infinitely many solutions:  $2x + 3y = 6$  &  $4x + 6y = 12$

Q.6. Draw the graph of  $x - y + 1 = 0$  and  $3x + 2y - 12 = 0$ . Calculate the area of the triangle bounded by these lines and the x-axis.

Q.7. The age of father is twice the sum of ages of his two children. Ten years hence, the age of father will be three-quarter of the sum of the ages of his children then. Find the present age of father.

Q.8. Find the value of 'K' so that the following system of equations has no solution.

$$(3k+1)x + 3y - 2 = 0 \text{ \& \ } (k^2+1)x + (k-2)y - 5 = 0$$

Q.9. The sum of the two-digits number and the number formed by interchanging its digits is 110. If 10 is subtracted from the first number, the new number is 4 more than 5 times the sum of the digits in the first number. Find the first number.

# SAINIK SCHOOL CHITTORGARH

## SUMMER VACATION HOLIDAY HOMEWORK-2026-27

### INFORMATION

SUBJECT NAME: English

CLASS 8 SECTION: X A,B and C

SUBJECT TEACHER NAME: Rawal Rathore

#### INSTRUCTIONS:

1. The holiday homework will be considered as your English project work.
2. The marks awarded for this will be counted towards Internal -assessment.
3. Project will be done in a file (plastic strip file with A4 sheet may also be used)
4. On page 1: write -English Project Work, name, class, section, school number and house..

#### ENGLISH PROJECT WORK

NAME:

CLASS:

SCHOOL NUMBER:

HOUSE:

SECTION

5. Last page of the project will carry the following certificate

#### CERTIFICATE

This is to certify that I \_\_\_\_\_ OF Class \_\_\_\_\_. Have done the English project work on my own. It is my own original work as per the guidelines provided by \_\_\_\_\_ ( Name of the teacher).

Signature

Name:

### ASSIGNMENT

#### Part A – Chapter Summaries

Write summaries of the following chapters (150–200 words each):

1. **A Triumph of Surgery**
2. **The Thief's Story**
3. **The Midnight Visitor**
4. **A Question of Trust**
5. **Footprints Without Feet**

#### Part B – Letter to the Editor

**Assignment:** Write a letter to the editor of a national daily highlighting the importance of **animal welfare** after reading *A Triumph of Surgery*.

#### Part C – Enquiry Letter

**Assignment:** Write a letter to the Principal of a coaching institute enquiring about **summer courses in English and Science**.

#### Part D – Additional Tasks

Prepare **character sketches** of Tricky, Anil, Ausable, and Griffin.

Revise grammar topics: **tenses**, **reported speech**, and **modals**.

Practice writing at least **two more letters** on different topics (social issues, education, environment).

**Part E – Language Lab Assignment:** Verbs. Modals and Sub Verb Agreement

**Part F –** Read newspaper on daily basis and write 10 new words daily with sentences.

**Note: This work is to be submitted on the very first day once the School restarts after Summer Vacation**