SUMMER HOLIDAY ASSIGNMENTS
CLASS 9 (CBSE) 24-25

ENGLISH

(Submit in the Google Classroom folder created for Holiday Homework submission.)
1. The following are the chapters included in the syllabus for class IX 2024-25. Choose any one text and prepare an informative, all-encompassing and vivid PPT. You will present it in the class for the understanding of others. Emphasise the central idea, theme and values latent in the text.
The Fun They Had
The Sound of Music
The Little Girl
A Truly Beautiful Mind
The Snake and the Mirror
My Childhood
Reach For The Top
Kathmandu
If I Were You
The Road Not Taken
Wind
Rain on The Roof
The Lake Isle of Innisfree
A Legend of the Northland
No Men Are Foreign
On killing a tree
A Slumber Did My Spirit Seal
The Lost Child
The Adventures of Toto
Iswaran the Storyteller
In the Kingdom of fools
The Happy Prince
The Last Leaf
A House is not a Home
The Beggar

2. Compose a poem incorporating the literary devices you like the most. Try to use as many figures of speech as possible.
3. Out of the prose texts prescribed in your syllabus prepare a script for a short film or skit.
4. Word Search or Crossword: Create a word search or crossword puzzle using vocabulary from the current unit.
5. Author Study: Research and create a visual project about an author from the prescribed texts.
Literary Scavenger Hunt: Find and analyse examples of literary devices in media and everyday life.

HINDI

1) गर्मी की छुट्टियों में आपके द्वारा किए गए सामाजिक कार्यों की जानकारी देते हुए अपने मित्र को पत्र लिखिए।

2) बिहार राज्य को केंद्र में रखकर हिंदी प्रोजेक्ट बनाइए।

3) सुख मनाने का अधिकार सबको नहीं होता -- इस विषय के पक्ष अथवा विपक्ष में अपने विचार लिखिए।

4) आप अपना स्ववृत्त (Portfolio) तैयार कीजिए।

FRENCH
Create a fun collage of your summer adventures!

Cut out pictures from magazines, and newspapers, or print them from the internet to represent activities you are doing during the holidays, such as swimming, hiking, or visiting family. Glue the pictures onto a piece of cardboard or poster board and add captions or short descriptions in French.

SANSKRIT

- धातुरूप- परस्मैपद , आत्मनैपद

प्रत्यय - क्त्वा

शब्दरूप- पुंलिंग, स्त्रीलिङ्ग, नपुंसकलिङ्ग

पाठ - 1,2

याद करें व लिखिए

MATHEMATICS

Express each of the following decimals in the form p/q : (i) $0.\overline{4}$ (ii) 0. 37

(iii) 0.437437437 ------- (iv) 0.2562626262 ------

In each of the following determine rational numbers a and b:

(i) $\frac{\sqrt{3}-1}{\sqrt{3}+1}=a-b\sqrt{3}$

(ii) $\frac{4+\sqrt{2}}{2+\sqrt{2}}=a-\sqrt{b}$

(iii) $\frac{3+\sqrt{2}}{3-\sqrt{2}}=a+b\sqrt{2}$

(iv) $\frac{5+3\sqrt{3}}{7+4\sqrt{3}}=a+b\sqrt{3}$

(v) $\frac{\sqrt{11}-\sqrt{7}}{\sqrt{11}+\sqrt{7}}=a-b\sqrt{77}$

Find the values of x in each of the following:

(i) $2^{5x}\div 2^{x}=\sqrt[5]{2^{20}}$

(ii) $\left(2^{3}\right)^{4}=\left(2^{2}\right)^{x}$

(iii) $\left(\frac{3}{5}\right)^{x}\left(\frac{5}{x}\right)^{2x}=\frac{125}{27}$

Prove that:

(i) $9^{\frac{3}{2}}-3\times 5^{0}-\left(\frac{1}{81}\right)^{-\frac{1}{2}}=15$

(ii) $\left(\frac{1}{4}\right)^{-2}-3\times 8^{\frac{2}{3}}\times 4^{0}+\left(\frac{9}{16}\right)^{-\frac{1}{2}}=\frac{16}{3}$

(iii) $\frac{2^{\frac{1}{2}}\times 3^{\frac{1}{3}}\times 4^{\frac{1}{4}}}{10^{-\frac{1}{5}}\times 5^{\frac{3}{5}}}\div\frac{3^{\frac{4}{3}}\times 5^{\frac{-7}{5}}}{4^{\frac{-3}{5}}\times 6}=10$

PHYSICS

Level (A) Back to Basics

Q1. Write SI units of the following quantities:(i) mass (ii) time (iii) distance (iv) displacement (v) speed (vi) acceleration (vii) force (viii) energy.

Q2. Convert the following

(i) 40cm = ……. m

(ii) 20 g = ……. kg

(iii) 36 km/h into m/s.

(iv) 1 g/cm^3 in to kg/m^3.

Q3. Define the following:

(i) Distance (ii) Displacement (iii) Speed (iv) Velocity (v) Acceleration (vi) Uniform motion

Q4. Draw a graph between the Distance and Time of a car moving with a constant speed in a straight line.

Q5. Classify the following physical quantities as Scalar and Vector:

Distance, Velocity, Acceleration, Force, Energy, Power, Mass, Displacement

Level (B) Moderate

Q6. Calculate the distance and displacement of a car as it travels along a circular track of radius 28 m and completes: (i) ¼ round of the circular track

(ii) half the round of the circular track

(iii) ¾ round of the circular track

(iv) Ten complete rounds of the circular track

Q7. State the necessary condition for distance and displacement to be equal.

Q8. State the necessary condition for the speed of an object to be the same as its average speed.

Q9. Distinguish between Distance and Displacement.

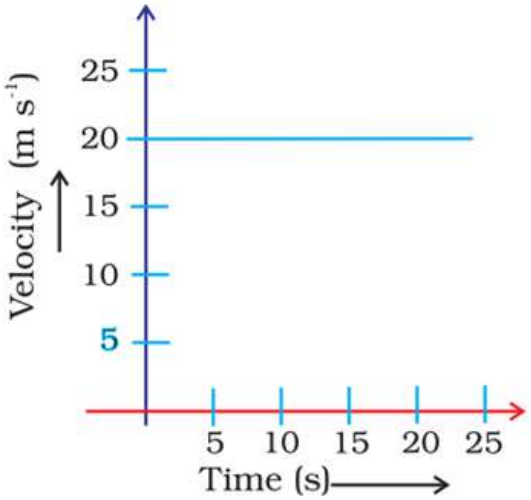
Q10. Distinguish between Speed and Velocity.

Level (C) Higher Order thinking skill

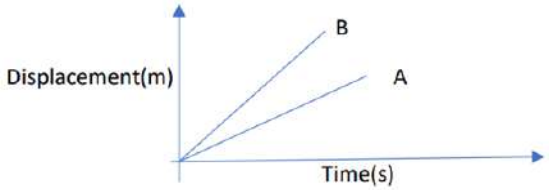
Q11.Find the average speed of a bus that travels at a speed of 60 km/hr for three hours and then travels for another two hours at a speed of 40 km/hr.

Q12. A motorcyclist drives from P to Q with a uniform speed of 40 km/h and returns back with a speed of 60 km/h. Find its average speed.

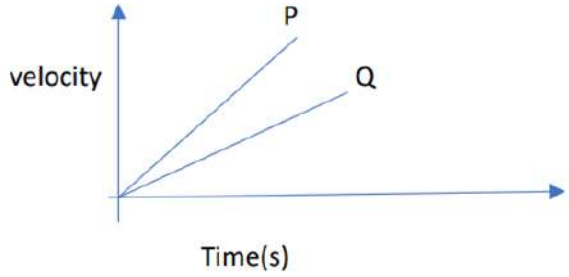
Q13. The velocity-time graph shows the motion of a cyclist. Find (i) its acceleration (ii) its velocity and (iii) the distance covered by the cyclist in 25 seconds.



Q14. The displacement -time graph of two cars A and B are as shown. Which car has a smaller velocity? Justify your answer.



Q15. The velocity-time graph of two different cars, P and Q, is as shown. Which line P or Q represents the motion of the car with greater acceleration? Justify your answer.



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CHEMISTRY

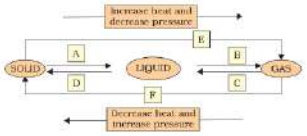
Class 9th CBSE Holiday Homework

Section A (Back to Basics)

1. Differentiate between the physical properties of Metals and Non-Metals
2. Give reasons.
   (a) Water is not used to control fire involving electrical equipment.
   (b) LPG is a better domestic fuel than wood.
   (c) Phosphorous is stored in water
   (d) Copper cannot displace zinc from its salt solution.
   (e) Immersion rods for heating liquids are made up of metallic substances.
3. (a) What do CFCs stand for?
   (b) Why CFCs are considered as pollutants?
   (c) What is Global Warming?
   (d) Why it's not good for our planet?
   (e) Give two practical solutions to stop Global Warming.

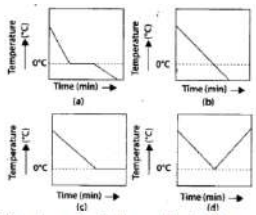
Section B (General Questions)

4. (i) Convert the following temperature to Celsius scale: (a) 300 K (b) 573 K
   (ii) Convert the following temperatures to the Kelvin scale. (a) 25°C (b) 373°C.
5. Shruti commutes in a CNG fitted van to school every day along with many other students. She told the van driver to get the CNG connection certified and timely checked it for any leakage or loose connection of pipes. She told the driver to be more careful during summers.
   (a) What is CNG?
   (b) Why should one be more careful with CNG cylinders during summer?
6. Justify the following observations.
   (a) Naphthalene balls disappear with time without leaving any solid.
   (b) We can get the smell of perfume sitting several metres away.
   (c) A diver is able to cut through water in a swimming pool.
   (d) A balloon when kept in sun, bursts after some time.
7. Name A, B, C, D, E and F in the following diagram showing change in its state

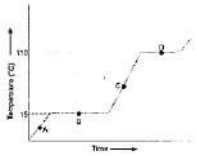


8. Fill in the blanks:
   (a) Evaporation of a liquid at room temperature leads to a _____ effect.
   (b) At room temperature the forces of attraction between the particles of solid substances are _____ than those which exist in the gaseous state.
   (c) The arrangement of particles is less ordered in the _____ state. However, there i no order in the state.
   (d) _____ is the change of gaseous state directly to solid state without going throu the _____ state.
   (e) The phenomenon of change of a liquid into the gaseous state at any temperatur below its boiling point is called _____.

9. A glass tumbler containing hot water is kept in the freezer compartment of a refrigerator (temperature < 0°C). If you could measure the temperature of the cont of the tumbler, which of the following graphs would correctly represent the chang its temperature as a function of time.



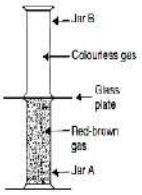
10. The given graph shows the heating curve for a pure substance. The temperature rises with time as the substance is heated:



(a) What is the physical state of the substance at the points A, B, C and D?
(b) What is the melting point of the substance?
(c) What is its boiling point?
(d) What happens to the temperature while the substance is changing state?
(e) The substance is not water. How can you judge from the graph?

Section C (Higher Order Thinking Skills Questions)

11. Look at the diagram on the right side. Jar A contains a red-brown gas whereas jar B contains a colourless gas. The two gas jars are separated by a glass plate placed between them.
    (a) What will happen when the glass plate between the two jars is pulled away ?
    (b) What name is given to the phenomenon which takes place ?
    (c) Name the brown gas which could be in jar A.
    (d) Which is the colourless gas most likely to be present in jar B ?
    (e) Name one coloured solid and one colourless liquid which can show the same phenomenon.



12. Bromine and air take about 15 minutes to diffuse completely but bromine diffuses into a vacuum very rapidly. Why is this so ?
13. Bromine particles are almost twice as heavy as chlorine particles. Which gas will diffuse faster , bromine (vapour) or chlorine ? Explain your answer.
14. Why is a liquid (the hydraulic fluid) used to operate the brakes in a car ?
15. Explain why, a small volume of water in a kettle can fill a kitchen with steam.
16. Explain why, osmosis can be considered to be a special kind of diffusion. Classify the following into (*i*) osmosis, and (*ii*) diffusion :
    (*a*) swelling up of a raisin on keeping in water
    (*b*) spreading of virus on sneezing

BIOLOGY

Prepare a project on any **ONE** of the following topics:

1. How structure of a cell is related to its function: Research of different type of cells like egg cell, sperm cell, neuron, ciliated cells, fat cells, rods and cone cells and how their structure is related to their function.

2. Cell Structure: Research on structure and functions of different cell organelles like nucleus, endoplasmic reticulum, Golgi apparatus, mitochondria etc. and their functions.

3. Natural Resources: Project on restoration of ecological functions of Natural infrastructure. (Forests, lakes, ponds, rivers, floodplains and wetlands are all examples f natural infrastructures that provide continuing benefits to us socially and ecologically). You can visit any natural infrastructure of your area and prepare a report including its details, its importance, challenges it is facing and suggested activities for its restoration. You can include images of yourself at the site you selected.

Images/video clips should be added. You can submit your project report as a file.

HISTORY

Synopsis for Interdisciplinary Project
Topic: Forest, Society and Colonialism
Date of submission: soft copy by 5 June 2024
Hard copy of project by 22 June
1.How Forest resources were classified and exploited by the colonial regime?
2.Forest rules and its impact on the forest dwellers.
3. Changes that took place in Jawa during colonial rule.
4 . Why forest has been brought under cultivation?
5.The Role of the government in protecting the forest cover and the wild life at present.
(Note (1) PPT (8 TO 10 SLIDES) or Project 8 to 10 pages .

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GEOGRAPHY

Disaster Management Project Class 9 CBSE 2024.pdf

ECONOMICS

1. Read the text given below and answer the following questions:

Palampur is well-connected with neighbouring villages and towns. Raiganj, a big village, is 3 kms from Palampur. An all-weather road connects the village to Raiganj and further on to the nearest small town of Shahpur. This village has about 450 families belonging to several different castes. The 80 upper caste families own the majority of land in the village. Their houses, some of them quite large, are made of brick with cement plastering. The SCs (dalits) comprise one third of the population and live in one corner of the village and in much smaller houses some of which are of mud and straw. Most of the houses have electric connections. Electricity powers all the tube wells in the fields and is used in various types of small business. Palampur has two primary schools and one high school. There is a primary health centre run by the government and one private dispensary where the sick are treated. The story of Palampur, an imaginary village, will take us through the different types of production activities in the village. In villages across India, farming is the main production activity. The other production activities, referred to as non- farm activities include small manufacturing, transport, shop-keeping, etc. Every production is organised by combining land, labour, physical capital and human capital, which are known as factors of production.

1. Raiganj, a big village, is ____ kms from Palampur.
(A) 5 (B) 4 (C) 3 (D) 1

2. Which of the following statement is true with respect to Palampur:
(A) Palampur has one primary school and two high schools.
(B) Palampur has two primary schools and one high school.
(C) Dairy is the main production activity.
(D) The village has about 600 families belonging to several different castes.

3. Raw materials and money in hand are called:
(A) working capital (B) fixed capital
(C) human capital (D) None of the above

4. The variety of inputs required at every stage during production is known as_____.
(A) physical capital (B) labour
(C) human capital (D) None of the above

2. Read the text given below and answer the following questions:
Farming is the main production activity in Palampur. 75 percent of the people who are working are dependent on farming for their livelihood. All land is cultivated in Palampur. No land is left idle. During the rainy season (kharif) farmers grow jowar and bajra. These plants are used as cattle feed. It is followed by cultivation of potato between October and December. In the winter season (rabi), fields are sown with wheat. The main reason why farmers are able to grow three different crops in a year in Palampur is due to the well-developed system of irrigation.

To grow more than one crop on a piece of land during the year is known as multiple cropping. One way of increasing production from the same land is by multiple cropping. The other way is to use modern farming methods for higher yield. Yield is measured as crop produced on a given piece of land during a single season. Till the mid1960s, the seeds used in cultivation were traditional ones with relatively low yields. Traditional seeds needed less irrigation. Farmers used cow-dung and other natural manure as fertilizers. All these were readily available with the farmers who did not have to buy them.

The Green Revolution in the late 1960s introduced the Indian farmer to cultivation of wheat and rice using high yielding varieties (HYVs) of seeds. Farmers of Punjab, Haryana and Western Uttar Pradesh were the first to try out the modern farming method in India. In Palampur, the yield of wheat grown from the traditional varieties was 1,300 kg per hectare. With HYV seeds, the yield went up to 3,200 kg per hectare. There was a large increase in the production of wheat. Farmers now had greater amounts of surplus wheat to sell in the markets.

1. During the Rainy season (Kharif) farmers grow which crop?

2. The Green Revolution in the late 1960s introduced the Indian farmer to cultivation of which crops?

3. Define Multiple Cropping.

ARTIFICIAL INTELLIGENCE

The objective of this assignment is to familiarize students with emerging technologies and develop their research, presentation, and digital communication skills.

Instructions:

1. Choose an Emerging Technology: Each student will select one emerging technology to research and create a digital presentation on. Examples of emerging technologies include artificial intelligence, blockchain, Internet of Things (IoT), virtual reality, augmented reality, 3D printing, etc.
2. Research: Students will conduct thorough research on their chosen emerging technology. They should gather information about its definition, principles, working mechanism, applications, advantages, limitations, and potential impact on society and industries.
3. Create a Digital Presentation: Using presentation software like Microsoft PowerPoint, Google Slides, or Prezi, students will create a visually appealing and informative digital presentation on their chosen emerging technology. The presentation should include the following components:
   - Title slide: Title of the presentation, student's name, class, and date.
   - Introduction to the technology: Brief overview and definition.
   - Principles and working mechanism: Explanation of how the technology works.
   - Applications: Real-world applications and use cases in various fields.
   - Advantages and limitations: Benefits and challenges associated with the technology.
   - Impact on society and industries: Discussion on the potential societal, economic, and environmental impacts.
   - Future prospects: Predictions for the future development and adoption of the technology.
   - Conclusion: Summary of key points discussed.
4. Visual Aids: use visual aids such as images, diagrams, charts, graphs, and videos to enhance their presentation and illustrate key concepts.
5. Presentation Guidelines:
   - The presentation should be well-organized, clear, and concise.
   - Use bullet points and short sentences to convey information effectively.
   - Ensure proper formatting, layout, and design to maintain visual appeal.
   - Practice speaking confidently and engagingly during the presentation.
6. Submission: Students will submit their completed digital presentations on google classroom.

PAINTING

1. Learn the fundamentals (elements and properties) of art and the six limbs of art.
2. Draw 5 sketches of objects like teapots, cups, flowers, fruits, vegetables, and geometric shapes.
