

CLASS – IX

Summer Holidays Homework-2025

ENGLISH

General Instructions:

- Students to do Literaria section as per the roll nos. allotted
- Q 2, 3 and 4 are compulsory for all and to be done as instructed.
- Handwriting should be neat and legible.
- The work should be original, creative and not copied from the Internet.
- **Date of Submission: 4th July, 2025.**

1. Literaria - Let's explore literature creatively!

(i) Interactive Timeline - The Road Not Taken (Roll nos. 1 to 10)

- **Create an interactive timeline** of the poem, "The Frog and the Nightingale." Each milestone should include a **pop-up** or **interactive flap** that reveals additional information or important quotes.
- Use drawings or cut-outs to represent key events like the Nightingale's rise to fame, her downfall, and the Frog's manipulative actions.
- Include a **commentary section** next to the timeline where you can add your thoughts on the poem's themes (like exploitation or ambition).

(ii) Comic Strip - Transform Literature into Comics (Roll nos. 11 to 20)

- **Create a comic strip** from any poem, short story, or novel you've studied. Use a comic format (panels with speech bubbles) to show how the plot unfolds in a visual way.
- For example, you can transform a dramatic scene into a funny or modern-day version using the characters as superheroes or in a different setting.

(iii) Literary Character Social Media Profiles (Roll nos. 21 to 30)

- **Create a social media profile** for a character from your favourite book or play. Imagine what their Instagram, Facebook, or Twitter would look like.
- Include **posts, hashtags, bio**, and even **comments** from other characters. This will give you a fresh, modern perspective on the character's personality and journey.

(iv) Creative book cover (Roll nos. 31 to 40)

- **Design a creative book cover** for a book or story you've studied in class.
- Include the **title, author's name**, and a **catchy tagline**.
- Use **images, symbols, and colors** that represent the book's themes or key events.
- On a separate sheet, explain (in 3-4 sentences) why you chose the images and elements for the cover.

2. **Improve your Comprehension skills-** Unit-1 **People** of MCB Reader to be done in the book.

3. Enhancing Writing Skills – Descriptive Essay

- Improve your writing skills by crafting a **descriptive essay** about any memorable day or experience.
- Focus on **sensory details** (sight, sound, touch, smell, taste) to create a vivid picture for the reader.
- **Presentation Tip:** Write the essay in neat paragraphs and use borders, colours, or images to highlight different parts of your day.

4. Story Writing – A Tale from Sikkim

Write an original or adapted folk tale from Sikkim in the form of a short story (150-200 words).

- To be done on A3 sheet and accompanied by an illustration: either draw a scene from the story or design a traditional- style border using Sikkimese art (e.g. prayer flags, mountains, dragons, monasteries).

विषय – हिंदी

GENERAL INSTRUCTIONS

खंड-अ

Roll number-wise topics have been assigned to students.

- Students need to prepare the project on the topic assigned to their roll-number group.
- The project is to be prepared as per the instructions detailed below.

खंड ब

Questions of this section are to be done by all the students in your Hindi notes register.

जमा कराने की तिथि - 03.07.2025

खंड-अ

अंडमान मलयालम भाषा के हांदुमन शब्द से आया है जो हिन्दुओं के भगवान हनुमान शब्द का परिवर्तित रूप है। निकोबार शब्द भी इसी भाषा से लिया गया है जिसका अर्थ होता है- नग्न लोगों की भूमि। बंगाल की खाड़ी में बसा निर्मल और शांत अंडमान पर्यटकों के मन को असीम आनंद की अनुभूति कराता है। यह भारत का एक लोकप्रिय द्वीप समूह है। अण्डमान और निकोबार द्वीपसमूह भारत का एक केन्द्र शासित प्रदेश है। ये बंगाल की खाड़ी के दक्षिण में हिन्द महासागर में स्थित है। अण्डमान और निकोबार द्वीप समूह लगभग 572 छोटे बड़े द्वीपों से मिलकर बना है जिनमें से सिर्फ कुछ ही द्वीपों पर लोग रहते हैं। इसकी राजधानी पोर्ट ब्लेयर है। अंडमान में सुंदर सागर तट, यादों से जुड़े खंडहर और विभिन्न दुर्लभ वनस्पतियाँ हैं। समुद्री जीव और जैव वनस्पतियों, इतिहास और जल संबंधी खेलों में रुचि रखने वाले पर्यटकों को यह द्वीप बहुत पसंद आता है। अरब सागर में स्थित 'लक्षद्वीप' भारतीय

उपमहाद्वीप का हिस्सा है। 'लक्षद्वीप' लक्षद्वीप का मलयालम और संस्कृत में मतलब होता है 'लाखों द्वीप'। अपने नाम के अनुसार ही यह द्वीप बहुत खूबसूरत है जिसे देखने हर साल दुनिया भर से सैलानी आते हैं।

अंदमान एवं निकोबार द्वीपसमूह

लक्षद्वीप



अनुक्रमांक के अनुसार दिए गए परियोजना कार्य को आकर्षक तथा रचनात्मक रूप में तैयार कीजिए :-

अनुक्रमांक 01-10

अंदमान एवं निकोबार द्वीपसमूह एक स्कैपबुक का निर्माण कीजिए।

◆ छात्र निम्नलिखित विषयों को शामिल करें:

1. परिचय – द्वीपसमूह की स्थिति और महत्व
2. इतिहास – सेलुलर जेल, स्वतंत्रता संग्राम
3. पर्यटन स्थल – राधानगर बीच, हैवलॉक, बारातांग
4. जनजातियाँ – जारवा, ओंगे, शोंपेन
5. संस्कृति और भाषा
6. प्राकृतिक सौंदर्य – समुद्री जीवन, वर्षावन
7. निष्कर्ष – द्वीपसमूह का महत्व

अनुक्रमांक 11-20

‘अंदमान एवं निकोबार द्वीपसमूह’ के लिए एक विवरणिका (Brochure) तैयार कीजिए।

◆ ब्रोशर में शामिल हो:

- स्थान और भूगोल
- ऐतिहासिक महत्त्व
- प्रमुख पर्यटन स्थल
- संस्कृति और जनजातियाँ
- जलवायु और मौसम
- पर्यावरण संरक्षण
- प्रमुख गतिविधियाँ

अनुक्रमांक 21-30

छात्र लक्षद्वीप द्वीपसमूह के बारे में जानकारी प्राप्त करें और अपनी रचनात्मकता के माध्यम से उसे पोस्टर पर चित्रों, रंगों और सूचनाओं द्वारा प्रस्तुत करें।

★ पोस्टर में शामिल करें:

1. शीर्षक: "लक्षद्वीप – भारत का समुद्री रत्न"
2. मुख्य जानकारी:
 - स्थान: अरब सागर में
 - राजधानी: कवरेत्ती
 - कुल द्वीप: 36
 - प्रमुख द्वीप: बंगाराम, अगाती, मिनिकॉय
 - भाषाएँ: मलयालम, हिंदी
 - संस्कृति, धर्म और पर्यटन स्थल
3. चित्र: समुद्र, द्वीप, नारियल पेड़, नावें, मछलियाँ आदि
4. स्लोगन (कोट्स):
 - "जहाँ नीला समंदर मुस्कुराता है – वह है लक्षद्वीप!"
 - "लक्षद्वीप – प्रकृति और संस्कृति का अद्भुत संगम!"

अनुक्रमांक 31-40

लक्षद्वीप की संस्कृति किन-किन बातों में झलकती है? वहाँ के लोगों की जीवनशैली, पहनावा, त्योहार, भाषा, खानपान और परंपराओं का संक्षिप्त वर्णन चित्रों सहित प्रस्तुत करें।

★ स्क्रेपबुक में शामिल करने के लिए बिंदु:

1. **पहनावा:** पारंपरिक मुस्लिम परिधान, पुरुष धोती-कुर्ता, महिलाएँ बुर्का या साड़ी
2. **भाषाएँ:** मलयालम, जेसरी, हिंदी
3. **त्योहार:** ईद, रमज़ान, बकरीद प्रमुख त्योहार
4. **नृत्य-संगीत:** पारंपरिक नाव नृत्य (Boat Dance), कोलक्कली
5. **खानपान:** नारियल, मछली, चावल आधारित व्यंजन
6. **जीवनशैली:** मत्स्य पालन, नारियल उत्पादन, समुद्री संस्कृति
7. **धर्म:** इस्लाम – सामाजिक रीति-रिवाज़ उसी पर आधारित

खंड ब

निम्नलिखित ग्रीष्मावकाश कार्य हिंदी उत्तर पुस्तिका के व्याकरण भाग में साफ़ एवं सुंदर लेख में कीजिए :

1. अपने छोटे भाई को पैसे बचाने और वित्तीय रूप से जागरूक होने की सलाह देते हुए लगभग (100)शब्दों में पत्र लिखिए।
2. मोबाइल फोन के दुष्परिणामों को आधार बनाकर दो मित्रों के मध्य संवाद को (100) शब्दों में लिखिए।
- 3 दिए गए चित्र को ध्यान से देखकर अपने मन में उभरे विचारों को अपनी भाषा में (100) शब्दों में प्रस्तुत कीजिए।



संस्कृत

सामान्यनिर्देशाः-

- सर्वाणि कार्याणि अनिवार्यानि सन्ति ।
- अन्तिम देय तिथिः - ३/७/२५

1.सिक्किमराज्य सम्बद्धानां उत्सवानां पर्वाणां वा ब्रोशरं सज्जीकरोतु।

अथवा

सिक्किमराज्यस्य १० प्रसिद्धपर्यटनस्थलानां विषये सूचनां दत्त्वा चित्रैः सह ब्रोशरं सज्जीकरोतु ।

यथा –

गङ्गटोकः .

प्राकृतिकसौन्दर्येण, सांस्कृतिकविरासतया च प्रसिद्धा सिक्किमराजधानी ।

नियोजनम् (Assignment)

एतत् कार्यं उत्तरपुस्तिकायां कुरुत -

संधि अभ्यासः

रेखाङ्कितपदेषु सन्धिविच्छेदं सन्धिं वा कृत्वा उत्तरं उत्तरपुस्तिकायां लिखत

1. ब्रह्ममयि जय वागीश्वरी
2. बालाः + अत्र
3. मतिरास्ताम् नः तवे पद केमले
4. साधुः + भव
5. अद्य प्रातरेव अनिष्ट दर्शनं जातम्
6. तस्मिन्नेव काले
7. कुतोऽत्र निर्जने वने तण्डुलकणान्
8. पुनः + अपि
9. वेदेषु + अपि
10. इति + आदिषु
11. किन्तु + अत्र
12. नः + अपत्य
13. धन्याः + तु
14. शयनम्

15. प्रत्यागच्छन्
16. मातुराख्या
17. अत्र + एकमत्यम्।
18. वाग् + मूलम्
19. खलु + एषः
20. भीतोऽस्मि
21. इत्यधरं
22. एतत् + मुरारि
23. हरिम् वन्दे
24. तदत्र
25. दासी + असि

अपठित गद्यांशः

अधोलिखितम् अनुच्छेदं पठित्वा प्रदत्तप्रश्नानाम् उत्तराणि लिखत

1. जगति परोपकार एव धर्मः। परोपकार-प्रवृत्तो हि धर्मात्मा पुण्यात्मा च अस्ति। उत्तमाः पुरुषाः तु स्वार्थम् उपेक्ष्य अपि परहितसाधनतत्पराः भवन्ति। स्वोदरभरणरताः तु काककुक्करा एव सन्ति। वयं पश्यामः हि यत् प्रकृतिः अपि परहितसाधनपरा वर्तते। वृक्षाः परोपकाराय एव सुस्वादूनि फलानि फलन्ति। नद्यः परोपकाराय एव शीतलं जलं वहन्ति। गावः तु परोपकाराय एव प्रकृत्या मधुरं पयः दुहन्ति। सर्वत्र एव प्रकृत्या परोपकारार्थं स्वशरीरमर्पितं क्रियते। अत्रैव शरीरस्य साफल्यम् अस्ति। परोपकाराय एव पादपः तीव्रतमं सूर्यतापं स्वमूर्ध्नि सहमानः स्वाश्रितेभ्यः पथिकेभ्यः छायां विस्तार्य सुखं वितरति। यथा दिनकरः पद्याकरं विकासयति, निशाकरः कैरवकुलं विकासयति, मेघः जलं यच्छति। परोपकार एव शरीरस्य सत्यं भूषणमस्ति।

प्रश्ना :

I. एकपदेन उत्तरत

- (i) जगति कः धर्मः?
- (ii) परोपकारः शरीरस्य कीदृशं भूषणम् अस्ति?

II. पूर्णवाक्येन उत्तरत

- (i) स्वोदरभरणरताः मनुष्याः कीदृशाः भवन्ति?
- (ii) प्रकृतिः परोपकारार्थं किं करोति?

III. भाषिककार्यम्

- (i) 'वहन्ति' पदस्य कर्तृपदं किम् अस्ति ?
- (क) परोपकारः
- (ख) धर्मः
- (ग) दिनकरः
- (घ) नद्यः

(ii) 'शीतलं जलं' अनयोः पदयोः किं विशेष्यपदम् अस्ति?

- (क) शीतलं
- (ख) जलम्
- (ग) शीतलजलम्
- (घ) नद्यः

(iii) 'दुष्टात्मा' पदस्य विलोमपदं लिखत।

- (क) सूर्यतापं
- (ख) पुण्यात्मा
- (ग) उत्तमाः
- (घ) पद्माकरं

(iv) 'तरवः' पदस्य समानार्थकपदम् गद्यांशात् चित्वा लिखत।

- (क) वृक्षाः
- (ख) नद्यः
- (ग) पुरुषाः
- (घ) गावः

IV. अनुच्छेदम् आधृत्य समुचितं शीर्षकं लिखत।

2. 'कः श्रेष्ठः? अहं ईश्वरः वा?' अहंकारी राजा राज्यसभायां स्वराज्यस्य सर्वान् पण्डितान् पृष्टवान् "किं कर्तव्यम् यदि सत्यं वदेम् तर्हि प्राणहानिः तु निश्चिता अस्ति" इति परस्परं विचारयन्तः भयत्रस्ताः पण्डिताः निरुत्तराः अभवन् राजानं च प्रार्थयन् देव दिनद्वयस्य अवधिः दीयताम् 'तथास्तु' राजा अवदत्। 'अलं चिन्तया। अहं उत्तरं दास्यामि।' चिन्ताकुलेषु तेषु एकः ज्ञानवृद्धः पण्डितः अकथयत्। नियते दिने सर्वे पण्डिताः राज्यसभां प्राप्तवन्तः। अञ्जलिं बद्ध्वा दण्डवत् प्रणम्य सः ज्ञानवृद्धः राजानम् अवदत् "राजन् निस्सन्देहं भवान् एव श्रेष्ठः न तु ईश्वरः।" 'तत् कथम्' गर्वेण मदोद्धतः राजा अपृच्छत्। 'भवान् एव श्रेष्ठः' यतः भवान् अस्मान् स्वराज्यात् बहिः निष्कासयितुं समर्थः। ईश्वरः स्वनिर्मितात् जगतः अस्मान् बहिष्कृत्य कुत्र निवासं दास्यति पण्डितः उदतरत्।

प्रश्नाः

I. एकपदेन उत्तरत

- (i) राजा आत्मानं कं मन्यते स्म?
- (ii) राजा केन मदोद्धतः आसीत्?
- (iii) पण्डिताः कति दिवसानाम् अवधिम् अयाचन्?
- (iv) पण्डितेषु कः राज्ञे उत्तरम् अयच्छत्?

II. पूर्णवाक्येन उत्तरत

- (i) पण्डिताः किमर्थम् भयभीताः अभवन्?
- (ii) राजा किं कर्तुं समर्थः ईश्वरः च किं कर्तुं समर्थः न अस्ति?

III. निर्देशानुसारम् उत्तरत

(i) 'यतः भवान् अस्मान् स्वराज्यात् बहिः निष्कासयितुं समर्थः' अत्र 'अस्मान्' पदं कस्मै प्रयुक्तम्?

- (क) ज्ञानवृद्धान्
- (ख) पण्डितान्
- (ग) पण्डितेभ्यः
- (घ) राजे

(ii) 'जगतः' इत्यस्य किं विशेषणम् अत्र प्रयुक्तम्?

- (क) समर्थः
- (ख) स्वनिर्मितात्
- (ग) श्रेष्ठः
- (घ) स्वराज्यात्

(iii) अस्मिन् अनुच्छेदे 'समयः' इत्यर्थं किं पदं प्रयुक्तम्?

- (क) नियते
- (ख) अञ्जलिं
- (ग) अवधिः
- (घ) निश्चिता

(iv) 'अन्तः' इत्यस्य किं विलोमपदम् अत्र प्रयुक्तम्?

- (क) बहिः
- (ख) बहिष्कृत्य
- (ग) मदोद्धतः
- (घ) श्रेष्ठः

IV. अस्य अनुच्छेदस्य समुचितं शीर्षकं लिखत।

FRENCH

GENERAL INSTRUCTIONS:


- All questions are mandatory for all the students.
- Assignment questions to be done in the French notes register by all students.
- **Date of submission:** 3rd July 2025

Q1 : “Ma Journée en Images” – Daily Routine Poster

Make a comic strip of your daily routine with clocks and actions on A3 size sheet.(e.g., Je me lève à 7h. Je prends le petit déjeuner.). Emphasize pronominal verbs and sequencing.

Q2 : Projet : L'État du Sikkim

Draw a simple labelled map of Sikkim. Write 10–15 lines in French about its location, neighbouring states/countries, climate, famous places, and how to reach there.

 *Ex : Le Sikkim est au nord-est de l'Inde. Il est entouré par le Bhoutan, le Népal et le Tibet. Il fait froid en hiver. On peut y aller en avion jusqu'à Bagdogra, puis en voiture...*

Assignment:

Q1: Invitez votre ami(e) avec sa famille pour votre anniversaire. Rédigez cette invitation. (30-35 mots)

Q2: Décrivez cette image à l'aide des mots suivants: (30-35 mots)
(homme, chapeau, lunette de soleil, souriant, barbe)



Q3: Mettez en ordre le dialogue et récrivez :

A: Le film commence à 20 heures. On peut se retrouver à 19h30 pour dîner avant.

B: Ah, j'adore cette série de films.

A: Salut, comment ça va ?

B: Ça va bien, merci ! Et toi ?

A: Je vais bien aussi. Tu as passé un bon week-end ?

B: Oui, j'ai fait du shopping avec mes amis. Et toi ?

A: J'ai passé mon week-end à la maison. J'ai regardé un film.

B: Quel film as-tu regardé ?

A: J'ai regardé un film d'action, « Mission Impossible ». Il était super !

B: Tu veux aller au cinéma ce week-end pour voir le nouveau film ?

MATHEMATICS

GENERAL INSTRUCTIONS

- Mathematics Holiday homework has two sections:
 - Section 1 is Model Making; students to prepare the model as per their Roll Number group.
 - Section 2 is an Assignment; it needs to be done in the Mathematics register. The assignment is mandatory for all.
- **Date of Submission:** - 7th July, 2025 (for both section 1 and Section 2)

Section 1: Model Making

1. Roll no. 1-10

Spiral of Theodorus

Represent square roots geometrically while integrating artistic designs on an A3 sized sheet.

You can refer to the link below for the same:

<https://youtu.be/ID3vT3xPHas?si=yWHdhZJywL6oujR>

2. Roll no. 11-20

Algebraic Identity Puzzle Game

Create a puzzle using different mathematical identities using cardboard pieces. Assemble the pieces on an A3 sized sheet.

Refer to the link below for the same.

https://youtu.be/w9dAW7IMFc?si=2WhI1GUnk7iqkA_Z

3. Roll no. 21-30

Interactive Cartesian Plane Board

Create a working Cartesian Plane Board. Use cardboard/foam board, colored push pins, or velcro dots, colored thread for connecting points /graphing lines, wires for quadrants.

Refer to the link below for the same:

<https://youtube.com/shorts/g9MNubxUjvg?si=HHQS5aXeZtrKYCyO>

4. Roll no 31 onwards

3-D Pop Up Nets

Make 3-D pop up nets for the following solid figures on a cardboard.

Cube, Cuboid, Cone, Cylinder

Refer to the link below for the same.

https://youtu.be/kxhsZTPDd_Y?si=3VRTY8BrglleEKRY

Section 2: Assignment

Q1. Simplify:

a) $(2\sqrt{3} + 5\sqrt{5} - 7\sqrt{7}) + (3\sqrt{5} - \sqrt{3} + 7)$

b) $5\sqrt{2} \times 3\sqrt{10} \times 2\sqrt{15}$

c) $\frac{4\sqrt{3}}{2-\sqrt{2}} + \frac{30}{4\sqrt{3}-3\sqrt{2}} - \frac{3\sqrt{2}}{3+2\sqrt{2}}$

Q2. Rationalize the denominator and find the values of a and b: $\frac{7+\sqrt{5}}{7-\sqrt{5}} - \frac{7-\sqrt{5}}{7+\sqrt{5}} = a + \frac{7\sqrt{5}}{11} b$

Q3. If $x = 2 + \sqrt{3}$, then find the value of $x^2 + \frac{1}{x^2}$.

Q4. Simplify each of the following by removing radical signs and negative indices wherever they occur.

a) $\sqrt[5]{(32)^{-3}}$

b) $(\sqrt{4})^{-7} \times (\sqrt{2})^{-5}$

Q5. Simplify: $\frac{(25)^{\frac{3}{2}} \times (343)^{\frac{5}{3}}}{16^{\frac{5}{4}} \times 8^{\frac{4}{3}} \times 7^{\frac{3}{5}}}$

Q6. If $(5)^{x-3} \times (3)^{2x-8} = 225$, then find the value of x .

Q7. If $p(x) = 7x^2 - 3x + 4$, find $p(-2) + p(3) - p(1)$

Q8. If both $(x-2)$ and $(2x-1)$ are factors of px^2+5x+r , then show that $p = r$.

Q9. Factorize: $2x^3 - 3x^2 - 17x + 30$

Q10. If $x^2 + \frac{1}{x^2} = 66$, find the value of $x - \frac{1}{x}$

SCIENCE

GENERAL INSTRUCTIONS:

- Homework has two sections:
 - Section 1 is Activity based; Students to check their class roll numbers while doing this section.
 - Section 2 is an assignment; Assignment needs to be done in the respective subject registers by all the students.

Date of Submission:

- Assignment (Section 2): 8th July, 2025
- Activities (Section 1): 9th July, 2025

Section 1:

Models:

<u>S. NO.</u>	<u>TOPIC</u>	<u>ROLL NO.</u>
1	Demonstrate Newton's third law of motion with an activity.	1-6
2	Use clay and waste materials to make the models) Make a model of a prokaryotic or a eukaryotic cell. Label it well.	7-13
3	Particle Model of Matter: Create a working model to demonstrate the particle nature of matter. You can use different coloured beads or marbles to represent atoms or molecules. Show how these particles are arranged differently in solids, liquids, and gases, and how they move relative to each other.	14-20
4	Prepare a comic strip depicting "A Day without Gravity".	21-27
5	Make a working/3D model of the sustainable and Eco friendly Green city (Based on SDG 3- Good health and well being)	28-34
6	Board game – Design a board game based with questions and challenges on Chapter-Motion (types of motion, graphical representation, equations of motion etc).	35 onwards

Section 2:

Assignment:

PHYSICS

Q1. A particle is moving in a circle of diameter 5m. Calculate the distance covered and the displacement when it completes 3 revolutions.

Q2. In a long-distance race, the athletes were expected to take four rounds of the track such that the line of finish was same as the line of start. Suppose the length of the track was 200m.

(a) What is the total distance to be covered by the athletics?

(b) What is the displacement of the athletics when they touch the finish line?

(c) Is the motion of the athletics uniform or non-uniform?

(d) Is the displacement of an athlete and the distance covered by him at the end of the race equal?

Q3. A body is moving with a velocity of 15m/s. If the motion is uniform, what will be the velocity after 10s?

Q4. A car travels along a straight line for first half time with speed 40km/hr and the second half time with speed 60km/hr. Find the average speed of the car.

Q5. A body starts rolling over a horizontal surface with an initial velocity of 0.5m/s. Due to friction, its velocity decreases at the rate of 0.05m/s^2 . How much time will it take for the body to stop?

Q6. An object travels 16m in 4s and then another 16m in 2s. What is the average speed of the object?

Q7. The length of minutes hand of a clock is 5 cm. Calculate its speed.

Q8. A body travels a distance of 15m from A to B and then moves a distance of 20m at right angles to AB. Calculate the total distance travelled and the displacement.

Q9. A car is moving on a straight road with uniform acceleration. The speed of the car varies with time as follows:

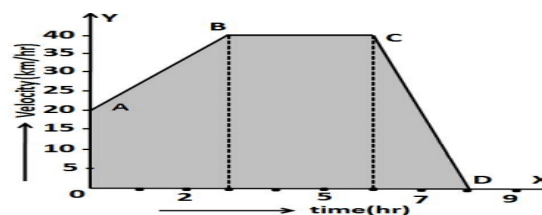
Time(t)	0	2	4	6	8	10
Speed(m/s)	4	8	12	16	20	24

Draw the speed time graph choosing a convenient scale.

Determine from it (i) the acceleration of the car (ii) the distance travelled by the car in 10 sec.

Q10. Given is a velocity-time graph for a moving body. Find:

- velocity of the body at point C
- acceleration acting on the body between A and B
- acceleration acting on the body between B and C.



CHEMISTRY

1. Substance 'A' has high compressibility and can be easily liquefied. It can take up the shape of any container. Predict the nature of the substance. Enlist four properties of this state of matter.

2. When 50 g of sugar is dissolved in 100 mL of water, there is no increase in volume. What characteristic of matter is illustrated by this observation?

3. Classify the following into osmosis or diffusion:

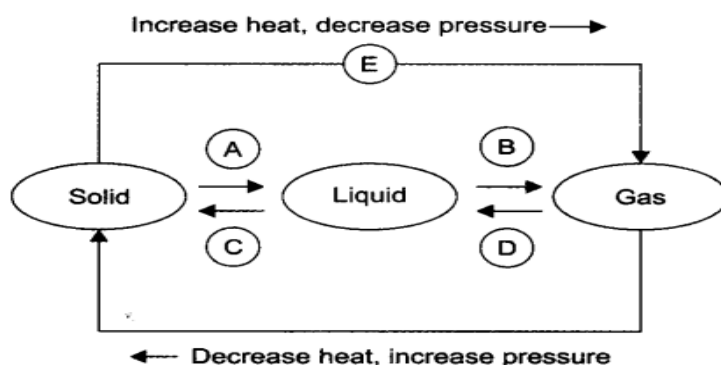
- Swelling up of a raisin on keeping in water.
- Spreading of virus on sneezing.
- Earthworm dying on coming in contact with common salt.
- Shrinking of grapes kept in thick sugar syrup.
- Preserving pickles in salt.
- Spreading of smell of cake being baked throughout the house.
- Aquatic animals using oxygen dissolved in water during respiration.

4. Explain what happens to the molecular motion and energy of 1 kg of water at 273 K when it is changed into ice at same temperature. How is the latent heat of fusion related to the energy exchange that takes place during this change of state?

5. Water as ice has a cooling effect, whereas water as steam may cause severe burns. Explain these observations.

6. Why do solids have a regular geometrical shape?

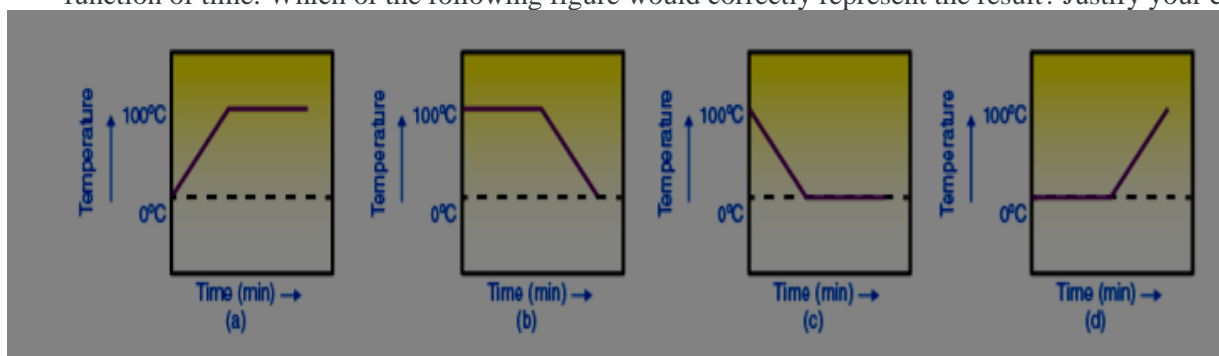
7. Name A, B, C, D, E and F in the following diagram showing a change in state of matter



8. Give reason for the following observations.

- People wear cotton clothes in summer.
- Water at room temperature can be considered a liquid.
- Water in an earthen pot (matka) cool down during summer.
- Temperature of a substance remains constant at its melting point or boiling point.
- We can easily move our hand in air but to do the same through a solid block of wood we need a karate expert.

9. A student heats a beaker containing ice and water. He measures the temperature of the content of the beaker as a function of time. Which of the following figure would correctly represent the result? Justify your choice.



10. Based on the following characteristics distinguish in tabular form the behaviour of solid, liquid and gases.

- Rigidity
- Compressibility
- Force of attraction
- Density
- Fluidity
- Kinetic energy

BIOLOGY

A. Give reason for the following-

- Raisins and dry apricots swell up when placed in a bowl containing water for some time.
- Chromatin and chromosomes are related to each other.
- Lysosomes are known as 'scavengers of the cells'.
- Plant cells possess large sized vacuole.
- Roots of plants have mostly leucoplasts in them than chloroplasts.

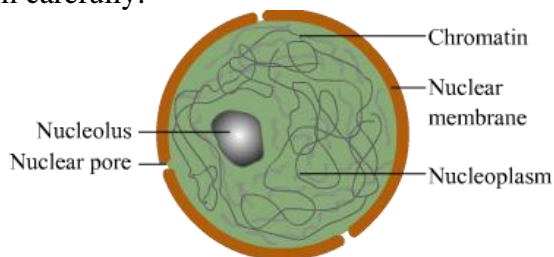
B. Name the organelles which show the analogy written as under:

- Transporting channels of the cells: _____.
- Digestive bag of the cell: _____.
- Storage sacs of the cells: _____.
- Control room of the cell: _____.
- Kitchen of the cell: _____.

6. Powerhouse of the cell: _____.
7. Packing & dispatching unit of the cell: _____.

C.Higher Order Thinking Skills.

1. A person with swollen gums rinses his mouth with lukewarm salt water and swelling of his gums decreases. This is because:
 - a. The gums absorb the salt water solution.
 - b. The salt water solution lowers the temperature of the water in the gums.
 - c. The salt in the solution moves against the concentration gradient.
 - d. The water in the gums moves out due to high concentration of salt in the solution.
2. Ritika observed onion peel cells in the lab and could view the cell wall, cytoplasm and nucleus clearly. Suddenly her friend spilled a few drops of salty water on the slide having onion peel cells. She observes some changes in the cells after sometime
 - a. What changes would have been observed by Ritika?
 - b. Name the process that caused the changes in the cells.
 - c. Would there be similar changes observed, if she had prepared a slide of cheek cells?
3. Look at the diagram carefully:



Structure of a Nucleus

- a. Which part of the above diagram can carry the 'hereditary material'?
 - b. Who discovered the nucleus for the first time?
 - c. Why is it called the 'control centre' of the cell?
4. If you are provided with some vegetables to cook, you generally add salt into the vegetables during the cooking process.
 - a. What happens to the vegetables after adding salt?
 - b. Which mechanism is responsible for the changes? Explain.
 5. Why does the skin of your mother's fingers shrink when she washes clothes for a long time?
 - a. What is responsible for these changes?

III. PORTFOLIO ACTIVITY (to be done by all the students on A4 sheets)

Sikkim is a state in northeastern India. It borders Tibet in the north and northeast, Bhutan in the east, Nepal in the west, and West Bengal in the south. Sikkim is also located close to India's Siliguri Corridor near Bangladesh. Sikkim is the least populous and second smallest among the Indian states. A part of the Eastern Himalaya, Sikkim is notable for its biodiversity, including alpine and subtropical climates, as well as being a host to Kangchenjunga, the highest peak in India and third highest on Earth. Sikkim's capital and largest city is Gangtok. Almost 35% of the state is covered by the Khangchendzonga National Park. Modern Sikkim is a multiethnic and multilingual Indian state. The official languages of the state are English, Nepali, Sikkimese and Lepcha. Additional official languages include Gurung, Limbu, Magar, Mukhia, Newari, Rai, Sherpa and Tamang for the purpose of preservation of culture and tradition in the state. English is taught in schools and used in government documents. The predominant religions are Hinduism and Vajrayana Buddhism. Sikkim's economy is largely dependent on agriculture and tourism, and as of 2014 the state had the third-smallest GDP among Indian states, although it is also among the fastest-growing.



- Write about the steps taken by the government and the people of Sikkim for environment conservation.
- Write briefly about any five flora species and five fauna species found there.
- Paste relevant pictures.

SOCIAL SCIENCE

Date of Submission: - 10 July 2025
❖ Social Science file work with attractive cover pages to be done on given topics roll no. wise.
Roll No. 1-10: Choose any one major disaster that occurred in India (e.g., 2001 Bhuj Earthquake, 2013 Uttarakhand floods, Cyclone Amphan) and create a project answering following questions: <ul style="list-style-type: none"> What caused it? What were its effects on people and the environment? What measures were taken for rescue and relief? What lessons were learned? ➤ Illustrate the work with relevant images.
Roll No. 11-20: Disaster-Prone Zones Make a project work on disasters: Earthquake, Flood, Cyclone and Landslide, providing information about the cause and effect of all four. Mark and label the disaster-prone zones on separate maps of India: <ul style="list-style-type: none"> Earthquake zones, Flood-prone rivers, Cyclone-prone coastal areas, Landslide-prone regions.
Roll No. 21-30: Safety & Preparedness from GLOF in Sikkim (2015) What was GLOF? What did people for safety precautions from it?
Roll No. 31 onwards: Creative Task (Any One) Design a poster or slogan that highlights the impacts of climate change on Sikkim. Your poster should include: Visual representations of glacial retreat, changing weather patterns, and impacts on agriculture.

❖ **Common project work for all students:** (to be done in SSC practical file)

"How did colonial forest policies affect the environment and the lives of forest-dwelling communities in India and abroad? Illustrate the changes brought about by colonial forest laws, resistance movements, and the role of tribal communities in protecting forest resources."

Your Project Must Include answers to following questions:

What are forests and why are they important? Who are forest societies?

What were Colonial Forest Policies?

How were their traditional rights restricted? How did forest policies affect their livelihood and culture?

What lessons can we learn about forest conservation today?

ASSIGNMENT

- Q1. How are mistakes corrected in a democracy?
- Q2. How is democracy better than other forms of government?
- Q3. Explain giving at least five arguments in favor of democracy.
- Q4. Distinguish between the democratic government and the non – democratic government.
- Q5. "China's famine of 1958 – 61 was a result of government policies". Elucidate.
- Q6. What is the duration of the time lag between Gujarat and Andhra Pradesh?
 - a. 2 hours b. 2 minutes c. 1-hour d. 30 minutes
- Q7. What separates Sri Lanka and India?
 - a. Palk Strait and Gulf of Mannar b. Arabian Sea and Indian Ocean
 - c. Bay of Bengal and Lakshadweep Sea d. Adam's Bridge and Palk Strait
- Q8. How has the opening of the Suez Canal helped India?
 - a. It is a tourist attraction spot and so, the tourism industry of India has flourished.
 - b. The distance between India and Europe has been reduced by 7000 km.
 - c. Both A and B
 - d. None of these
- Q9. What is the area of the landmass of India?
 - a. 3.26 million square km b. 3.12 million square km
 - c. 3.15 million square km d. 3.28 million square km
- Q10. India's total area is approximately _____ percent of the total geographical area of the world.
 - a. 1.28 b. 2.4 c. 2.8 d. 3
- Q11. This tsunami is the reason why Indira Point got submerged under the seawater. In which year did this tsunami come?
 - a. 2004 b. 2006 c. 2002 d. 2000
- Q12. What is the approximate length of India's land boundary?
 - a. 15,000 km b. 12,500 km c. 15,200 km d. 10,000 km
- Q13. What is the latitudinal and longitudinal extent of the mainland?
 - a. 20° b. 10° c. 15° d. 30°
- Q14. What is the total length of the coastline?
 - a. 5,503.6 km b. 2,999.98 km c. 7,516.6 km d. 5,258.73 km
- Q15. The Tropic of Cancer does not pass through which of the following states?
 - a. Chhattisgarh b. Tripura c. Madhya Pradesh d. Maharashtra

MODEL MAKING

Design a model on any one of the topics mentioned below as per the instructions given in the class:

Roll no 1-10: Fundamental Rights Tree

- Topic: Constitutional Design
- Create a tree with branches representing different Fundamental Rights and their significance.

Roll no 11-20: Election Process in India

- Topic: Electoral Politics
- Show steps of an election: nomination, campaigning, voting, counting. Include EVMs, ballot boxes, and voter ID cards.

Roll no 21-30: 3D Map of India Showing Election Constituencies

- Topic: Electoral Politics
- Highlight Lok Sabha constituencies or state assembly constituencies showing how India is divided for election purposes.

Roll no 31- onwards: To visually represent the economic activities, land use, and infrastructure of the fictional village *Palampur*, highlighting the **four factors of production and how they interact.**

ARTIFICIAL INTELLIGENCE

General Instructions:

- Roll number-wise topics have been assigned for students.
- AI holidays homework has two sections: -
- Section 1 is Chart /Model/Practical Exploration . This activity is allotted Roll number wise.
- Sections 2 is an assignment
- Assignment Questions to be done in the Artificial Intelligence notes register (The Assignment is mandatory for all students)
- Project is compulsory for all the students.

Date of Submission: 11th July, 2025

SECTION-1

Roll No- 1 to 10

1. Understanding AI Through Charts (Any 1 out of the following)

- **Types of AI Chart:** Create a chart explaining the different types of AI – Weak AI, Strong AI, and Super AI.
- **Applications of AI Chart:** Use a flowchart or infographic to showcase how AI is used in various industries (healthcare, transportation, education, entertainment, etc.)
- **AI Ethics Chart:** Design a visual chart explaining ethical concerns related to AI (bias, privacy, job displacement, etc.)
- **AI Learning Methods:** Illustrate Supervised, Unsupervised, and Reinforcement Learning using a concept map.

Roll No-21 to 30

2. Hands-on AI Models (Any 1 out of the following)

- **ROLL NO. 11-15: Neural Network Model:** Build a simple model using cardboard to represent a neural network with inputs, hidden layers and output.
- **ROLL NO. 16-20: AI-powered Smart Home Model:** Create a model showing AI applications in smart homes (using labels for devices like smart speakers, automated lights, etc.).
- **ROLL NO. 21-25: Self-Driving Car Concept:** Design a paper or cardboard model illustrating how AI helps cars detect objects, traffic signals, and obstacles.
- **ROLL NO. 26-30: Chatbot Model:** Develop a concept board representing how chatbots work, with an example of user input and AI response.

Roll No-31 to 40

3. Practical AI Exploration

- **ROLL NO. 31-35: AI in Daily Life Journal:** Keep a journal of AI applications you use daily (voice assistants, recommendations, search engines, etc.).
- **ROLL NO. 36-40: Mini AI Project:** Try a basic AI coding project using Scratch or Python to create a chatbot or image recognition program.

SECTION-2

Q-1 Multiple Choice Questions:

- This field is enabling computers to identify and process images as humans do:
 - Face Recognition
 - Model-view-controller
 - Computer Vision
 - Eye-in-Hand System
- What does NLP stand for in AI?
 - Neutral Learning Projection
 - Neuro-Linguistic Programming
 - Natural Language Processing
 - Neural Logic Presentation
- Which of the following is not a domain of artificial intelligence?
 - Data Management System
 - Computer Vision
 - Natural Language Processing
 - Data Science
- Which one of the following is the second stage of AI project cycle?
 - Data Exploration
 - Data Acquisition
 - Modelling
 - Problem Scoping

- v. Which of the following comes under Problem Scoping?
 - a. System Mapping
 - b. 4Ws Canvas
 - c. Data Features
 - d. Web scraping
- vi. Which of the following is not valid for Data Acquisition?
 - a. Web scraping
 - b. Surveys
 - c. Sensors
 - d. Announcements
- vii. Which of the following is not a part of the 4Ws Problem Canvas?
 - a. Who?
 - b. Why?
 - c. What?
 - d. Which?
- viii. Rearrange the steps of AI project cycle in correct order:
 - a. Data Acquisition
 - b. Problem Scoping
 - c. Modelling
 - d. Data Exploration
 - e. Deployment
 - f. Evaluation
- ix. What is the purpose of the 'Data Acquisition' phase in the AI project cycle?
 - a. To evaluate the model's performance
 - b. To gather relevant data for training the AI model
 - c. To deploy the AI system in real-time
 - d. To determine project costs
- x. What is the purpose of the Evaluation phase in the AI Project Cycle?
 - a. To collect more data
 - b. To test and improve the AI model's performance
 - c. To install software
 - d. To choose a programming language

Q-2 Explain the use of AI in the following areas in real- life:

- a) Banking & Finance
- b) Social Media
- c) Healthcare

Q-3 Explain the difference between the three domains of AI with relevant examples.

Q-4 Separate the following areas based on the kinds of domains widely used in them:

- a) Crop productivity
- b) Traffic regulation
- c) Maps and navigation
- d) Text editors and autocorrect
- e) Identifying and predicting disease

Q-5 Who defined intelligence as the “Intelligence is the capacity to learn from experience, using metacognitive processes to enhance learning and the ability to adapt to the surrounding environment”.

Q-6 Explain chatbots in brief.

Q-7 Why training with information/data is important in Artificial Intelligent devices?

Q-8: Explain any 5 Data Visualization tools used in AI Project Cycle.

Q-9: Create a 4 W canvas statement for the following examples:

- a) Let us say there is a long waiting line for the parking area in the mall near your house. People often park their cars on the roads rather than wait for their turn. This creates traffic problems. Prepare a complete problem statement using 4W Canvas.
- b) As the exams approach you observe all your friends as well as you are tired and sleepy. The school counsellor says this is due to inadequate sleep and lack of enough outdoor activity. Prepare a complete problem statement using 4W Canvas.

ART & CRAFT

GENERAL INSTRUCTIONS:

- Craft work and book pages are mandatory for all the students.
- Painting to be done on A3 size sheet by all students.
- **Date of submission:** 3 July 2025

I AM AN ARTIST: ART BOOK

PAGE - 30: Deer (ANIMAL STUDY)

PAGE – 39,72 (PANIHARIN) Any one painting from page no. 72 Indian Folk Art(on A3 size sheet).

PAGE- 71: POSTER DESIGN – Smoking kills, Save water (to be done in sketch file)

Craft Work: In **SIKKIM** handicrafts is a source of income for the inhabitants of Lakshadweep. Their handicrafts are famous all around the world. Make a pottery using required materials.

