



BIRLA PUBLIC SCHOOL, PILANI

SUMMER VACATION HOMEWORK-2025-26

CLASS-10

SUBJECT- ENGLISH

1. Visit your neighbour in the vacation. Get to know the electricity bill of that neighbour. Then, have an idea about the electric appliances used by your neighbour and make a list of it. Keep the above data safe and then do the same with your own house and keep the data safe. Then, prepare a **comparative analysis** of the two data's that you have collected and prepare a **report** for the same.
2. Write a **story** highlighting the **message** that was conveyed in the story "Two Gentlemen of Verona."
3. Write a **travelogue** of yours of the **Summer Vacation** that you have undergone.

विषय - हिंदी

- 1- "सूरदास के पद पाठ" के अतिरिक्त सूरदास के कोई पांच पद लिखिए ।
- 2- "राम लक्ष्मण परशुराम संवाद" को ही गद्य संवाद की तरह लिखिए ।
- 3- आसाम और राजस्थान के स्वतंत्रता सैनानियों के व्यक्तित्व और कृतित्व पर "कला एकीकृत परियोजना" (एक प्रोजेक्ट) चार्ट पर बनाइए ।

विषय - संस्कृत

“अभ्यासवान भव” “द्वितीयः भागः” के आधार पर -

1- पत्रलेखनम् -

- (i) अध्ययनं प्रति मातरं समाश्वा सयि तु पुत्र्या लिखितं पत्रं मञ्जूषायां प्रदत्तपदैः पूरयित्वा पुनः लिखत ।
- (ii) जलसंरक्षणस्य महत्त्वं वर्णयन्तः मित्रं प्रति लिखितं पत्रं मञ्जूषायां प्रदत्तपदैः पूरयित्वा पुनः लिखत ।
- (iii) विज्ञानविषयं प्राप्तुं प्राधानाचार्यं प्रति आवेदनपत्रम् ।

2- चित्रवर्णनम् -

चित्र-संख्या - 2, 3, 6 के आधार पर प्रत्येक चित्र आधारित 5-5 वाक्य संस्कृत में बनाइए ।

3- अनुच्छेदलेखनम् -

- (i) स्वच्छता (ii) संस्कृतशिक्षणम् (iii) आतङ्कवादः (iv) अस्माकं विद्यालयः

4- कथापूर्तिः - कथा संख्या - 1, 3, 4 (रिक्तस्थान पूर्ति करके पूर्ण कथा लिखिए)

5- संवादलेखनम् - संवाद संख्या - 2, 5, 6 (रिक्तस्थान पूर्ति करके पूर्ण संवाद लिखिए)

नोट - कथापूर्ति एवं संवादपूर्ति - कक्षा 9 'मणिका' (संस्कृत - अभ्यास पुस्तिका)

प्रथमो भागः के

“नवमः अभ्यासः” के भाग ‘घ’ एवं भाग ‘ङ’ की सहायता से लिखिए ।

6- रामः, फलम्, लता, किम् शब्द (तीनों लिंगों में) के शब्द रूप कंठस्थ करें ।

7- पठ, भू और गम् धातु के पांचों लकारों के रूप स्मरण करें ।

SUBJECT-

FRENCH

Écrivez une lettre en 80 mots:

- (a) Écrivez une lettre à votre ami (e) d'environ 80 mots lui décrivant un endroit/lieu que vous avez visité pendant les vacances.
- (b) Vous étudiez à l'université de Sorbonne en France. Écrivez une lettre à votre ami (e) indien(ne) en décrivant le système éducatif en France.
- (c) Vous avez trouvé un emploi de votre choix. Rédigez une lettre à votre cousin(e) ce que vous avez fait pour le trouver et combien cela vous plaît.
- (d) À votre cousin(e) décrivant le système politique en Inde.
- (e) À votre ami(e) lui disant comment être en bonne santé.

Subject - Mathematics

Project No.1. You , being an Architect, design a “**FLOOR PLAN**” of 3BHK on a chart paper for the area of land 1000 sq feet and :

1. Calculate the surface areas of the walls and ceilings to be painted.
2. Find the cost of ceramic tiles to cover the floor @ Rs 110 per square feet
3. Find the cost of painting it @ Rs 150/sq feet.
4. Outline and color the **FLOOR PLAN** (in different colors) (you may paste the print of floor plan)

Project No.2. Prepare a budget of at least one month of your house hold expenses (including water bill, electricity bill, Phone bills, House rent and all other house hold commodities expenses). Budget presentation may be in the form of PPT and Tables / Graph etc.

Project No.3. Prepare a Mind map/Concept Map/ Summary of first three units including illustrative examples and graphical representation.

1. Real Numbers 2. Polynomials 3. Pair of Linear Equations in Two variables, from your Mathematics Text Book.

Project No. 4 : Make a presentation and scrap book on the mathematics involved behind the seven wonders of the earth (monuments). Explain how Geometry could be used to explain about structure of these monuments.

Project No 5 : Explore the history of Pi (π)

SUBJECT- PHYSICS

Instructions:

1. Summer assignment is part of internal assessment so complete the assignment and submit just after the summer break.
2. All questions are compulsory.
3. Do the assignment as per the instructions given in each question.
4. Assignments are based on project and art integration and is an integral part of assessment.

1. Project Title: "Illuminating Heritage: A Journey Through Light"

Objective:

To create an art-integrated project that explores the concept of light and its significance in the cultural heritage of India (pick any state preferably do comparative study of two states i.e Rajasthan and any state)

Project Components:

1. *Research and Content*:

- Study the concept of light in physics and its applications.
- Explore the cultural significance of light in Rajasthan and Assam, including festivals, traditions, and architectural marvels.
- Collect information on the unique lighting styles and techniques used in both states.

2. Presentation of project may be in the form of A) *Artwork*:

- Create a mixed-media artwork (painting, collage, or digital art) that represents the theme of light in India (Rajasthan and state).
- Incorporate traditional motifs, patterns, and colors from both states.
- Use lighting effects, such as glow-in-the-dark paint or LED lights, to enhance the artwork.

B. *Model or Diorama*:

- Design a 3D model or diorama of a famous monument or festival from Rajasthan or state highlighting the role of light in its architecture or celebration.
- Use materials like clay, cardboard, or LED lights to create the model.

C *Presentation*:

- Prepare a presentation or display board that shows your artwork, model, and research findings. (Presentation in the form of display board or scrap book)
- Include captions, quotes, or poems that highlight the significance of light in both states.

Ideas for Artwork:

- Depict the golden light of sunrise over the sand dunes of Rajasthan's Thar Desert.
- Illustrate the vibrant colors and lighting effects used in Assam's Bihu festival.
- Create a mixed-media piece that combines traditional Rajasthani miniature painting with modern lighting effects.
- Design a stained-glass window-inspired artwork that represents the intricate patterns and colors of Assam's traditional architecture.

Ideas for Model or Diorama:

- Create a model of the Hawa Mahal in Jaipur, highlighting its intricate architecture and the way light filters through its latticework.
- Design a diorama of the Kamakhya Temple in Guwahati, showcasing its unique architecture and the significance of light in its rituals.
- Build a model of a traditional Rajasthani or Assamese house, highlighting the use of natural light and ventilation.

Tips and Variations:

- Incorporate local materials and traditional crafts from Rajasthan and Assam into your project.
 - Use technology, such as 3D printing or LED lights, to enhance your artwork or model.
 - Collaborate with classmates or friends to create a larger, more complex project.
 - Consider creating a short video or animation that shows your project and its themes.
- By following these ideas and guidelines, you'll create a unique and engaging art-integrated project that shows your understanding of light and its cultural significance in Rajasthan and state.

2. On A4 size paper draw the ray diagram of six cases of concave mirror and two cases of convex mirror along with the nature size and position of image. Also draw ray diagram and a table of six

cases of convex lens and two cases of concave lens to show the nature size and position of the image.

3. Do the following questions in the physics notebook:

1. Draw a ray diagram to show the path of the reflected ray in each of the following cases.

A ray of light incident on a convex mirror:

(i) strikes at its pole making an angle from the principal axis.

(ii) is directed towards its principal focus.

(iii) is parallel to its principal axis.

2. The linear magnification produced by a spherical mirror is $+1/3$. Analyzing this value, state the

(i) type of mirror and (ii) position of the object with respect to the pole of the mirror. Draw a ray diagram to justify your answer.

3. A spherical mirror produces a magnification of -1 on a screen placed at a distance of 50cm from the mirror.

(i) Write the type of the mirror.

(ii) Find the distance of the image from the object.

(iii) What is the focal length of the mirror?

(iv) Draw the ray diagram to show the image formation in this case.

4. Suppose you want to observe an erect image of a candle flame using a concave mirror of focal length 20cm. State the range of distance of the candle flame from the mirror. List two other characteristics of the observed image. Draw a ray diagram to show the formation of image in this case.

SUBJECT- CHEMISTRY

1. Chart Making: Different Types of Chemical Reactions

- Objective: Create a detailed chart that explains different types of chemical reactions with their examples.

- Instructions:

- Title: "Types of Chemical Reactions"

- Sections:

- Combination Reaction: Define and provide examples.

- Decomposition Reaction: Define and provide examples.

- Displacement Reaction: Define and provide examples.

- Double Displacement Reaction: Define and provide examples.

- Redox Reaction: Define and provide examples.

- Illustrations: Include diagrams or pictures to visually represent each type of reaction.

- Materials: Use a large sheet of paper or a poster board, markers, colored pencils, and any other decorative materials.

2. Physical Nature of Acids and Bases

- Objective: Investigate and describe the physical nature of acids and bases.

- Instructions:

- Title: "Physical Nature of Acids and Bases"

- Sections:

- Definition: Define acids and bases.
- Properties: List the physical properties of acids (e.g., taste, pH, conductivity) and bases (e.g., taste, pH, conductivity).
- Examples: Provide at least three examples of acids and bases.
- Illustrations: Include diagrams or pictures to visually represent acids and bases.
- Materials: Use a large sheet of paper or a poster board, markers, colored pencils, and any other decorative materials.

3. 50 Chemical Formulas of Compounds

- Objective: List and memorize the chemical formulas of 50 common compounds.

Submission Guidelines

- ***Format: All work should be neatly presented and well-organized.***
- ***Deadline: Submit your completed assignment by the first day of the new school term.***
- ***Evaluation: Your work will be evaluated based on creativity, accuracy, completeness, and presentation.***

SUBJECT– BIOLOGY

Note: All the assignments carry marks for internal assessment

1. Make a collage of images of animals, birds and plant species of Rajasthan. Include images of national park and sanctuaries of Rajasthan in it. (Art integrated project)
2. Read Ch- Our Environment and write 20 short answer questions and their answers.

3. Plant a sapling at your home on World Environment day or any other suitable day. Water it regularly and take images of its regular growth. Make a collage of its images(hard copy)
OR

Prepare a 10days diet chart of everyday meal mentioning the different sources of all nutrients (Carbohydrates, Fats, Proteins, Vitamins and Minerals)
Submit the scrap book when you return from summer vacation.

4. Select an appropriate diagram from the chapters in your syllabus and draw the well labelled diagram on the chart paper.
OR

Make a working model of any one of the four life processes (nutrition, respiration, transportation, excretion) or a non-working model of any life process with the help of scrap material available at home (scrap material can be moulded and coloured as required).

You must bring the model to school with you to school after summer vacations.

OR

Make an animated video of 2 minutes using any video maker to show the characteristics and holozoic process of nutrition in amoeba and send to your teacher's official mail address. (Video should be interesting, smooth accessible to play with any regular video playing software). You have to use at least 20 frames, beautiful colours and background effects to make your video smooth). A voice over is also required to explain the process in detail in the video.

SUBJECT: SOCIAL SCIENCE

General Instructions:

1. **Cover page**- Displaying the topic.
2. **Acknowledgement** – Thanking the people or institution that has helped you in completion of your project.
3. **Certificate**- Mentioning your name and the name of teacher under whose supervision you have completed your work.
4. **Index**- Giving the list of contents with page numbers.
5. **Introduction**- Giving the purpose and importance of a study.
6. **Chapters**- Give a title to each chapter along with details, pictures and newspaper cuttings.
7. **Conclusion**- What do you learn from your study?
8. **Bibliography**- Showing the sources from where you have gathered information.
Present the following in your project report:
 - Data/Statistical Analysis/Map work
 - Analysis/Explanation and interpretation
 - Bibliography
9. The students must submit original work.
10. Project Report should be handwritten only.
11. Eco-friendly materials can be used by students.
12. Students can use primary as well as secondary sources for the research work.

QUESTION-1

- **Every student must compulsorily undertake any one project on the following topics:**

1. Consumer Awareness

The students must write about following key matter:

- a. **Meaning of Consumer Awareness**
- b. **Forms of Consumer Exploitation / Malpractices**
- c. **Factors causing exploitation of the Consumers**
- d. **Enactment of COPRA 1986 and its benefits**
- e. **Various Consumer Rights**
- f. **Role of WTO in protection of Consumers**
- g. **Consumer Protection Measures**

OR

2. Social Issues

Prepare a project on any three of the following social evils still prevailing in our society. Social Issues; highlighting the reasons, effects and suggest solutions to get them eliminated from our country.

1. **Poverty**
2. **Illiteracy**
3. **Corruption**
4. **Gender Inequality**
5. **Inflation, hoarding and panic buying during pandemic crisis**
6. **Domestic violence against women and child abuse.**

The students must write about following key matter:

- a. **Social issues in Indian Society**
- b. **Reforms initiated to combat the social issues**
- c. **Role of Popular leaders and movements.**

OR

3. Sustainable Development

The students must write about following key matter:

- a. **Need of development.**
- b. **Importance of development**
- c. **Policies initiated to adopt measures for Sustainable Growth.**

QUESTION-2

GEOGRAPHY (Outline Political Map of India)

Chapter 1: Resources and Development (Identification only)

- a. Major soil Types

Chapter 3: Water Resources (Locating and Labeling)

Dams:

Salal, Bhakra Nangal, Tehri, Rana Pratap Sagar, Sardar Sarovar, Hirakud, Nagarjuna Sagar, Tungabhadra

Major area of rice and wheat Largest /Major producer state of: -

Sugarcane, Tea, Coffee, Rubber, Cotton, Jute

Indian National Congress Sessions: -

Calcutta (Sept.1920), Nagpur (December 1920), Madras (1927), Lahore (1929)

Important Centers of Indian National Movement

Champanan, Kheda, Ahmedabad, Chauri Chaura, Dandi, Amritsar

Software Technology Parks: -

Noida, Gandhinagar, Mumbai, Pune, Hyderabad, Bengaluru, Chennai, Thiruvananthapuram.

Power plants: -

Thermal –Namrup, Ramagundam, Singrauli

Nuclear –Narora, Tarapur, Kakrapar, Kalpakkam

Major Ports and International Airport:-

Ports-Kandla, Mumbai, Marmagao, New Mangalore, Kochi, Tuticorin, Chennai, Vishakhapatnam, Paradip, Haldia

Airports-Raja Sansi, Indira Gandhi, Chhatrapati Shivaji, Meenam Bakkam, Netaji Subhash Chandra Bose, Rajiv Gandhi

Iron Ore mines: -

Mayurbhanj, Bellary, Durg, Kudremukh, Bailadila, Coal mines- Raniganj, Bokaro, Talcher, Neyveli,

Oil Fields: -

- a. Digboi, Naharkatia, Mumbai High, Bassien, Kalol, Ankeleshwar)

NOTE:-Kindly submit the project and maps in spiral or hard bound file after summer vacations.

SUBJECT – AI

Section – A

Solve the following questions in your notebook.

1. Assertion: Ethics provide guidance in distinguishing right from wrong.

Reasoning: Ethics consist of a set of values and morals that aid individuals in making moral judgments and decisions.

A) Both Assertion and Reasoning are true, and Reasoning is the correct explanation of the Assertion.

B) Assertion is true, but Reasoning is false.

C) Both Assertion and Reasoning are true, but Reasoning is not the correct explanation of the Assertion.

D) Assertion is false, but Reasoning is true.

2. Assertion: Value-based frameworks in ethics provide guidance by focusing on fundamental ethical principles and values.

Reasoning: These frameworks reflect different moral philosophies guiding ethical reasoning and are concerned with assessing the moral worth of actions.

A) Both Assertion and Reasoning are true, and Reasoning is the correct explanation of the Assertion.

B) Assertion is true, but Reasoning is false.

C) Both Assertion and Reasoning are true, but Reasoning is not the correct explanation of the Assertion.

D) Assertion is false, but Reasoning is true.

Reflection Time:

1. Outline the main steps in the AI Project Cycle briefly.

2. What roles does computer vision play in agricultural monitoring systems?

3. Mention the factors which knowingly or unknowingly influence our decision-making.

4. What is the necessity for Ethical Frameworks in AI development?

5. Mention the key characteristics of sector-based frameworks.

6. What do you mean by Bioethics?

7. What is Natural Language Processing? Explain any two real-life applications of NLP.

8. How do value-based frameworks contribute to ethical decision-making by emphasizing fundamental principles and values?

Case-Based Questions

1. Case Scenario:

In a corporate setting, a multinational company is facing scrutiny over its environmental practices, particularly regarding the disposal of industrial waste. The company has prioritized profit maximization and cost-cutting measures, leading to practices that result in environmental harm and negative impacts on local communities. As public awareness and concern about environmental sustainability grows, stakeholders, including investors, customers, and advocacy groups, are calling for the company to adopt more responsible and sustainable business practices.

Question:

Drawing from the case presented, analyze the ethical considerations surrounding the company's environmental practices through the lens of value-based frameworks in ethics.

2. Case Scenario:

In a rural farming community, a group of small-scale farmers is faced with a dilemma regarding the use of pesticides on their crops. The farmers have traditionally relied on chemical pesticides to control pests and maximize crop yields. However, concerns have been raised about the potential environmental and health impacts of pesticide use, including soil contamination, water pollution, and adverse effects on human health. Additionally, neighboring communities and environmental advocacy groups have expressed opposition to the widespread use of pesticides, citing ecological damage and risks to biodiversity.

Question:

Using the case provided, examine the ethical considerations surrounding pesticide use in the agricultural sector, applying ethical frameworks to analyze the competing interests and values at stake.

Section – B

Make a colourful chart on any AI / Ciber Safety related topic.

(Suggestions: - AI Project Cycle, SD Goals, Neural Networks, Tree Structure of AI Modelling, Ciber Safety, Cyber Security, Real life AI Applications)

NOTE:- STUDENTS MUST SUBMIT SUMMER VACATION HOMEWORK TO ALL THE SUBJECT TEACHERS SEPARATELY AFTER VACATIONS.

LIBRARY (MIDDLE SECTION)**CLASS: IX-X****SUGGESTED BOOKS FOR READING IN SUMMER VACATION**

S. No.	Title of Book	Author's Name
1	The Power of Subconscious Mind	Joseph Murphy
2	Paths of Glory	Jeffrey Archer
3	A Storm of Swords- Blood and Gold	George R. R. Martin
4	The Ship of Adventure	Enid Blyton
5	Malgudi Schooldays	R. K. Narayan
6	A Star in Space- Sunita Williams	Ravinda Anantharaman
7	Impatient Optimist Bill Gates in his own words	Bill Gates
8	The Monk Who Sold His Ferrari	Robin Sharma
9	The Day I Stopped Drinking Milk	Sudha Murty
10	Left Brain, Right Stuff	Phil Rosenzweig
11	Antony and Cleopatra	William Shakespeare
12	Geronimo Stilton- The Stinky Cheese Vacation	Elisabetta Maria Dami
13	Goosebumps- The Ghost Next Door	R. L. Stine
14	Tenali Raman	Kavitha Mandana
15	Tamas	Bhisham Sahni
16	Setting of A Cruel Sun	Alan Gibbons
17	Godan	Premchand
18	Infinity- The Quest of Think the Unthinkable	Brian Clegg
19	Making India Awesome	Chetan Bhagat
20	The Fever Code	James Dashner
21	How to Get Ideas	Jack Foster
22	Kya Bhulu Kya Yad Karu (Hindi)	Harivansh Rai Bacchan
23	The Adventures of Sherlock Holmes	Arthur Conan Doyle
24	Sri Krishan Kumarji Birla Bahumukhi Pratibha ke Dhani (Hindi)	Parshuram Sudhakar
25	Gora	Rabindranath Tagore