



The International  
School of Bombay

NURTURE • CHALLENGE • SUCCESS

**ACADEMIC SESSION**  
**2025-26**

**SUMMER**  
**ASSIGNMENT**

**CLASS -10**



Dear Children,

It is summer time, I hope you would enjoy your holidays to the best of your capacities.

Spend good time with your family,

Try to do your written work regularly to enhance your writing power.

Pay special attention towards your health and hygiene. Don't Play in the sunshine or on hot places.

**General Instructions:**

All work is to be done in the subject notebook. It should be neat and clean.

Read all the homework carefully before starting of the homework.

Please follow the instructions given in each subject homework.

All the Homework will be marked and assessed, so it is **COMPULSORY**, to do all the subject homework.



1. number of cases of dog bites is on the increase in our city. Make a report on the same and include the following:

- (i) Newspaper Clippings
- (ii) Causes of dog bites
- (iii) Precautions need to be taken by public
- (iv) Actions taken by local government till now

2. Prepare a PORTFOLIO with the following:

- (a) Introduction
- (b) My Strengths
- (c) I need to improve on \_\_\_\_\_
- (d) My achievements
- (e) I have participated in \_\_\_\_\_
- (f) The books I have read \_\_\_\_\_
- (g) The books I wish to read \_\_\_\_\_
- (h) My aim in life

Paste your picture also.

3. Imagine you are Lencho.

Write a diary - entry expressing your feelings after the hailstorm, about why you decided to write a letter to God, your reaction on having received a response from 'God' and your doubt on the employees of the post - office.

4. Robert Frost is said to be a Nature's poet. Read the following poems:

- a. Stopping by the Woods on a Snowy Evening
- b. Mending Wall

Explain the theme of both the poems and the message conveyed by the poet in each poem.



# हिन्दी

1. फणीश्वर नाथ रेणु जी की किस कहानी पर 'तीसरी कसम' फिल्म में आधारित है जानकारी एकत्र करके सचित्र वर्णन कीजिए।
2. फिल्मों के संदर्भ में आपने सुना होगा कि जो बात पहले की फिल्मों में थी वह अब कहाँ ? वर्तमान दौर की फिल्मों और पहले की फिल्मों में क्या समानता और क्या असमानता है? तुलनात्मक वर्णन अपने शब्दों में कीजिए।
3. लोकगीत हमें हमारी संस्कृति से जोड़ते हैं। तीसरी कसम फिल्म में लोकगीत का प्रयोग किया गया है। आपने भी अपने क्षेत्र के प्रचलित व शालीन तीन लोकगीतों को एकत्र करके लिखिए और बताइए कि किस क्षेत्र की वह लोकगीत हैं।
4. आपको फिल्म में जगत के कौन से अभिनेता वह अभिनेत्री सबसे अधिक प्रिय हैं? आपने उनसे क्या सीखा व प्रेरणा प्राप्त की है? सचित्र वर्णन कीजिए।



## Chapter -1 Real numbers .

### M.C.Q

- Which one of the following can't be the square of a natural number?  
(a) 42437    b) 20164    c) 81225    d) 32761
- Without actually performing the long division, state whether the following rational numbers will have a terminating decimal expansion or a non-terminating decimal expansion:  $\frac{23}{8}$ .  
(a) Non-terminating non-repeating decimal  
(b) Non-terminating repeating decimal  
(c) Non-terminating decimal  
(d) Terminating decimal
- Find the HCF of 1848, 3058 and 1331.  
(a) 9    b) 14    c) 13    d) 11
- What is the number in the form of  $4p + 3$  if  $P$  is a whole number?  
(a) Even    b) Odd    c) Even or Odd    d) Multiple of 3
- Find the biggest number which can divide both 324 and 144.  
(a) 18    b) 36    c) 9    d) 21
- Prove that  $5 + 2\sqrt{3}$  is an irrational number .
- The product of two numbers is 20736 and their HCF is 54 . Find their LCM.
- The HCF of two numbers 145 and LCM is 2175 . If one number is 725 . Find the other number.
- Express each of the following as product of primes.  
a. 6435    b) 8085    c) 2184
- Prove that  $\sqrt{2}$  is a irrational number.

## Chapter -2 Polynomials

### M.C.Q

1. The zeroes of  $x^2 - 2x - 8$  are:

- (a) (2,-4)    b) (4,-2)    c) (-2,-2)    d) (-4,-4)

2. What is the quadratic polynomial whose sum and the product of zeroes is  $\sqrt{2}$ ,  $\frac{1}{3}$  respectively?

- (a)  $3x^2 - 3\sqrt{2}x + 1$                       (b)  $3x^2 + 3\sqrt{2}x + 1$   
(c)  $3x^2 + 3\sqrt{2}x - 1$                       (d) None of the above

3. The degree of the polynomial,  $x^4 - x^2 + 2$  is

- (a) 2    b) 4    c) 1    d) 0

4. The zeroes of the quadratic polynomial  $x^2 + 7x + 10$  are

- (a) -4, -3    b) 2,5    c) -2,-5    d) -2,5

5. If the graph of a polynomial intersects the x-axis at three points, then it contains \_\_\_\_ zeroes.

- a) Three    b) Two    c) Four    d) More than three

7. If a and b are the zeros of polynomial  $p(x) = 3x^2 - 5x + 6$ . Find

- a)  $a/b + b/a$     b)  $a^3 + b^3$

8. If  $\alpha$ ,  $\beta$ , &  $\gamma$  are the zeros of the cubic polynomial  $p(x) = 3x^3 - 6x^2 + 5x - 3$ . Find their sum and product.

9. Find a polynomial whose zeros are squares of the polynomial  $3x^2 - 6x - 9$ .

10. Find the quadratic polynomial, Sum and product of whose zeros are 2 & -1 respectively.

11. Write and learn square and square root (1 to 30)

12. Make a project / model on "Mathematics around us".

13. From lab manual

1. To verify that the sum of first n natural numbers is  $n(n+1)/2$ , by graphical method.
2. To solve a quadratic equation ( $ax^2 + bx + c = 0$ ) by method of completing the squares, using cutting, pasting etc.





## **Science Summer Assignment**

### **Instructions for portfolio**

**1. Make a decorative front page of portfolio file with Topic, session and your name mentioned clearly.**

**2. Paste related pictures.**

**3. Use blue and black pen for writing .**

**4. Do the work neatly.**

1) To prepare a brief write up on any concept of the chapter 16 'Management of natural resources' in a portfolio file. (Make a decorative front page of portfolio file with 'Topic 'session and your name mentioned clearly, paste related pictures, use blue and black pen for writing ,Do the work in neatly)

2) Write the following experiments in the Chemistry, Physics, Biology practical files. (except the calculations and result part)

### **Chemistry**

1. A. Finding the pH of the following samples by using pH paper/universal indicator:

- |                                  |                         |
|----------------------------------|-------------------------|
| a) Dilute Hydrochloric Acid      | b) Dilute NaOH solution |
| c) Dilute Ethanoic Acid solution | d) Lemon juice          |
| e) Water                         |                         |

B. Study the properties of acids and bases (HCl & NaOH) on the basis of their reaction with:

- |                               |               |
|-------------------------------|---------------|
| a) Litmus solution (Blue/Red) | b) Zinc metal |
| c) Solid sodium carbonate     |               |

2. Performing and observing the following reactions and classifying them into:

- |                         |                           |
|-------------------------|---------------------------|
| a) Combination reaction | b) Decomposition reaction |
|-------------------------|---------------------------|

- Action of water on quicklime.
- Action of heat on ferrous sulphate crystals.
- Iron nails kept in copper sulphate solution.
- Reaction between sodium sulphate and barium chloride solutions.

3. Observing the action of Zn, Fe, Cu and Al metals on the following salt solutions:

a)  $\text{ZnSO}_4$  (aq)

b)  $\text{FeSO}_4$ (aq)

c)  $\text{CuSO}_4$  (aq)

d)  $\text{Al}_2(\text{SO}_4)_3$  (aq)

Arranging Zn, Fe, Cu and Al (metals) in the decreasing order of reactivity based on the above result.

4. Study of the following properties of acetic acid (ethanoic acid):

a) Odour

b) solubility in water

c) effect on litmus

d) reaction with Sodium Hydrogen Carbonate

5. Study of the comparative cleaning capacity of a sample of soap in soft and hard water.

## Physics

1. Studying the dependence of potential difference (V) across a resistor on the current (I) passing through it and determine its resistance. Also plotting a graph between V and I.

2. Determination of the equivalent resistance of two resistors when connected in series and parallel.

3. Determination of the focal length of: i) Concave mirror ii) Convex lens, by obtaining the image of a distant object.

4. Tracing the path of a ray of light passing through a rectangular glass slab for different angles of incidence. Measure the angle of incidence, angle of refraction, angle of emergence and interpret the result.

5. Tracing the path of the rays of light through a glass prism.

6. Write a detailed note on natural and artificial sources of light.



## **Biology**

1. To Prepare a temporary mount of a leaf peel to show stomata.
2. Experimentally show that carbon dioxide is given out during respiration.
3. Studying (a) binary fission in Amoeba, and (b) budding in yeast and Hydra with the help of prepared slides.
4. Identification of the different parts of an embryo of a dicot seed (Pea, gram, red kidney bean)
5. Write a detail note on modes of Nutrition found in living organisms along with their examples.

# SOCIAL SCIENCE



**A-** Every student must undertake one project on ...

**Topic:** Consumer Awareness OR Social Issues OR Sustainable Development

**B-** Interdisciplinary Project

**Topic:** The Making of a Global World OR Globalisation and Lifelines of Economy

Subject and Chapter No.	Name of the Chapter
History Chapter 3	Making of a Global World
Geography Chapter 7	Lifelines of National Economy
Economics Chapter 4	Globalisation and the Indian Economy

**Guidelines:**

- It involves combining 2 or more disciplines into one activity-more coherent and integrated. The generally recognized disciplines are Economics, History, Geography, Political Science.

**C- Answer the following questions in Economics notebook:-**

1. Define the term National Income?

2. Define GDP.





3.What is the main criterion used by the World Bank in classifying different countries?

4.Why is the total income of countries not used to make comparisons between them?

5.Why is sustainable development essential?

6.“What may be development for one may not be development for the other.” Explain with a suitable example.

7.‘Conflicting goals can also be developmental goals’. Elaborate with examples.

8.“Money cannot buy all the goods and services that one needs to live well” .Do you agree with this statement? Justify your answer with any three suitable arguments.

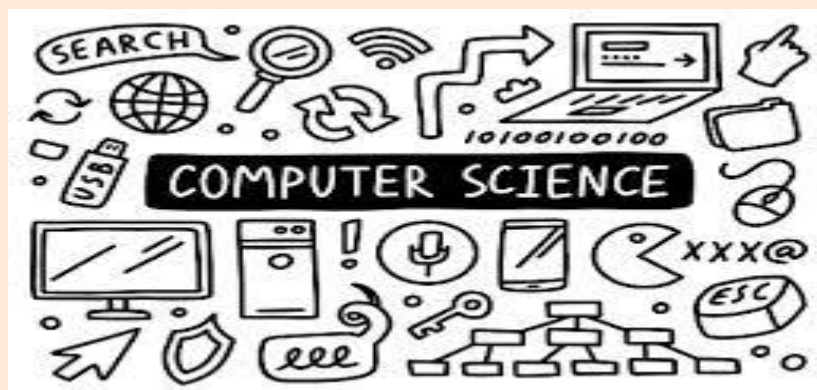
9.Explain with examples that there are other important development goals also besides income.

10.Give reasons why state of Punjab with a very high per capita income has a low literacy rate.

**D-Revise the following chapters for PA I**

Geography Ch1- Resources and Development

Economics Ch1- Development



### Part A: Theory-Based Questions

Answer the following questions in your own words. Write them neatly in your computer notebook.

1. "Verbal communication and non-verbal communication are interdependent on each other". Considering this statement describe the verbal and non-verbal communication in the context of a class-room presentation by an educator.

---

### Part B: Practical Assignment (Digital Documentation)

2. Imagine your school is initiating a "GO GREEN" campaign to raise public awareness of the three 'R's (Reduce, Reuse and Recycle). Create a beautiful poster by using relevant pictures and text to spread the message.
3. Create a document of 2-3 pages on 'Historical Monuments of India'. Add graphics to the document by using pictures. Also, use different shapes to make the document attractive.

---

### Part C: Research Work (Creative Project)

Choose **any one** of the following and present it as a short report (500–700 words) with images and diagrams if needed:

1. **History of Computers** – From First Generation to Modern Day
2. **Artificial Intelligence** – What it is and How it Impacts our Lives
3. **Cybercrime & Hacking** – Common types and Prevention Methods



#### 4. Careers in Computer Science – Scope, Fields, and Skills Required

---

##### Submission Date:

To be submitted on the **first day of school after summer vacation.**

