

KENDRIYA VIDYALAYA MALKAPURAM

Class XII – English Core

Summer Holiday Homework – 2025

Dear Students,

Use your summer break to improve your language skills while having fun and experiencing the world around you. Complete the following assignments neatly in your English Holiday Homework note book.

Part A – Writing Skills Practice

1. Notice Writing:

1. Your school is organizing a workshop on Cyber Safety for students. Draft a notice inviting students to attend the workshop.
2. You have lost your library card on the school premises. Write a notice for the school notice board.
3. As the Secretary of the Music Club of your school, draft a notice inviting students to audition for the Annual Music Competition.
4. Your school is organizing a tree plantation drive on the occasion of World Environment Day. Write a notice informing students about the event.

2. Job Application:

1. You are a qualified accountant seeking a job in a reputed firm. Draft a job application with a resume.
2. Apply for the post of an English teacher at a public school, giving your academic and professional details.
3. Draft an application for the post of a Content Writer in an online education company.
4. Write an application for the post of a Receptionist in a multinational company.

3. Letter to the editor

1. Write a letter to the editor of a national daily highlighting the need to ban the use of plastic bags.
2. Write a letter to the editor expressing concern over the rising cases of cybercrime.
3. Write a letter to the editor regarding the increasing traffic jams and suggest solutions.
4. Write a letter to the editor about the neglect of historical monuments and suggest measures for their preservation.

4. Article Writing :

1. Write an article on "The Role of Technology in Modern Education."
2. Write an article on "Fitness and Healthy Living in the Modern Age."
3. Write an article on "Impact of Social Media on Youth."
4. Write an article on "The Importance of Mental Health Awareness."

5. Report Writing :

1. Write a report on the Annual Science Exhibition held in your school.
2. Write a report for your school magazine about the Swachh Bharat Abhiyan drive carried out in your school.
3. As the Cultural Secretary, write a report on the Inter-School Debate Competition organized by your school.
4. Write a report on a blood donation camp organized by your school in collaboration with a local hospital.

### Part B – Journal Writing

#### 1. Daily Journal Entries ( For 10 Days)

Tips:

Reflect on your day: activities, thoughts, and feelings and write them down in the book.

Include at least 2 travelogues if you travel during holidays (include where you went, what you saw, experiences, photos if possible).

#### 2. Read Newspaper Editorials Daily

Read editorial or opinion pages of The Hindu / The Indian Express / Times of India.

Summarize any 10 interesting editorial or articles or news articles (title, date, newspaper name, and a 100-word summary).

### Part C – Watching/ Listening and Critical Thinking

1. Watch and Reflect on the following TED Talks and write 150 -200 words for each, summarizing your takeaway from each:

1.

[https://youtu.be/7Lc\\_dIVrg5M?si=lQSaUpCd4cxKkX2f](https://youtu.be/7Lc_dIVrg5M?si=lQSaUpCd4cxKkX2f)

2.

[https://youtu.be/vacGRuHDtO0?si=pr4\\_P0mO3sQnKnwy](https://youtu.be/vacGRuHDtO0?si=pr4_P0mO3sQnKnwy)

3.

<https://youtu.be/aDG1T0kJnd4?si=JcZPUUWUCr4L2RXi>

### Part D – Experiential Writing: Cooking and Reporting

Try Cooking 5 Staple Vegetarian Recipes Choose any five simple recipes which are regularly cooked at home.

For each recipe, document: Recipe (ingredients + steps), Photos of the process and final dish How it turned out (taste, texture) Reactions of family members.

### Submission Guidelines

All work must be handwritten in a separate Holiday Homework notebook. Organize your writing with sections clearly labeled as per Part A to Part D. Creativity, neatness, and originality will be appreciated.

Avoid copying content directly from the internet or any AI apps, If Google or ChatGPT ever sat for your exams, they might ace it — but unfortunately, they won't be there holding your pen in the classroom or board exam hall . So read, watch and train your brain to do on its own in your assignments and exams.

Happy Summer Holidays! Have a joyful, safe and enriching summer break !

#### Answers for the writing skills

Dear Students,

Complete the following tasks neatly in your notebooks. This assignment is based on previous CBSE Board Exam questions and aims to strengthen your writing skills.

#### 1. NOTICE WRITING (Attempt all 4)

Q1. Your school is organizing a workshop on Cyber Safety for students. Draft a notice inviting students to attend the workshop.

Ans:

#### KENDRIYA VIDYALAYA MALKAPURAM NOTICE

Date: 1st May 2025

#### WORKSHOP ON CYBER SAFETY

All students of Classes IX to XII are informed that a workshop on "Cyber Safety Awareness" will be held on 10th May 2025 in the school auditorium at 10:00 a.m. Experts from the Cyber Crime Branch will address the students. Interested students must register their names with their class teachers by 5th May 2025.

Sanjana Roy  
(Secretary, Cyber Club)

Q2. You have lost your library card on the school premises. Write a notice for the school notice board.

Ans:

KENDRIYA VIDYALAYA MALKAPURAM  
NOTICE

Date: 1st May 2025

LOST LIBRARY CARD

It is hereby notified that I have lost my library card (ID No. 34567) somewhere within the school premises today. If found, kindly return it to the undersigned or to the school library.

Rahul Verma  
(Class XII-A)

Q3. As the Secretary of the Music Club of your school, draft a notice inviting students to audition for the Annual Music Competition.

Ans:

KENDRIYA VIDYALAYA MALKAPURAM  
NOTICE

Date: 1st May 2025

AUDITIONS FOR ANNUAL MUSIC COMPETITION

Students interested in participating in the Annual Music Competition are invited to audition on 8th May 2025 at the Music Room, Block B, from 9:00 a.m. onwards. Bring your own instruments if required.

Anita Nair  
(Secretary, Music Club)

Q4. Your school is organizing a tree plantation drive on the occasion of World Environment Day. Write a notice informing students about the event.

Ans:

KENDRIYA VIDYALAYA MALKAPURAM  
NOTICE

Date: 1st May 2025

TREE PLANTATION DRIVE

On the occasion of World Environment Day, a Tree Plantation Drive will be organized on 5th June 2025 at 8:30 a.m. at the school garden. Students are requested to bring saplings and gardening tools. Certificates will be given to participants.

Vikram Shah  
(Eco Club Secretary)

### 3. JOB APPLICATIONS (Cover Letter + Resume)

Q1. You are a fresh graduate in English Literature. Write an application for the post of a Content Writer in an EdTech Company.

Ans:

Cover Letter:

45, Beach Road  
Visakhapatnam - 530014  
25th April 2025

The HR Manager  
Eduspark Technologies Pvt. Ltd.  
Hyderabad

Subject: Application for the Post of Content Writer

Sir/Madam,

In response to your advertisement in The Times of India dated 22nd April 2025, I wish to apply for the position of Content Writer. I am a graduate in English Literature from Andhra University, with a strong flair for writing, editing, and content creation.

I assure you of my dedication and creativity if given an opportunity.

Enclosed: Resume for yo...for your reference.

Thank you.

Yours sincerely,  
Anjali Sharma

Encl: Resume

Resume:

Name: Anjali Sharma  
Date of Birth: 15th May 2004  
Educational Qualification: B.A. (Hons.) English, Andhra University (2024)

Skills: Creative Writing, Editing, SEO Basics, Research  
Experience: Internship at 'The Literary Times' Magazine (3 months)  
Languages: English, Hindi, Telugu  
Contact: 9876543210  
Email: anjaliwrites@gmail.com

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Q2. Write an application for the post of a Receptionist at a Hotel.

Ans:

Cover Letter:

Flat No. 12, Residency Towers  
Vizag - 530003  
1st May 2025

The Manager  
Grand Ocean Hotel  
Visakhapatnam

Subject: Application for the Post of Receptionist

Sir/Madam,

With reference to your advertisement in The Hindu dated 28th April 2025, I wish to apply for the post of Receptionist. I have completed my diploma in Hospitality Management from IIHM Hyderabad.

I possess excellent communication skills, good grooming, and a pleasing personality.

Looking forward to an opportunity to serve your esteemed organization.

Yours sincerely,  
Priya Menon

Encl: Resume

Resume:

Name: Priya Menon  
Date of Birth: 12th December 2003  
Qualification: Diploma in Hospitality Management (2024)  
Skills: Communication, Customer Service, Computer Skills (MS Office)  
Experience: Internship at Hotel Park, Vizag (6 months)  
Languages: English, Hindi, Malayalam

Contact: 8899776655  
Email: priyamenon24@gmail.com

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Q3. Apply for the post of an English Teacher in a reputed school.

Ans:

Cover Letter:

D.No. 17-3-45, Sector-9  
Visakhapatnam - 530012  
30th April 2025

The Principal  
Sunshine Public School  
Visakhapatnam

Subject: Application for the Post of English Teacher

Sir/Madam,

This is in response to your advertisement published in The Hindu dated 25th April 2025. I wish to apply for the post of PGT English in your prestigious institution. I hold a Master's degree in English and a B.Ed. from Andhra University.

I assure you of my commitment to the holistic development of students.

Yours faithfully,  
Rahul Reddy

Encl: Resume

Resume:

Name: Rahul Reddy  
Date of Birth: 5th March 2000  
Qualification: M.A. English, B.Ed. (2024)  
Experience: Teaching Intern at Delhi Public School (1 year)  
Skills: Classroom Management, Creative Writing, Lesson Planning  
Languages: English, Hindi, Telugu  
Contact: 9123456789  
Email: rahulreddyeng@gmail.com

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Q4. Apply for the post of Customer Support Executive at a Bank.

Ans:

Cover Letter:

32, Seaside Apartments  
Vizag - 530002  
2nd May 2025

The HR Manager  
ABC National Bank  
Visakhapatnam

Subject: Application for the Post of Customer Support Executive

Sir/Madam,

I am writing to express my interest in the position of Customer Support Executive as advertised in The Deccan Chronicle on 30th April 2025. I have completed my B.Com and possess strong interpersonal and communication skills.

I am confident of providing excellent service to customers, ensuring satisfaction.

Kindly find enclosed my resume for your perusal.

Yours sincerely,  
Sneha Patil

Encl: Resume

Resume:

Name: Sneha Patil  
Date of Birth: 20th August 2002  
Qualification: B.Com (Banking & Insurance) - Andhra University (2024)  
Skills: Customer Service, Problem Solving, Banking Software Knowledge  
Experience: Internship at ICICI Bank (6 months)  
Languages: English, Hindi, Marathi  
Contact: 9988776655  
Email: sneha.patilbank@gmail.com

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4. LETTER TO THE EDITOR



Q1. Write a letter to the Editor of The Hindu expressing concern about increasing air pollution in your city.

Ans:

45, Shanti Nagar  
Visakhapatnam - 530013  
27th April 2025

The Editor  
The Hindu  
Visakhapatnam

Subject: Rising Air Pollution Levels in the City

Sir/Madam,

Through the columns of your esteemed newspaper, I wish to draw the attention of the concerned authorities and the public towards the alarming rise in air pollution in Visakhapatnam.

Smoke-emitting vehicles, construction dust, and industrial emissions are severely affecting the air quality, leading to health hazards like asthma and allergies. Immediate measures like stricter emission norms, plantation drives, and promoting public transport are essential.

I request the civic authorities to take swift and effective steps to address this growing menace.

Yours sincerely,  
Amit Sharma

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Q2. Write a letter to the Editor of The Times of India about the lack of proper facilities at public parks in your locality.

D.No. 22-4-55, Sector-5  
MVP Colony, Vizag  
28th April 2025

The Editor  
The Times of India  
Visakhapatnam

Subject: Poor Condition of Public Parks

Sir/Madam,

I wish to highlight the poor maintenance of public parks in our locality through the columns of your newspaper. Parks are dirty, swings are broken, and there is a lack of drinking water facilities.

Children and senior citizens are unable to use the parks properly. I request the municipal authorities to ensure regular cleaning, repairing of equipment, and provision of basic amenities.

I hope my appeal finds a voice through your newspaper.

Yours sincerely,  
Megha Rao

Q3. Write a letter to the Editor of The Indian Express complaining about reckless driving and frequent accidents caused by youngsters.

Ans:

H.No. 10-5-23, RK Beach Road  
Visakhapatnam  
29th April 2025

The Editor  
The Indian Express  
Hyderabad

Subject: Reckless Driving Leading to Frequent Accidents

Sir/Madam,

Through your newspaper, I wish to express my concern regarding the menace of reckless driving by youngsters. Overspeeding, stunts on roads, and violation of traffic rules have led to many accidents, endangering lives.

Strict action must be taken against offenders, and awareness campaigns should be organized to promote road safety.

I hope the concerned authorities will take immediate steps in this regard.

Yours faithfully,  
Arvind Kumar

Q4. Write a letter to the Editor of The Deccan Chronicle suggesting measures to improve reading habits among youth.

Ans:

B-19, Sector-11  
Vizag Steel Township  
30th April 2025

The Editor

The Deccan Chronicle  
Hyderabad

Subject: Promoting Reading Habits among Youth

Sir/Madam,

Reading among the youth has declined sharply due to excessive use of mobile phones and social media. Through your newspaper, I would like to suggest steps like organizing book fairs, setting up mobile libraries, and introducing reading hours in schools.

Developing a love for books will help in the intellectual and emotional development of our younger generation.

I request concerned authorities and educational institutions to take necessary initiatives.

Yours truly,  
Sanya Mishra

Article Writing Examples:

Title: The Impact of Social Media on Mental Health

By Suneeta

1. Social media, an essential part of modern life, has been linked to both positive and negative outcomes for users. While it allows for staying connected and informed, it has also led to a rise in mental health issues, especially among teenagers. Constant comparisons, cyberbullying, and the pressure to maintain an ideal online persona contribute to feelings of inadequacy and anxiety. Research shows that excessive screen time can disrupt sleep patterns and hinder personal development. To counter these effects, experts suggest setting boundaries on social media use, promoting digital literacy, and encouraging face-to-face interactions. Social media companies must also take responsibility for creating safer environments for users. It is essential for society to strike a balance between embracing technology and safeguarding mental well-being.

2. Title: The Importance of Climate Change Education

By Rajendra

Climate change is one of the most pressing global challenges, but there is a lack of awareness about its causes and effects. Integrating climate change education into school curricula can equip young people with the knowledge and tools needed to combat environmental degradation. Education on climate change should emphasize the importance of reducing carbon footprints, conserving energy, and adopting sustainable practices. Students can also be encouraged to take part in community initiatives like tree planting and waste reduction programs. As future leaders, they can influence policy and inspire others to act. It is only through comprehensive education and collective efforts that we can ensure a sustainable future for the planet.

3. Title: The Rise of E-Learning and Its Future

By Sushmita

The COVID-19 pandemic has accelerated the adoption of online education, changing the landscape of learning. E-learning has provided students with flexibility and access to diverse resources. However, it has also raised concerns about the digital divide, with many students lacking the necessary devices or internet connectivity. While e-learning has proven beneficial in times of crisis, its future hinges on bridging these gaps and creating a balanced approach that combines traditional and digital methods. Instructors must also focus on making online courses engaging and interactive to prevent students from feeling isolated. With the right support, e-learning can be a powerful tool for education in the 21st century.

#### 4. Title: The Growing Concern of Plastic Pollution

Plastic pollution has become a significant environmental issue, threatening wildlife and ecosystems worldwide. Single-use plastics, in particular, contribute significantly to the problem, taking hundreds of years to decompose. Governments and environmental organizations are pushing for plastic bans and promoting the use of biodegradable materials. However, more needs to be done in terms of waste management and public awareness. Recycling programs must be improved, and individuals should be encouraged to reduce their plastic consumption by using reusable bags, bottles, and containers. Combating plastic pollution requires a collective effort from individuals, industries, and governments.

#### Report Writing Examples:

##### 1. Title: Report on the Launch of a New Waste Management Initiative

By Sudeep

New Delhi: On March 25, 2025, the Municipal Corporation of Delhi launched a new waste management initiative aimed at reducing the city's growing waste problem. The program includes the installation of waste segregation bins across major localities, with separate containers for recyclable, biodegradable, and non-recyclable waste. Additionally, the initiative encourages residents to reduce waste by composting organic waste and recycling plastic and paper. A community awareness campaign has been organized to educate the public on the importance of waste segregation. The program has been met with positive response, and local authorities are hopeful that it will reduce the city's waste by 30% over the next year.

##### 2. Title: Report on the Rise in Air Pollution in Delhi:

By Vandana

Delhi continues to grapple with severe air pollution levels, especially during the winter months. The air quality index (AQI) regularly surpasses safe limits, with particulate matter (PM2.5) levels posing serious health risks. A recent study indicated that air pollution in Delhi has led to an increase in respiratory diseases, particularly among children and the elderly. The government has implemented measures such as vehicle emission standards, construction site regulations, and the promotion of electric vehicles. However, experts suggest that stricter enforcement of existing laws, increased green cover, and public awareness campaigns are essential to address the problem effectively.

##### 3. Title: Report on the Implementation of the National Education Policy (NEP) 2020

By Anand

The National Education Policy (NEP) 2020, which aims to transform the Indian education system, has been gradually implemented across schools and colleges. Key changes include a focus on multilingual education, the introduction of vocational courses, and the shift from rote learning to experiential learning. Many schools have adopted new curriculums, and teacher training programs have been revamped to align with NEP guidelines. While the policy has been praised for its progressive outlook, challenges remain in terms of infrastructure, teacher readiness, and regional disparities. Experts urge for increased funding and continuous evaluation to ensure the successful implementation of NEP across the country.

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## Part E – Experiential Writing: Cooking and Reporting

### 10. Try Cooking 5 Staple Vegetarian Recipes

Choose any five simple recipes like rice & dal, chapati with sabzi, khichdi, vegetable pulao, curd rice, etc.

For each recipe, document:

Recipe (ingredients + steps)

Photos of the process and final dish

How it turned out (taste, texture)

Reactions of family members

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### Submission Guidelines

All work must be handwritten unless otherwise mentioned.

Organize your file with sections clearly labeled as per Part A to Part E.

Creativity, neatness, and originality will be appreciated.

Avoid copying content directly from the internet /AI apps

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Have a joyful, safe, and enriching summer!  
Happy Holidays!

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Let me know if you want this formatted as a Word or PDF file too.

### 1. Notice Writing (Any 4)

1. Your school is organizing a workshop on Cyber Safety for students. Draft a notice inviting students to attend the workshop.

(CBSE 2022)

2. You have lost your library card on the school premises. Write a notice for the school notice board.  
(CBSE Sample Paper 2023)

3. As the Secretary of the Music Club of your school, draft a notice inviting students to audition for the Annual Music Competition.  
(CBSE 2021)

4. Your school is organizing a tree plantation drive on the occasion of World Environment Day. Write a notice informing students about the event.  
(CBSE 2020)

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2. Formal and Informal Invitations & Replies (2 each)

Formal Invitations (2 Questions):

1. As the Secretary of the Cultural Club, draft a formal invitation for the inauguration of your school's Annual Cultural Fest.  
(CBSE 2022)

2. You are the Secretary of the Alumni Association of your school. Draft a formal invitation to the alumni for the Alumni Meet.  
(CBSE 2021)

Formal Replies (2 Questions):

1. Draft a formal reply accepting an invitation to be the Chief Guest at the Annual Sports Day.  
(CBSE 2020)

2. Draft a formal reply declining an invitation to attend a Book Launch due to prior commitments.  
(CBSE Sample Paper 2022)

Informal Invitations (2 Questions):



1. Draft an informal invitation inviting your friend to spend the weekend at your farmhouse.  
(CBSE 2019)

2. Invite your cousin to your birthday party through an informal invitation.  
(CBSE Sample Paper 2021)

Informal Replies (2 Questions):

1. Write an informal reply accepting your friend's invitation for a housewarming party.  
(CBSE 2018)

2. Write an informal reply declining an invitation to a picnic due to examinations.  
(CBSE 2022)

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3. Job Application (4 Questions)

1. You are a qualified accountant seeking a job in a reputed firm. Draft a job application with a resume.  
(CBSE 2021)

2. Apply for the post of an English teacher at a public school, giving your academic and professional details.  
(CBSE 2022)

3. Draft an application for the post of a Content Writer in an online education company.  
(CBSE Sample Paper 2023)

4. Write an application for the post of a Receptionist in a multinational company.  
(CBSE 2020)

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4. Letter to the Editor (4 Questions)

1. Write a letter to the editor of a national daily highlighting the need to ban the use of plastic bags.  
(CBSE 2021)

2. Write a letter to the editor expressing concern over the rising cases of cybercrime.  
(CBSE Sample Paper 2023)

3. Write a letter to the editor regarding the increasing traffic jams and suggest solutions.  
(CBSE 2020)

4. Write a letter to the editor about the neglect of historical monuments and suggest measures for their preservation.  
(CBSE 2019)

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#### 5. Article Writing (4 Questions)

1. Write an article on "The Role of Technology in Modern Education."  
(CBSE Sample Paper 2023)

2. Write an article on "Fitness and Healthy Living in the Modern Age."  
(CBSE 2022)

3. Write an article on "Impact of Social Media on Youth."  
(CBSE 2021)

4. Write an article on "The Importance of Mental Health Awareness."  
(CBSE 2020)

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#### 6. Report Writing (4 Questions)

1. Write a report on the Annual Science Exhibition held in your school.  
(CBSE 2021)

2. Write a report for your school magazine about the Swachh Bharat Abhiyan drive carried out in your school.

(CBSE 2020)

3. As the Cultural Secretary, write a report on the Inter-School Debate Competition organized by your school.

(CBSE Sample Paper 2023)

4. Write a report on a blood donation camp organized by your school in collaboration with a local hospital.

(CBSE 2022)

# KENDRIYA VIDYALAYA P M SHRI, MALKAPURAM

## Class XII - Physical Education

### Summer Vacation Holiday Homework (2025-26)

#### Theory Work:

1. Complete Chapter 1 & 2 - Write detailed notes, definitions, and key points in your class notebook.
2. Learn and Practice - Memorize and write answers to important questions from Chapters 1 and 2.
3. Board Paper Practice - Download last 5 years' CBSE PE board papers, select questions from Chapters 1 & 2, and solve them.
4. Chapter 3 - Q&A - Write down all question-answers from Chapter 3 and revise.

#### Practical Work:

5. Prepare Physical Education Practical File as per CBSE guidelines:

Component	Marks
Physical Fitness Test: SAI Khelo India Test, BPFT	6 Marks
Proficiency in Games & Sports (IOA recognized)	7 Marks
Yogic Practices	7 Marks
Record File	5 Marks
Viva Voce (Health/Games/Yoga)	5 Marks

#### Record File Must Include:

- Practical 1: Fitness Test Administration (SAI Khelo India Test)
- Practical 2: Procedure, Benefits & Contraindications of any 2 Asanas related to lifestyle diseases
- Practical 3: One IOA recognized Sport/Game with labelled diagram, Rules, Terminologies & Skills

*\*Note for CWSN (Children With Special Needs): Alternatives allowed include Unified Sports, Bocce, Wheelchair games, etc.*

# PM SHRI KENDRIYA VIDYALAYA MALKAPURAM

## HOLIDAY HOME WORK

### CLASS XII MATHS

1.	The number of equivalence relations that can be defined in the set $A = \{1,2,3\}$ which containing the elements (1,2) i											
	A)	0	B)	1	C)	2	D)	3				
2	A relation R is defined as follows on N. Which of the following is reflexive relation											
	A)	$R = \{(x, y): x > y, x, y \in \mathbb{N}\}$			B)	$R = \{(x, y): x + y = 10, x, y \in \mathbb{N}\}$						
	C)	$R = \{(x, y): x + 4y = 10, x, y \in \mathbb{N}\}$			D)	$R = \{(x, y): xy \text{ is a square number } x,$						
3	A relation R is defined on Z as $aRb$ if and only if $a-b + \sqrt{2}$ is an irrational number then R is											
	A)	Reflexive			B)	symmetric and Reflexive						
	C)	transitive and Reflexive			D)	none of these						
4	Which of the following function $f: \mathbb{Z} \rightarrow \mathbb{Z}$ is a bijection											
	A)	$f(x) = x^3$	B)	$f(x) = x + 2$	C)	$f(x) = 2x + 1$	D)	$f(x) = x^2 + 1$				
5	If $F: \mathbb{N} \rightarrow \mathbb{N}$ $f(x) = \begin{cases} \frac{n+1}{2} & \text{if } n \text{ is odd} \\ \frac{n}{2} & \text{if } n \text{ is even} \end{cases}$ then F(x) is											
	A)	Bijjective		B)	One to one but not onto		C)	Onto but not one to one	D)	Neither one to one nor onto		
6	Let $X = \{1,2,3\}$ and R is relation defined in the set X as $R = \{(1,3), (2,2), (3,2)\}$ then the minimum ordered pairs should include in relation R to make it reflexive and symmetric is											
7	A)	(1,1), (2,3) and (1,2)					B)	(3,3), (3,1), and (1,2)				
	C)	(1,1), (3,3), (3,1), and (2,3)					D)	(1,1), (3,3), (3,1), and (1,2)				
8	The value of $\cos^{-1}(\frac{1}{2}) + 2 \sin^{-1}(\frac{1}{2})$ is equal to											
	A)	$\frac{\pi}{3}$		B)	$\frac{\pi}{6}$		C)	$\frac{5\pi}{6}$		D)	$\frac{7\pi}{6}$	
9	The principal value of $\sin^{-1}(\sin \frac{7\pi}{6})$											
	A)	$\frac{\pi}{6}$		B)	$\frac{7\pi}{6}$		C)	$-\frac{\pi}{6}$		D)	$\frac{\pi}{3}$	

10.	Choose correct option : $\sin(\tan^{-1} x) = \dots$ when $ x  < 1$					
	A)	$\frac{x}{\sqrt{1-x^2}}$	B)	$\frac{1}{\sqrt{1-x^2}}$	C)	$\frac{1}{\sqrt{1+x^2}}$
					D)	$\frac{x}{\sqrt{1+x^2}}$

#### VERY SHORT ANSWER TYPE QUESTIONS (2 MARKS EACH)

1. If the relation R be defined on the set N is given by a R b if  $2a+3b=30$ , then find R.
2. Show that the relation R in the set  $\{1,2,3\}$  given by  $R = \{(1,1),(2,2),(3,3),(1,2),(2,3)\}$  is reflexive but neither symmetric nor transitive.
3. Let L be the set of all lines in the xy plane defined as  $R = \{(L_1, L_2) : L_1 \parallel L_2\}$ . Show that R is an equivalence relation.
4. Let T be the set of all triangles in a plane with R a relation in the set T given by  $R = \{(T_1, T_2) : T_1 \cong T_2\}$ . Show that R is an equivalence relation.
5. Let set A represents the set of all the girls of a particular class. Relation R on A is defined as  $R = \{(a,b) : \text{difference between weights of a and b is less than 30 kg}\}$ . Show that relation R is a universal relation.
6. Show that the function  $f: R \rightarrow R$ , defined as  $f(x) = x^2$ , is neither one-one nor onto.
7. Draw the Graphs of Signum function, Modulus function and Greatest integer function.

#### VERY SHORT ANSWER TYPE QUESTIONS (2 MARKS EACH)

1. Draw the graph of the principal value branch of the function  $f(x) = \cos^{-1}x$
2. Draw the graph of  $f(x) = \sin^{-1}x$ ,  $x \in [-\frac{1}{\sqrt{2}}, \frac{1}{\sqrt{2}}]$  also write range of  $f(x)$
3. Find the value of  $\sin^{-1}(\sin \frac{3\pi}{4}) + \cos^{-1}(\cos \frac{3\pi}{4}) + \tan^{-1}1$
4. Evaluate:  $\sin^{-1}(\sin \frac{3\pi}{4}) + \cos^{-1}(\cos \pi) + \tan^{-1} \frac{1}{\sqrt{3}}$
5. Find the value of  $\sin^{-1}(\cos \frac{33\pi}{5})$

#### LONG ANSWER TYPE QUESTIONS ( 5 MARKS EACH)

1. If  $R_1$  and  $R_2$  are two equivalence relations in a set A, show that  $R_1 \cap R_2$  is also an equivalence relation.
2. Show that the relation R in the set A of points in a plane given by  $R = \{(P, Q) : \text{distance of the point P from the origin is same as the distance of the point Q from the origin}\}$ , is an equivalence relation.  
Further, show that the set of all points related to a point  $P \neq (0,0)$  is the circle passing through P with origin as Centre.
3. Show that the relation R on the set  $A = \{x \in Z : 0 \leq x \leq 12\}$ , given by

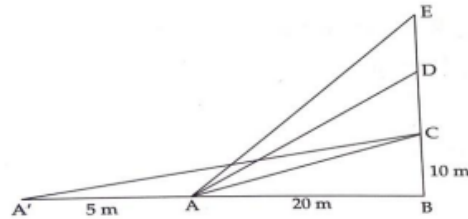
$$R = \{(a,b) : |a-b| \text{ is a multiple of } 4\} \text{ is an equivalence relation.}$$

Find the set of all elements related to 1 i. e. Find equivalence class [1].

4. Let R be the relation in  $N \times N$  defined by  $(a,b) R (c,d)$ . If  $a+d=b+c$  for  $(a,b), (c,d)$  in  $N \times N$ . Prove that R is an equivalence relation.
5. Let N be the set of all natural number and let R be a relation on  $N \times N$  defined by  $(a,b) R (c,d) \Leftrightarrow ad=bc$  for all  $(a,b), (c,d) \in N \times N$ . Show that R is an equivalence relation on  $N \times N$ .
6. Let N denote the set of all natural numbers and R be the relations on  $N \times N$  defined by  $(a,b) R (c,d) \Leftrightarrow ad(b+c) = bc(a+d)$ . Check whether R is an equivalence relation on  $N \times N$ .
7. Show that  $f: N \rightarrow N$  is given by  $f(x) = \begin{cases} x+1, & \text{if } x \text{ is odd} \\ x-1, & \text{if } x \text{ is even} \end{cases}$  is both one-one and onto.

### CASE STUDY 1

1. The Government of India is planning to fix a hoarding board at the face of a building on the road of a busy market for awareness on COVID-19 protocol. Ram, Robert and Rahim are the three engineers who are working on this project. 'A' is considered to be a person viewing the hoarding board 20m away from building, standing at the edge of a pathway nearby. Ram, Robert and Rahim suggested to the firm to place the hoarding board at the three different locations namely C, D and E. 'C' is at the height of 10m from ground level. For the viewer A, the angle of elevation of D is the double the angle of elevation C. The angle of elevation of E is triple the angle of elevation of C for the same viewer.

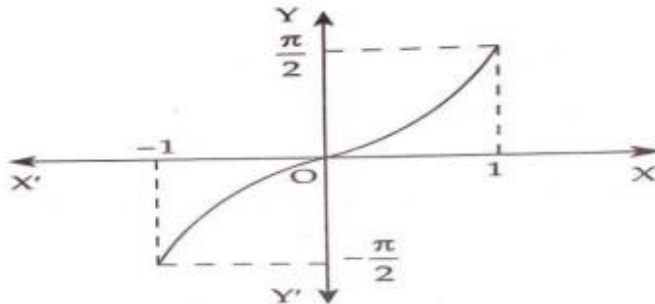


Look at the figure given above and based on the above information, answer the following questions:

- Find the measure of angle CAB
  - Write the measure of angle DAB
  - What is the value of angle EAB
- OR

A' is another viewer standing on the same line of observation across the road. If the width of the road is 5 metres, then find the difference between angle CAB and CA'B'

2. Ram and Mohan are students of Class XII. One day, their mathematics teacher told them about the inverse trigonometric functions. Teacher sketched the graph of the function  $y = \sin^{-1}x$  on the board as follows:



Based on the above information, answer the following questions:

- Write domain of the following function  $\sin^{-1}x$
- Write the range of the principal value branch of the function  $\sin^{-1}x$
- Write the range of one branch of the function  $\sin^{-1}x$ , other than principal value branch.
- Find the domain  $\sin^{-1}(1-x)$ .

**PM SHRI KENDRIYA VIDYALAYA MALKAPURAM**

**SUMMER VACATION HOMEWORK 2025-2026**

**CLASS : XII**

**Subject- History**

Topic: Art Integrated Project on Thinkers, Beliefs and Buildings.

Hints:-

1. Cover page: Topic and Details of the student.
2. Introduction of the topic.
3. Brief descriptions on the faiths- Bhakti, Buddhism, Jainism (Flow charts using geometric designs).
4. Drawings, sketches.
5. Collection of the images on the topic
6. Preparation of ancient manuscript pages.
7. Architecture of buildings like Stupas, Temples etc (Draw Sketches also).
8. Stories- Jatak Stories, Panchtantra Stories, Jaini Stories etc. and the message conveyed.
9. Map: Locating and labeling the important sites.
10. Conclusion.
11. Bibliography.

Note: Use A4 size sheets to make the project.



**PM SHRI KV MALKAPURAM**  
**HOLIDAY HOMEWORK**  
**GEOGRAPHY**  
**SUMMER VACATION (02.05.2025 to 20.06.2025)**  
**CLASS – XII**  
**Subject Teacher: K Ramesh (PGT Geo.)**

**ART INTEGRATED PROJECT**  
**THEME: POPULATION: INDIA & WORLD**  
**(Do it in A- 4 size paper and attach it in Stick file)**

**INTERNAL ASSIGNMENT**

1. Prepare Geography Practical file. This practical file should be as per the syllabus given by CBSE.

2. (i) **Map Items for identification only on outline political map of the World (Fundamentals of Human Geography)**

**Locate following map aspects in Fair notebook :**

**Ch-4-Primary Activities** ☐ **Areas of subsistence gathering (Fig 4.2)**

- ☐ **Major areas of nomadic herding of the world (4.4)**
- ☐ **Major areas of commercial livestock rearing (4.6)**
- ☐ **Major areas of extensive commercial grain farming (4.12)**
- ☐ **Major areas of mixed farming of the World (4.14)**

**Ch-7-Transport, Communication and Trade**

☐ **Terminal Stations of Transcontinental Railways- Trans-Siberian, Trans Canadian, Trans-Australian Railways**

**Major Sea Ports**

- ☐ **Europe: North Cape, London, Hamburg**
- ☐ **North America: Vancouver, San Francisco, New Orleans**
- ☐ **South America: Rio De Janeiro, Colon, Valparaiso**
- ☐ **Africa: Suez and Cape Town**
- ☐ **Asia: Yokohama, Shanghai, Hong Kong, Aden, Karachi, Kolkata**
- ☐ **Australia: Perth, Sydney, Melbourne**

**Major Airports:**

- ☐ **Asia: Tokyo, Beijing, Mumbai, Jeddah, Aden**
- ☐ **Africa: Johannesburg & Nairobi**
- ☐ **Europe: Moscow, London, Paris, Berlin and Rome**
- ☐ **North America: Chicago, New Orleans, Mexico City**
- ☐ **South America: Buenos Aires, Santiago**
- ☐ **Australia: Darwin and Wellington**

### Inland Waterways

- ☐ Suez Canal, Panama Canal, Rhine waterways and St. Lawrence Seaways

### **3. (ii) Map Items for locating and labelling on political outline map of India**

#### **(India - People and Economy)**

**Locate following aspects in fair notebook:**

**Ch-1-Population Distribution Density**

**Growth and Composition**

**State with highest population density & state with lowest population density (2011)**

**Ch-3-Land Resources and Agriculture Leading producing states of the following crops:**

**(a) Rice (b) Wheat (c)**

**Cotton (d) Jute (e) Sugarcane (f) Tea and (g) Coffee**

**5-Mineral And Energy Resources Mines:**

**Iron-ore mines: Mayurbhanj, Bailadila, Ratnagiri, Bellary**

☐ **Manganese mines: Balaghat, Shimoga**

☐ **Copper mines: Hazaribagh, Singhbhum, Khetari**

☐ **Bauxite mines: Katni, Bilaspur and Koraput**

☐ **Coal mines: Jharia, Bokaro, Raniganj, Neyveli**

☐ **Oil Refineries: Mathura, Jamnager, Barauni**

**8-International Trade Mark and label the major seaports and airports on an outline map of India.**

**Major Sea Ports:**

**Kandla, Mumbai, Marmagao, Kochi, Mangalore, Tuticorin, Chennai, Vishakhapatnam, Paradwip, Haldia**

**International Airports:**

**Ahmedabad, Mumbai, Bengaluru, Chennai, Kolkata, Guwahati, Delhi, Amritsar, Thiruvananthapuram & Hyderabad.**

**4. 05 or 10 MCQ from each chapters of two books.**