



DAV PUBLIC SCHOOL TTP TANDA AMBEDKAR

Class- XII A

Session 2026-27

Summer Break Holiday Homework

Dear Parents,

“School stops for summer, learning never stops.”

Summer break holiday homework is a way to keep your child connected to learning during this long break. It is an excellent opportunity to encourage children to work on their own and develop self-discipline. The holiday homework designed would not only help your child achieve the above but also help them grow as responsible individuals.

There are a few suggestions that you may keep in mind



1. Holiday homework should be done under parental guidance but not by the parents.
2. The homework should be done as per the instructions given.
3. The last date of submission of the holiday homework is 5th July 2026. No homework will be accepted after the last date.
4. The holiday homework will be graded and is a part of Internal Assessment of Term -I Exam.
5. Converse with your child in English. Encourage your child to read books to enhance his/her language and comm. skills.
6. Help to keep the house clean, clear the toys, books or craft after you have finished playing with it.
7. Be polite while speaking and talk softly.

***Plant a seed in the pot, decorate the pot. Take care of that plant for the whole month, when you will come back to school bring that pot to your school. ***

CLASS XII – ENGLISH CORE (301)

OBJECTIVES

Enhance reading, writing, speaking & listening skills.
Develop analytical and critical thinking.
Promote independent learning.

SECTION A: READING

Read any novel (100–150 pages) and prepare a reading log with summary, vocabulary, and review.

SECTION B: WRITING

Write:

1. Article (150–200 words) on 'Technology & Youth'
2. Formal Letter (Letter to Editor)

SECTION C: LITERATURE PROJECT

Project on 'The Last Lesson' or 'Lost Spring':
Themes, Character Sketch, Real-life connection, Quotes

SECTION D: ART INTEGRATION

Illustrate any scene or create infographic based on lesson

SECTION E: ASL

1. Speech (3 min) on 'Education System'
2. Listening task from news/documentary

ASSESSMENT CRITERIA

Content	5
Presentation	5
Language	5
ASL	5
Total	20

IMPORTANT INSTRUCTIONS

Homework must be **self-done (no copying)**
Maintain **handwritten work (except ASL video)**
Submit on the **first working day after vacation**

कक्षा 12वीं (आरोह भाग-2)

1. परियोजना कार्य (Project Work)

- ~ लेखक/कवि परिचय: हरिवंश राय बच्चन या महादेवी वर्मा के जीवन और उनकी रचनाओं पर एक सचित्र (pictures के साथ) प्रोजेक्ट बनाएँ।
- ~ तुलनात्मक अध्ययन: 'बाज़ार दर्शन' (जैनेंद्र कुमार) पाठ के आधार पर आज के 'ऑनलाइन शॉपिंग' और पुराने समय के बाज़ारों की तुलना करते हुए एक रिपोर्ट लिखें।

2. रचनात्मक लेखन (Creative Writing)

- 'अभिव्यक्ति और माध्यम' पुस्तक के आधार पर इन विषयों का अभ्यास करें:
- ~ फीचर लेखन: "सोशल मीडिया और आज की युवा पीढ़ी" या "बढ़ती महंगाई" पर एक आकर्षक फीचर लिखें।
- ~ आलेख (Article): "भारतीय खेलों का भविष्य" विषय पर एक प्रभावशाली आलेख तैयार करें।

3. पाठ्यपुस्तक आधारित कार्य (Homework)

- ~ शब्दार्थ कोष: आरोह के पहले 5 पाठों में से 20 कठिन शब्द चुनकर उनके अर्थ लिखें और उन्हें वाक्यों में प्रयोग करें।
- ~ कविता वाचन: 'आत्मपरिचय' या 'कविता के बहाने' को लयबद्ध तरीके से याद करें।
- ~ प्रश्नोत्तर: गद्य खंड और काव्य खंड के शुरुआती दो-दो अध्यायों के प्रश्न-उत्तर अपनी फेयर नोटबुक में पूरे करें।

4. कुछ विशेष गतिविधि

- ~ साक्षात्कार: अपने घर के किसी बड़े सदस्य का साक्षात्कार (Interview) लें और पूछें कि उनके समय के मनोरंजन और आज के मनोरंजन में क्या अंतर है। इसे संवाद शैली में लिखें।

5. कलात्मक और दृश्य कार्य (Visual & Artistic Ideas)

- ~ थीम-आधारित कोलाज (Collage): 'आरोह' की कविताओं (जैसे पतंग या बादल राग) के मुख्य भावों को दर्शाने वाला एक रंगीन कोलाज बनाएँ। आप इसके लिए पुराने अखबारों और पत्रिकाओं के चित्रों का प्रयोग कर सकते हैं।
- ~ कविता का पोस्टर: कुँवर नारायण की कविता 'कविता के बहाने' की मुख्य पंक्तियों को एक सुंदर चार्ट पेपर पर सुलेख (Calligraphy) में लिखें और उसे फूलों या पंक्षियों के चित्रों से सजाएं।

6. वितान (पूरक पुस्तिका) पर आधारित कार्य

- ~ डायरी लेखन: यशोधर बाबू की जगह खुद को रखकर उनकी शादी की 25वीं सालगिरह वाली रात का अनुभव अपनी डायरी में लिखें।

Class –XII PHYSICS

Chapter 1: Electric Charges and Fields

1. Define electric dipole moment. Is it a scalar or a vector quantity? State its SI unit.

2. State Coulomb's law in electrostatics and express it in vector form. What is the significance of the position vector?
3. What is electric flux? State its SI unit and give the condition under which the electric flux linked with a surface is maximum.
4. Explain the quantization of electric charge. Justify your answer.
5. State Gauss's theorem in electrostatics and write the mathematical expression for it.
6. Derive an expression for the electric field intensity at any point on the equatorial line of an electric dipole.
7. Two point charges of $+3\mu\text{C}$ and $-3\mu\text{C}$ are placed 20 cm apart in a vacuum. Calculate the electric field at the midpoint of the line joining the two charges.
8. Explain why two electric field lines never intersect each other at any point.
9. A thin straight infinitely long charged wire has a linear charge density of λ . Using Gauss's theorem, derive the expression for the electric field at a perpendicular distance r from the wire.
10. Calculate the number of electrons in one Coulomb of negative charge.

Chapter 2: Electrostatic Potential and Capacitance

1. Define electrostatic potential. Is it a scalar or a vector quantity? State its SI unit and dimensional formula.
2. What is an equipotential surface? Why do electric field lines always intersect equipotential surfaces at a right angle?
3. Derive an expression for the electrostatic potential energy of a system of two point charges in the absence of an external electric field.
4. Derive the formula for the capacitance of a parallel plate capacitor when the space between the plates is completely filled with a dielectric medium of dielectric constant K .
5. Obtain the expression for the capacitance of a parallel plate capacitor when a dielectric slab of thickness t is introduced between the plates.
6. Three capacitors of capacitances $2\mu\text{F}$, $3\mu\text{F}$, and $4\mu\text{F}$ are connected in parallel. Find the equivalent capacitance of the combination.
7. Define the dielectric constant of a medium in terms of capacitance. How does the introduction of a dielectric slab affect the potential difference and electric field between the plates of a capacitor?
8. A capacitor of capacitance $12\mu\text{F}$ is connected to a 50 V battery. How much electrostatic energy is stored in the capacitor?
9. Three capacitors each of capacitance $9\mu\text{F}$ are connected in series
 - a) What is the total capacitance of the combination?
 What is the potential difference across each capacitor if the combination is connected to 120 V supply?
10. Derive an expression for the energy stored in a parallel plate capacitor. Express it in terms of electric field and volume.

CLASS XII MATHEMATICS

Activity 1: Perpendicular Relations

- **Objective:** To verify that the relation in the set of all lines in a plane, defined by $ax + by + c = 0$, is **symmetric** but neither **reflexive** nor **transitive**.

- **Key Materials:** Plywood, wires, nails, white paper, and glue.

- **Questions for Review:**

1. Why is the relation not reflexive in this activity? (Hint: Consider if a line can be perpendicular to itself).
2. If line is perpendicular to , is necessarily perpendicular to ? What property does this demonstrate?.
3. If and , are and perpendicular? Explain how this affects the transitivity of the relation.

Activity 2: Parallel Relations (Equivalence)

- **Objective:** To verify that the relation in the set of all lines in a plane, defined by , is an **equivalence relation**.

- **Key Materials:** Plywood, wires, nails, white paper, and glue.

- **Questions for Review:**

1. Define the three properties a relation must satisfy to be called an **equivalence relation**.
2. Based on the activity, is every line considered parallel to itself? What does this imply about the relation's reflexivity?.
3. If and , what can you conclude about the relationship between and ?.

Activity 3: Onto but Not One-One Functions

- **Objective:** To demonstrate a function which is **onto** but **not one-one**.

- **Key Materials:** Cardboard, nails, strings, and plastic strips.

- **Questions for Review:**

1. In your demonstration, if elements 1 and 2 from Set both map to element in Set , why is the function "not one-one"?
2. What condition must be met for the function to be considered "onto"?

Activity 4: One-One but Not Onto Functions

- **Objective:** To demonstrate a function which is **one-one** but **not onto**.

- **Key Materials:** Cardboard, nails, strings, and plastic strips.

- **Questions for Review:**

1. How do you ensure every element in the domain has a unique image in the co-domain for this activity?.
2. If there is an element in Set (the co-domain) that does not have a pre-image in Set , what do we call this type of function regarding its "onto" status?.

Activity 5: Inverse Trigonometric Graphs

- **Objective:** To draw the graph of using the graph of and demonstrate the concept of **mirror reflection** about the line .

- **Key Materials:** Cardboard, white chart paper, ruler, colored pens, nails, and thin wires.

- **Questions for Review:**

1. What is the significance of the line in this activity?.
2. If you place a mirror on the line , the image of the graph represents which function?.
3. Describe the steps taken to plot the nails for the graph relative to the graph.

Class 12 Physical Education

To keep you active and ensure you're well-prepared for the upcoming board examinations, here is a balanced summer assignment. It combines practical physical activity with the theoretical requirements of the curriculum.

Part A: The Practical Portfolio (File Work)

Prepare a neat, handwritten project file. This is a mandatory component of your CBSE/Board practicals.

1. Fitness Testing:

- Perform the **SAI Khelo India Fitness Test** on yourself or a family member.
- Record the results for:
 - BMI (Body Mass Index)
 - Flamingo Balance Test
 - Plate Tapping Test
 - Sit and Reach (Flexibility)
 - Partial Curl-up and Push-ups.

2. Major Game Analysis:

- Select one game from the following: **Basketball, Football, Kabaddi, Volleyball, or Badminton.**
- Draw a labeled diagram of the court/field with accurate dimensions.
- List the latest general rules, fundamental skills, and important tournaments associated with the game.
- Identify five national or international personalities in that sport.

Part B: Yoga & Wellness

Yoga is a key unit in the Class 12 syllabus, specifically focusing on lifestyle disease prevention.

- **Asana Journal:** Identify two asanas each for preventing **Obesity, Diabetes, Asthma, and Hypertension.**
- **Documentation:** For each asana, write down:
 1. The name of the asana.
 2. Step-by-step procedure.
 3. Two benefits.
 4. Two contraindications (who should avoid it).
- **Challenge:** Practice Surya Namaskar (Sun Salutation) daily and record your progress in a weekly log.

