

PM SHRI Kendriya Vidyalaya  
Kurnool

**CLASS X**

**Summer Vacation**

**Holiday Home Work(2026-27)**

## Class 10 (HINDI)

### 1. निबंध लेखन

“पर्यावरण संरक्षण: आज की आवश्यकता” (200–250 शब्द)

### 2. पत्र (औपचारिक)

सड़क सुरक्षा के प्रति जागरूकता फैलाने हेतु संपादक को पत्र लिखिए।

### 3. संवाद लेखन

“करियर चुनने” पर माता-पिता और बच्चे के बीच संवाद लिखिए।

### 4. लेख/आलेख

“सोशल मीडिया का प्रभाव” विषय पर लेख लिखिए।

## SANSKRIT HOLIDAY HOMEWORK

CLASS – 10<sup>TH</sup>

- (1) अभ्यासपुस्तके विद्यमान सन्धिनाम् पञ्च पञ्च उदाहरणानि लिखित्वा आनयन्तु ।
- (2) समासे विद्यमान विग्रहवाक्य एवं समासः सर्वम् लिखित्वा आनयन्तु ।

## English Holiday Homework Class 10

1. Complete these questions in your notebook.

### **A letter to God**

- a. How do you think the postmaster felt when he received Lencho's second letter? What do you think he did?
- b. "What faith! I wish I had the faith of the man who wrote this letter. Starting up a correspondence with God."
  - i. Who is the speaker of the above lines?
  - ii. Why did the man write the letter to god?
  - iii. "Starting up a correspondence with god." What does it tell you about man's character?
  - iv. Write a synonym and an antonym for the word "Correspondence."

### **A Dust of Snow**

- a. What is the message of the poem?
- b. What do you understand by dust of snow?
- c. What mood of the poem is reflected in the poem?

### **Fire and Ice**

- a. Write the sum and substance of the poem Fire and Ice?
- b. How does the poet suggest that both fire and ice are capable of destruction?
- c. What deeper understanding of human nature is reflected in this extract?
- d. Discuss how the poet's personal insight adds weight to the poem's message.

### **A Triumph of Surgery**

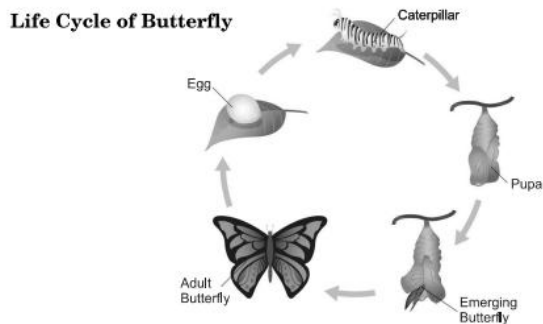
- a. What treatment was given to Tricky by Dr. Herriot? Explain.
- b. Do you think parents like Mrs. Pumphrey exist? If yes, is it s good thing to pamper children? Why or Why not?
- c. Write a diary entry as Mr. Herriot on the chapter "Triumph of Surgery."

### **A Tiger in the Zoo**

- a. Love for freedom is the natural instinct of every living being. Comment.
- b. Is it right to confide wild animals into cages? Why or Why not?

2. Complete the question answers of the Chapter Nelson Mandela including comprehension check.

3. The visual given shows the life cycle of a butterfly. Study the information carefully and then summarise it in the form of an analytical paragraph. Make comparisons and draw conclusions wherever applicable. [CBSE 2024]

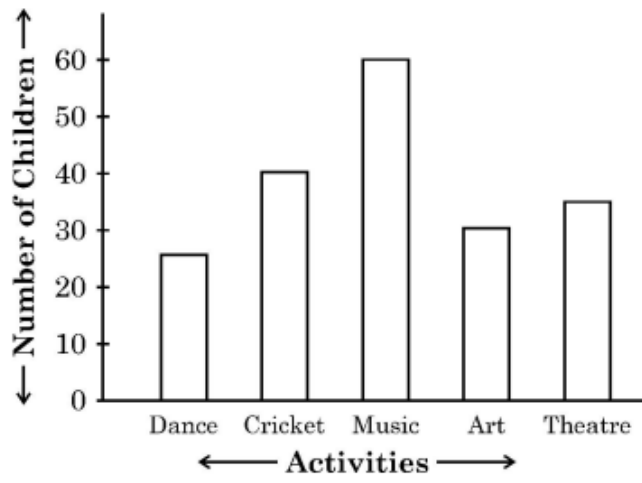


Q10. The following data shows global literacy rates of different age groups and gender in a particular year. Write an analytical paragraph describing and analyzing the given data. [CBSE 2024]

Global literacy rate %	People of different age-groups			
	12-15 years	15-24 years	25-64 years	65 years and older
Men	88	90	88	80
Women	80	88	79	75

Q11. A survey was conducted in New Delhi in over twenty schools about the different activities that interest the children in the age group

of 13 to 15 years. Write an analytical paragraph in about 100 words analyzing the following information [CBSE 2023]



PMSHRI KENDRIYAVIDYALAYA, KURNOOL-518002.

CLASS: X

SUBJECT: MATHEMATICS.

**\* SUMMER HOLIDAYS HOMEWORK \***

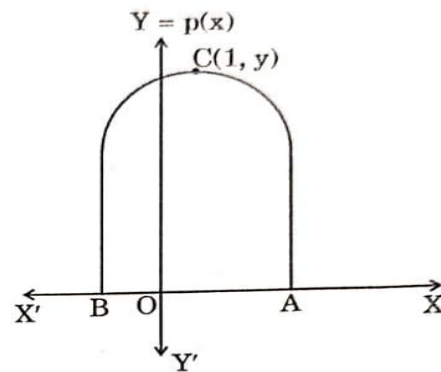
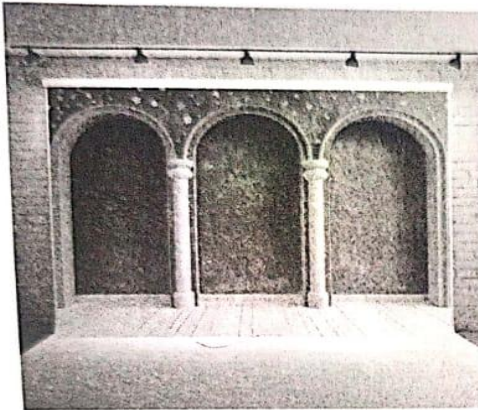
- 1) If  $\sqrt{6}$  is an irrational number then prove that  $(\sqrt{2} + \sqrt{3})^2$  is Irrational number.
- 2) Check whether  $4^n$  can end with the digit 0 for any natural Number n.
- 3) Three alarm clocks ring their alarms at regular intervals of 20 Min, 25 min and 30 min. respectively. If they first beep together At 12 noon, at what time will they beep again for the first Time?
- 4) A dining hall has a length of 8.25m, breadth of 6.75m and Height of 4.50m. What is the length of the longest unmarked ruler that can exactly measure the three dimensions of the hall? Show your steps and give valid reasons.
- 5) If HCF of 144 and 180 is expressed in the form  $13m - 16$ . Find the value of m.
- 6) Find a quadratic polynomial whose zeroes are  $5 - 3\sqrt{2}$  and  $5 + 3\sqrt{2}$ .
- 7) Verify that 3, -1 and  $\frac{1}{3}$  are the zeroes of the cubic polynomial  $p(x) = 3x^3 - 5x^2 - 11x - 3$ , and then verify the relationship between the zeroes and the coefficients.
- 8) Draw the graph of  $y = x^2 + x - 6$ . What is the name of the shape obtained in the graph. Give the zeroes of the Polynomial from the graph.
- 9) If  $\alpha$  and  $\beta$  are the zeroes of the polynomial  $3x^2 + 5x - 6$  then Find the value of the following.  
(i)  $\alpha + \beta - \alpha\beta$     (ii)  $\alpha^2 + \beta^2$     (iii)  $\alpha^3 + \beta^3$     (iv)  $\frac{\alpha}{\beta} + \frac{\beta}{\alpha}$

(10)



### Case Study - 2

37. During a theatre drama, a backdrop of building arches was used. The shape of the curve shown below can be represented by the polynomial  $p(x) = -x^2 + 2x + 8$ , where  $x$  is the length (in feet) on stage level.



Based on the figure given above, answer the following questions :

- (i) Determine the height of the arch. 1
- (ii) (a) Find zeroes of the polynomial  $p(x)$ . Which points on the graph represent the zeroes ? 2
- OR**
- (ii) (b) Find the span of the arch on the stage floor. 2
- (iii) Write the coordinates of the point of intersection of the above curve with the y-axis. 1

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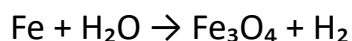
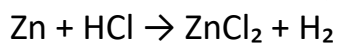
## Class 10 Science Holiday Homework

### Part A: Subject-wise Written Work

#### **Chemistry**

##### 4. Chemical Reactions & Equations

Balance the following (any 15):



Identify reaction types:

Combination

Decomposition

Displacement

Redox

##### 2. Acids, Bases & Salts

Define: Acid, Base, Alkali

Write Ph range of:

Lemon juice

Soap

Milk

Explain:

Importance of Ph in daily life

Tooth decay & Ph

##### 3. Metals & Non-metals

Differences (table format)

Reactivity series (learn & write)

Ionic compounds properties

##### 4. Carbon & Its Compounds

Draw structures:

Methane, Ethane, Ethene, Ethanol

Write chemical properties of ethanol & ethanoic acid

#### **Physics**

##### 1. Light (Reflection & Refraction)

Draw ray diagrams:

Concave mirror

Convex lens

Solve 10 numericals

##### 2. Human Eye & Colourful World

Defects:

Myopia

Hypermetropia

Explain:

Scattering of light

Why sky appears blue

3. Electricity

Define:

Current, Voltage, Resistance

Derive Ohm's Law

Solve 10 numericals

4. Magnetic Effects of Electric Current

Draw magnetic field lines

Explain:

Electric motor

Electric generator

## **Biology**

1. Life Processes

Diagrams:

Heart

Nephron

Explain:

Nutrition

Respiration

2. Control & Coordination

Nervous vs Hormonal system

Functions of hormones

3. Reproduction

Asexual vs Sexual reproduction

Human reproductive system diagram

4. Heredity & Evolution

Mendel experiments

Define:

Gene

Trait

Evolution

Part B: Activity / Project Work

Choose ONE Project:

1. Water Purification

Methods: Filtration, Boiling, Chlorination

Draw diagrams

2. Renewable Energy

Solar, Wind, Hydro

Advantages & disadvantages

### 3. pH in Everyday Life

Test household substances

Record observations

### 4. Working Model

Electric circuit / Heart / DNA

### Part C: Practical Work

Write any 5 experiments:

Aim

Materials

Procedure

Observation

Conclusion

### Part D: Case Study Questions

Solve:

5 questions (Chemistry)

5 questions (Physics)

5 questions (Biology)

### Part E: Revision Work

Prepare short notes of all chapters

Make formula chart (Physics)

Make flashcards (definitions)

### Part F: Creative Work

Make a Science Scrapbook

Include diagrams, discoveries, scientists

Write paragraph:

“Role of Science in Daily Life”

## CLASS X

### Social Science Home Work

#### Theme: “India and the Contemporary World”

##### 1. Reading Activity

Read:

1 chapter from History (Nationalism in India)

Maintain a Reading Log.

Summary (1 page).

##### 2. Writing Activity

A Prepare a project on Consumer Rights by comparing prices of vegetables and fruits and many other items in a local market and a mall. Mention about Importance, rights, awareness of consumer rights. Include a price table, observations, and conclusion.

Submit neatly in a project file.

##### 3. Creative Expression

Prepare a Project File on any ONE topic:

“Nationalism in India”

“Sustainable Development”

“Sectors of Indian Economy”

OR

EBSB Ek Bharat Shreshtha Bharat (Punjab or Andhra Pradesh)

##### 4. Interactive Learning

Interview any adult on:

“Changes in Economy / Jobs over time”

Write a report (1–2 pages)

**PMSHRI KENDRIYA VIDYALAYA KURNOOL**

**CLASS XTH : ARTIFICIAL INTELLIGENCE ,CODE: 417**

**HOLIDAYS HOMEWORK**

**SECTION A**

*Direction: Read the Assertion (A) and Reason (R) carefully. Choose the correct option:*

- (a) Both A and R are true, and R is the correct explanation of A.
- (b) Both A and R are true, but R is NOT the correct explanation of A.
- (c) A is true but R is false.
- (d) A is false but R is true.

**Q1.**

**Assertion (A):** Problem Scoping is the most critical step in the AI Project Cycle.

**Reason (R):** It defines the aim and objective of the project before data is collected or a model is built.

Answer: \_\_\_\_\_

**Q2.**

**Assertion (A):** An AI model trained on biased data will always produce fair results.

**Reason (R):** AI systems learn patterns from their training data, including any biases present in it.

Answer: \_\_\_\_\_

**Q3.**

**Assertion (A):** Ethical Frameworks in AI help prevent bias and protect privacy.

**Reason (R):** Ethical frameworks are only useful for large tech companies, not for schools or hospitals.

Answer: \_\_\_\_\_

**Q4.**

**Assertion (A):** Transparency is a pillar of AI Ethics.

**Reason (R):** Transparent AI ensures that the logic behind AI decisions can be understood by users and stakeholders.

Answer: \_\_\_\_\_

**Q5.**

**Assertion (A):** The AI Project Cycle is a one-time linear process.

**Reason (R):** It is called a 'cycle' because each stage feeds back into previous stages, making it iterative.

Answer: \_\_\_\_\_

**Q6.**

**Assertion (A):** Non-verbal communication includes facial expressions, gestures, and body language.

**Reason (R):** Words are the only effective means of conveying meaning in professional settings.

Answer: \_\_\_\_\_

**Q7.**

**Assertion (A):** A Virtue-Based ethical framework encourages AI decision-makers to act with honesty and integrity.

**Reason (R):** Virtue ethics focuses on the moral character of the decision-maker rather than fixed rules.

Answer: \_\_\_\_\_

**Q8.**

**Assertion (A):** Active listening is an important communication skill.

**Reason (R):** Active listening means only hearing the speaker without understanding or responding to them.

Answer: \_\_\_\_\_

**Q9.**

**Assertion (A):** Bioethics as an ethical framework can be applied to AI in healthcare.

**Reason (R):** Bioethics addresses patient privacy, data security, and the responsible use of AI in medical decisions.

Answer: \_\_\_\_\_

**Q10.**

**Assertion (A):** Data Acquisition involves collecting data from reliable and authentic sources.

**Reason (R):** Poor quality data leads to poor AI model performance, making data collection a critical step.

Answer: \_\_\_\_\_

## **SECTION B**

*Read each case carefully and answer the questions that follow:*

### **CASE 1: AgroSmart — Farming with AI**

A group of Class X students decided to build an AI solution to help farmers predict crop diseases. They started by interviewing farmers to understand the problem, then collected images of diseased and healthy crops. They cleaned the data, chose a computer vision model, trained it, and tested it on new images before presenting it at a school exhibition.

**Q1.** Identify the stage of the AI Project Cycle in which the students interviewed farmers. Justify your answer. (2 marks)

Answer:

\_\_\_\_\_

**Q2.** After collecting crop images, the students created bar graphs and pie charts to understand the data. Name this stage. What is its purpose? (2 marks)

Answer:

\_\_\_\_\_

### **CASE 2: The School Debate**

Priya and Rajan are representing their school in an inter-school debate. Their teacher advises: 'Listen actively when the opponent speaks, maintain eye contact with the judges, use clear and confident verbal communication, and back up your points with evidence.' Rajan, however, looks at the floor, speaks very fast, and does not listen when Priya is speaking.

**Q3.** List any TWO barriers to effective communication that Rajan demonstrates. Suggest how he can improve. (2 marks)

Answer:

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**SECTION C**

*Answer the following in 3-5 sentences each. Use examples from real life wherever possible:*

**Q1.** List and briefly explain ALL steps of the AI Project Cycle in sequence.

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**Q2.** You are part of a team building an AI chatbot for mental health support. Identify any THREE ethical concerns and suggest how you would address them using an ethical framework. (3 marks)

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**Q3.** Your school wants to build an AI system to predict students' exam scores. Describe how you would complete the AI Project Cycle for this idea — from Problem Scoping to Deployment. (3 marks)

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**Q4.** What are barriers to effective communication? Name FOUR barriers and suggest one way to overcome each. (3 marks)

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**Q5.** Explain the difference between verbal and non-verbal communication. Give TWO examples of each. (3 marks)

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