CLASS 9 **HOLIDAY HOMEWORK (2025-26)**

ENGLISH

I) Emulating Sikkim!

While the capital of India is striving to survive the hazardous air pollution that has crept into the atmosphere, another state of India has been successful in breathing green! In 2015, Sikkim declared itself the first organic state in the world and 100% plastic free.

- **Art Integrated Project**- Comparative Study

Read up on how this was made possible and make a comparison between Sikkim, the green state and Delhi. What can Delhi learn from Sikkim?
Present your work in an artistically prepared file with art work, pictures, tables or graphs for comparison.

II) SUGGESTED READING AND FOLLOW UP ACTIVITY:

1. To Kill a Mocking Bird by Harper Lee
2. The Catcher in the Rye by J.D Salinger
3. Looking for Alaska by John Green
4. Uncle Tom's Cabin by Harriet Beecher Stowe
5. City of Djinns by William Dalrymple

- Write a **book review** of any one of the books.
- Watch the movie 'To Kill a Mocking Bird' after reading the book.

HINDI

1. लेखक श्री 'सियाराम शरण गुप्त' की दी कहानियाँ ;काकी' तथा कोटर और कुटीर' पढिए तथा उनके प्रमुख पात्र व सचित्र सार अपने शब्दों में साहित्य पुस्तिका में कीजिए।
2. भारत में पाए जाने वाले पाँच विषैले व पाँच विषहीन साँपों से संबंधित समस्त जानकारी एकत्र कर सचित्र परियोजना तैयार कीजिए।
3. कक्षा में करवाए गए समस्त कार्य को दोहराएँ।

SPANISH

Grammar Practice Worksheet (Posted on teams) For revision of the grammar topics done till now.

- Find information about Indian state Sikkim (Must include):

  Flora y fauna

  El tiempo

  La estructura de familia

GERMAN

- Schreiben Sie ein Blog über#kaufnurwasdubrauchst.
- Wiederholen Sie die Grammatik von L -1& 2

MATHEMATICS

Exploring Math Through Culture: Delhi & Sikkim

Objective: Explore math concepts using real-world cultural, geographic, and architectural elements from Delhi and Sikkim.

Geometry in Monuments

Choose one famous monument from Delhi (e.g., Qutub Minar, Lotus Temple) and one from Sikkim (e.g., Rumtek Monastery, Buddha Park).

Draw the top/bird's-eye view using geometric shapes.

Identify types of angles, lines of symmetry, and calculate approximate area and perimeter of the base.

OR

Comparing Weather and Travel

Collect average temperature and rainfall data for 5 months for both states.

Represent using bar graphs or line charts.

Calculate mean temperature and range for each.

Presentation Guidelines:

Use A3 sheets or a scrapbook for compiling your work.

Include maps, drawings, charts, and photographs to enhance visual appeal.

Provide brief explanations for each mathematical concept applied.

Ensure clarity, neatness, and creativity in your presentation.

FROM M L AGGRARWAL

Chapter test of chapter 1

Use A4 sheets to do the chapter test.

SCIENCE

Collect pictures and make a report on Energy Resources of Sikkim, Current energy scenario, Challenges in Energy Development and future potential and opportunities. (Use Four A4 size art sheets)

PHYSICS

- **Revise chapter 8 Motion**
- **Write and learn the theoretical concepts of the CHAPTER Motion**
- **Do all the given numerical in a separate small numerical notebook**
- **Using the formulae and equations of motion, solve the given numericals in the notebook .**

Q1) A body starts to slide 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?
(Ans : 10 second)

Q2.) A car is moving on a straight road with uniform acceleration. The following table gives the speed of the car at various instant of time.

Time(second)	0	10	20	30	40	50
Speed (m/s)	5	10	15	20	25	30

Draw the speed time graph using a convenient scale.
Determine.
a) Acceleration of the car
b) Distance covered by the car in 50 seconds.
(Ans a.) 0.5 m/ s^2 , b.) 8.75 m)

Q3.) A car acquires a velocity of 72km/ h in 10 seconds starting from rest. Find
a) The Acceleration
b) Distance travelled
(Ans a.) accn=2 m/s^2 b.) S = 100m)

Q4.) The brakes applied to a car produces an Acceleration of 6m/s^2 in the opposite direction to the motion. If the car takes 2 seconds to stop after applying brakes, Calculate the distance it travels during this time.

(Ans s = 12m)

Q5.) A car travels 30 km at a uniform speed of 40km/hr and the next 30 km at a uniform speed of 20km/ hr .Find its Average speed?

(Ans 26.7 km/hr)

Q6.) The ODOMETER of a car reads 2000km at the start of a trip and 2400 km at the end of a trip .If the trip took 8 hr, Calculate the average speed of the car in km/ hr and m/s ?

(Ans i.) 50 km/ hr, ii.) 13.9 m/ s)

Q7.) An object undergoes an Acceleration of 8m/s^2 starting from rest. Find the distance traveled in 1 second?

(Ans s= 4m)

Q8.) A car accelerates uniformly from 18km/ hr to 36km/hr in 5 seconds. Calculate i) Acceleration ii) The distance covered by the car in that time?

(Ans i.) a= 1m/s^2 , ii) s= 37.5 m)

Q9.) A body is thrown vertically upwards with a velocity of 98m/ s .If the Acceleration is 9.8 m/s^2. When will it reach its highest point? What will be its maximum height?

(Ans, t= 10 sec , s= 490 m)

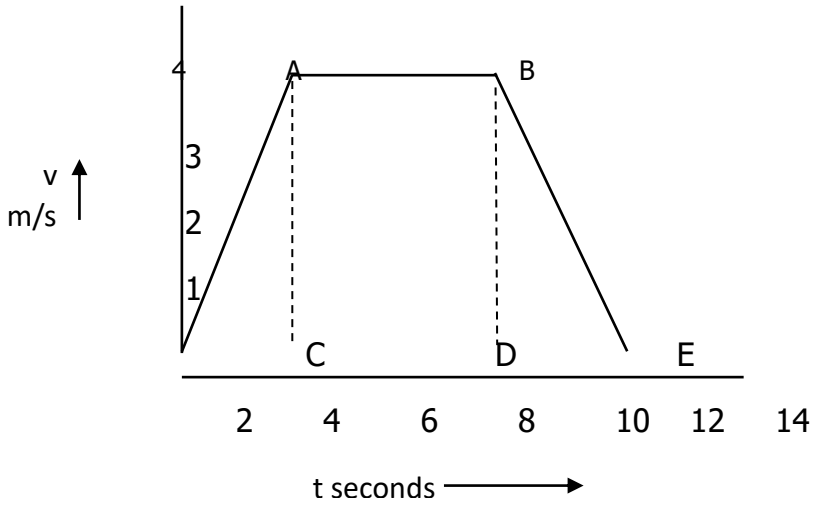
Q10.)Velocity time graph for motion of body in shown below

a) .Which part of the graph shows accelerated motion ?Also calculate the acceleration.

b).Which part of the graph shows retarded motion ?Also calculate retardation

c). Calculate the distance travelled by the body in first 4 seconds of the journey.

Ans a) OA ,a=1m/s^2 ,b) BC , a= –1m/s^2 , c) s=8m



Q11.) The following is a v-t graph for a moving body. Find

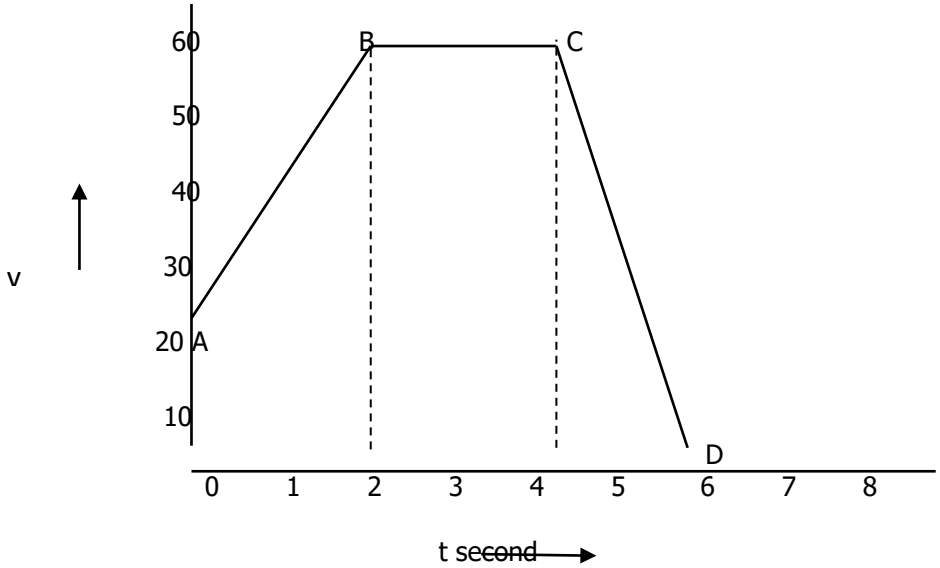
i) Velocity with which the motion started.

ii) Velocity of body at point c

iii). Acceleration acting on the body between A and B

iv). Acceleration acting on the body between B and C

Ans i). 20m/s, ii.) 60m/s ,iii.) a=13.3m/s^2 ,iv.) a=0



Q12.) A train is moving with an initial velocity of 30m/s.The brakes are applied to produce a retardation of 1.5m/s^2. Calculate the time in which it will come to rest. [Ans 20 sec]

Q13.) A child drops a ball from a height of 10m.Assume that its velocity increases at the rate of 10m/s^2. Find

i). Velocity with which the ball strikes the ground

ii). Time taken by the ball to reach the ground [Ans i) 14.14m/s, ii) 1.414 sec]

Q14.) The driver of a car is travelling at 36km/h applies the brakes to deaccelerate uniformly. The car stops in 10 seconds. Plot the speed -time graph for this period. Find the distance travelled by the car during this period by calculating the area under the graph [Ans 20 m]

Q15.) A train is travelling with a velocity of 72km/h .The brakes are applied to retard the motion of the train uniformly. If the train is stopped after 50m away from the place where brakes were applied .Find the retardation of the train [a= – 4m/s^2]

Q16.) An insect moves along a circular path of radius 10cm with a constant speed. If it takes 1 minute to move from a point on the path to diametrically opposite point, Find

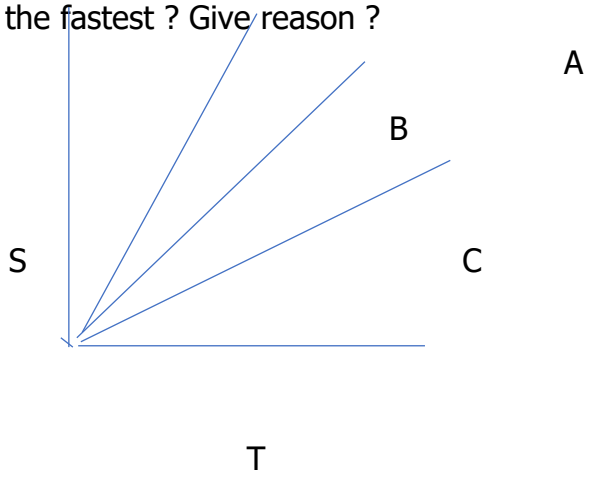
a)The distance covered.

b)Displacement

c)Speed

(Ans a.) 31.4 cm, b.)20 cm, c.) 20cm/ min)

Q17) A scooter moving at a speed of 0f 10m/s is stopped by applying brakes which produce uniform acceleration of -0.5 m/s^2.
How much distance will be covered by the scooter before it stops?
(Ans 100m)
Q 18) Three cars A,B and C are moving on a levelled road . Their distance -time graphs are shown in the figure below .
Which of the three cars will move the fastest ? Give reason ?



Q 19) A child moving on a circular of radius 40m complete one revolution in 5 minute .What is his average speed and average velocity in full revolution?

(ANS : Average speed =0.83m/s , Average velocity =0)

Q 20) A circular track has a circumference of 3140 m with AB as one of its diameter.A scooterist moves from A to B along the circular path with a uniform speed of 10m/s .FIND

a)Distance covered by the scooterist (b) Displacement of the scooterist (c) Time taken by the scooterist in reaching from A to B ?

(ANS : a) 1570m b) 999.09 m c) 157 sec)

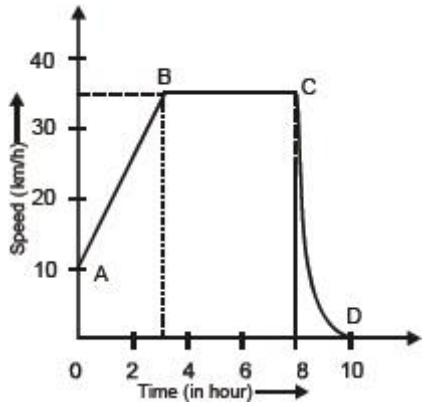
21) A big truck moving along a straight line at a speed of 54km/hr stop in 5s after the breaks are applied.

1. Find the acceleration, assuming it to constant.
2. Plot the graph of speed versus time.
3. Using the graph. Find the distance covered by the car after the brakes are applied?
   (ANS 1) -3m/s^2 3) 37.5m)

22) The graph given alongside shows how the speed of a car changes with time.

(i) What is the initial speed of the car?
(ii) What is the maximum speed attained by the car?
(iii) Which part of the graph shows zero acceleration?
(iv) Which part of the graph shows varying retardation?

(v) Find the distance travelled in first 8 hours.



23)

The following table gives the data about motion of a car.

Time (h)	11.00	11.30	12.00	12.30	1.00
Distance (km)	0	30	30	65	100

Plot the graph.

(i) Find the speed of the car between 12.00 hours and 12.30 hours.

(ii) What is the average speed of the car?

(iii) Is the car's motion an example of uniform motion? Justify.

ART INTEGRATED HOME WORK

Create a toy that demonstrates the application of Newton's Laws of motion

CHEMISTRY

1.Learn the names, symbols and atomic number of first 18 elements in the periodic table.

2.Write the names of commonly used chemicals with their chemical formulae and uses. (Any 10 on A4 size sheet)

3.Make marbled sheet on A4 size sheet. (Principle :- Diffusion)

4.Revision work sheet.

BIOLOGY

Assignment 1:

Create a 3D model of your assigned cell structure.

Refer to the link below to find your assigned cell structure:

https://docs.google.com/document/d/11E-zcTwYFjZLy7t9LDs3boAPP7J_Nttw6yDqz6Ynb70/edit?usp=sharing

Assignment 2:

Complete the worksheet provided in the link below:
https://docs.google.com/document/d/1Nr8-apD5nUz9dTtJr-fJO2YFA8sc66xlyQuz0VENnN8/edit?usp=sharing

SOCIAL SCIENCE

SOCIAL SCIENCE PROJECT 1, 2025-26
ACTIVITY: DISASTER MANAGEMENT PROJECT

As per the guidelines of CBSE students have to compulsorily undertake one project on Disaster Management. The main objective of this project is to create awareness in them about different disasters, their consequences and management, prepare them in advance to face such situations and enable them to create awareness and preparedness among the community. Students must research about the disasters, their types, causes and mitigation strategies which would help in enhancing their life skills.

INSTRUCTIONS:

1. Students will undertake this as a group (House) activity. Students of every House will choose one type of disaster- Natural or Human-made disaster and every student in the group will take up any one disaster under the respective category. (Topic, definition, causes, mitigation strategies, one case study. Each student will contribute 3-4 A4 size sheets, a map showing disaster prone zones of India.
2. Every group will present their project as a handbook, spiral binded with a Cover page, Introduction and Bibliography at the end.
3. Each student must mention her name, roll number, class, and section at the end her own work.
4. This group activity must have the individual contribution of every student.
5. Students can seek help from NCERT resources and online resources too.
6. This project must be an Art Integrated Activity. It must be colourful and creatively presented.
7. Students should use only light or pastel-coloured sheets.
8. Students should draw/ sketch or trace the pictures. Avoid Pasting of pictures.

Criteria for Assessment:
1. Originality 2 marks
2. Creativity 2 marks

3. Content 2 marks
4. Team work 2 marks
5. Overall Presentation 2 marks

ARTIFICIAL INTELLIGENCE

Q1. Visual communication is the use of visual elements to convey information and messages. Such visual elements include pictures, illustrations, diagrams, charts, logos, films, and more.

Design a poster on an A4 size sheet to advertise a product of your choice.

Q2. The following has to be done in the AI notebook

a) Write the code in Python to display the number of hours in a year(365 days) using variables.

b) The base and height of a triangle are 7cm and 8 cm respectively. Write the code to assign these values to variables, calculate the area and display it.