GYAN MANDIR PUBLIC SCHOOL
SESSION 2024-25
CLASS-X
SUMMER HOLIDAY HOMEWORK

- **ACADEMIC HOMEWORK**

ENGLISH

1. You are Ashish/Astha, a resident of #254, Vigyan Vihar, Amla, Madhya Pradesh. You are worried to see your younger brother's frequent habit of using Internet as a homework tool. Taking ideas from the input given below and your own, write a letter to the Editor of a popular newspaper, expressing your opinion on the advantages, disadvantages of the dependence of youth and the computers in the present times. (100–120 words)

2. Tourism being one of the biggest and fastest-growing industries globally, affects the economic, socio-cultural, environmental and educational resources of nations. Improving the tourism industry in India would thus lead to national development in many spheres. As Ankit/ Ankita, write a letter to the Editor of The Times of India expressing your views on the same. You may take ideas from the unit– Glimpses Of India, besides your own ideas. (about 100–120 words)

3. Analytical Paragraph

4. Write a conversation between a tiger kept in the zoo and the tiger living in its natural habitat. (100-120 words)

HINDI

सामान्य निर्देश-

- **संपूर्ण कार्य करना आवश्यक हैI**
- **संपूर्ण कार्य दिए गए निर्देशानुसार करेंI**
- **सुलेख सुंदर लिखाई में करेंI**
- **ओपन डे प्रोजेक्ट के लिए आकर्षक मॉडल , फ्लैश कार्ड, सूचना कार्ड निर्देशानुसार बनाइए।**

अकादमी कार्य (शैक्षणिक कार्य)

- असाइनमेंट में से अप्रैल-मई के अपठित गद्यांश व्याकरण संबंधित प्रश्न- उत्तर, लेखन भाग, बहुविकल्पीय प्रश्न- उत्तर हिंदी उत्तर पुस्तिका R2 में करेंI
- असाइनमेंट में से अप्रैल-मई बहुविकल्पीय प्रश्न- उत्तर हिंदी उत्तर पुस्तिका R2 में करेंI
- **नोट**- आवधिक परीक्षा के लिए कक्षा में करवाए गए पाठ्यक्रम का अभ्यास एवं दोहरान कार्य करें I

ओपन डे प्रोजेक्ट एस.डी.जी 4 तथा एस.डी.जी 14 पर आधारित हैI

एस.डी.जी 14 का लोगो (logo) (jute bag) पर बनाकर पानी के नीचे रहने वाले जीवों पर बढ़ते प्रदूषण का प्रभाव पर मॉडल बनाइए ।

MATHEMATICS

Do Assignments on chapters 1 to 5 in separate note book.
Do the following activities in Maths Activity file.(Activities will be sent in class group)
To obtain the condition for consistency of a system of linear equations in two variables.
To verify experimentally that the sum of the first natural number is $n(n+1)/2$
To verify experimentally that the sum of n odd natural number is n^2.
To establish the formula for sum of first n terms of an A.P.

SCIENCE

CHEMISTRY:
Learn all the question answer of ch-1 and complete the assignment work.
Do the following questions in your Chemistry register
Q1. Short Answer type questions:
(a) Write about different types of chemical reactions with examples.
(b) What happens chemically when quick lime is added to water?
(c) How will you test for the gas which is liberated when HCL reacts with an active metal?
(d) What is an oxidation reaction? Is it exothermic or endothermic? Give one example of oxidation Reaction.
(e) Give an example of photochemical reaction.
(f) Give an example of a decomposition reaction. Describe any activity to illustrate such a reaction by heating.
(g) Why is respiration considered as exothermic process?

Q2. Balance the following chemical reactions:

1. $Al + CuCl_2 \rightarrow AlCl_3 + Cu$
2. $FeSO_4 \rightarrow Fe_2O_3 + SO_2 + SO_3$
3. $Fe + H_2O \rightarrow Fe_3O_4 + H_2$
4. $BaCl_2 + H_2SO_4 \rightarrow BaSO_4 + HCl$
5. $Ca(OH)_2 + HNO_3 \rightarrow Ca(NO_3)_2 + H_2O$
6. $Pb(NO_3)_2 \rightarrow PbO + NO_2 + O_2$
7. $MnO_2 + HCl \rightarrow MnCl_2 + H_2O + Cl_2$
8. $C_6H_{12}O_6 + O_2 \rightarrow CO_2 + H_2O$ + energy
9. $HNO_3 + Ca(OH)_2 \rightarrow Ca(NO_3)_2 + H_2O$

Q3.Case Based Questions:

A chemical reaction is a representation of chemical change in terms of symbols and formulae of reactants and products. There are various types of chemical reactions like combination, decomposition, displacement, double displacement, oxidation and reduction reactions. Reactions in which heat is released along with the formation of products are called exothermic chemical reactions. All combustion reactions are exothermic reactions.

(i) The massive force that pushes the rocket forward through space is generated due to the
(a) combination reaction (b) decomposition reaction
(c) displacement reaction (d) double displacement reaction

(ii) A white salt on heating decomposes to give brown fumes and yellow residue is left behind. The yellow residue left is of
(a) lead nitrate (b) nitrogen oxide (c) lead oxide (d) oxygen gas

(iii) Which of the following reactions represents a combination reaction?
(a) $CaO(s) + H_2O(l) \rightarrow Ca(OH)_2(aq)$ (b) $CaCO_3(s) \rightarrow CaO(s) + CO_2(g)$
(c) $Zn(s) + CuSO_4(aq) \rightarrow ZnSO_4(aq) + Cu(s)$ (d) $2FeSO_4(s) \rightarrow Fe_2O_3(s) + SO_2(g) + SO_3(g)$

(iv) Complete the following statements by choosing correct type of reaction for X and Y.
Statement 1: The heating of lead nitrate is an example of 'X' reaction.
Statement 2: The burning of magnesium is an example of 'Y' reaction.
(a)X-Combination, Y-Decomposition (b)X-Decomposition, Y-Combination
(c)X-Combination, Y-Displacement (d) X- Displacement, Y-Decomposition

Q4. Science practical file work: Write experiment-1 (a) ,1(b) and 2 from lab manual in your Science practical file.

Activity: Prepare a 3 D chart and model on SDG-6 by using waste materials. It should be working.

BIOLOGY

Do all the MCQ and Assertion Reason question from Ch 5 Life Processes in the Assignment book Pg no. 304 to 307.

Do the following questions in the Biology notebook

Q 1. Give reasons for the following:

a. Stomata of desert plants remain closed during daytime.

b. Pancreas acts both as endocrine and exocrine gland.

Q 2. What are villi? What are its functions?

Q 3. Draw a neat and well labelled diagram of human alimentary canal. Name and label the following:

(a) Part carrying the food to the stomach through peristaltic movements.

(b) Organ producing a substance responsible for emulsification of fats.

(c) Organ secreting trypsin enzyme.

Q 4. Every day, Ayush enjoys cold beverages, chocolates, and sweets. He has toothache. After each meal and after indulging in sweets, his science teacher instructed him to brush his teeth.

Q 5. Why doesn't lungs collapse even after forceful expiration?

Q 6. Bile juice does not contain any digestive enzymes, yet it is essential for digestion. Explain.

Q 7. Aaliya felt painful contraction of muscles in her legs while sleeping. As the frequency of these painful muscular contractions increased, she consulted a doctor. Doctor told her that these are muscular cramps and can be cured. What could be the reason of these cramps?

Case Based Questions:

Q 8. Heterotrophic nutrition is a mode of nutrition in which organisms obtain readymade organic food from outside sources. The organisms that depend upon outside sources for obtaining organic nutrients are called heterotrophs. Heterotrophic nutrition is of three types: saprophytic, parasitic and holozoic nutrition.

i. In which of the following groups of organism's food material is broken outside the bodyand absorbed?

(a) Mushroom, green plants, Amoeba

b) Yeast, mushroom, bread mould

(c)Paramecium, Amoeba, Cuscuta

(d) Cuscuta, lice, tapeworm

ii. Which of the following is a parasite?

(a) Taenia (b) Yeast (c) Amoeba (d) Earthworm

iii. Which of the following is an example ofsaprotroph?

(a) Grass b) Mushroom (c) Amoeba d) Paramecium

iv. Heterotrophic nutrition involves

(a) production of simple sugar from inorganic compounds

(b) utilisation of chemical energy to prepare food

(c) utilisation of energy obtained by plants

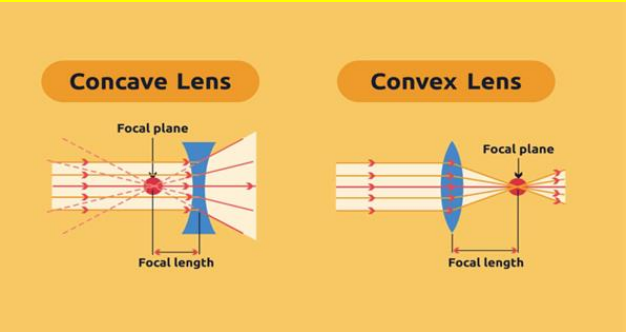
(d) all of these.

Q 9. Rohan carried out experiments on plants to understand the process of photosynthesis. Rohan observed that the leaves of the plant exposed to light for longer duration accumulated more starch. However, due to presence of pre-formed starch in the leaves, it was difficult to find the net productivity on a fixed exposure to light source. Therefore, it was necessary to obtain starch free leaves in the plant before starting the experiment.

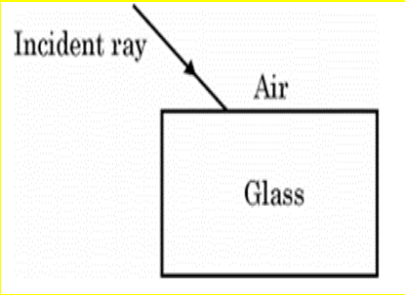
(i) After a period of illumination, the leaves were boiled in alcohol to make them colourless. Which of the following could be used to test the end product stored in the leaves?
(a) Cobalt chloride paper
(b) Litmus paper
(c) Iodine solution
(d) Copper sulphate solution
(ii) Some of the starch free leaves were coated with wax on both the surfaces. The plant was maintained under normal environmental conditions. At the end of the experiment, the wax coated leaves are likely to show _____.
(a) Accumulation of more water.
(b) Wilting of the wax-coated leaves.
(c) Increase in sucrose accumulation.
(d) Decrease in number of chloroplasts
(iii) Which of the following would help obtain starch free leaves in the plant?
(a) Expose the leaves to blue light for 48 hours before starting the experiment.
(b) Keep the plant in dark for about 48 hours before starting the experiment.
(c) Remove starch from the leaves by exosmosis, 48 hours before starting the experiment.
(d) Keep the leaves to red light for 48 hours before starting the experiment.
(iv) During the morning hours, using a fine blade, an incision was made to the leaves such that the phloem tissue was cut open. Analysis of the liquid oozing out was found to contain high amount of:
(a) Xylose (b) Ribose (c) Sucrose (d) Galactose

Q 10. Anita is suffering from a frequent stomach pain and vomiting. She went to the Doctor. The doctor asked her to go for an ultrasound. In the report, a stone was found in her gall bladder. Doctor asked her to remove the gall bladder by operation. But she was reluctant to go for the operation.
(i) The role played by gall bladder in human body is
(a) To store bile (b) To secrete bile (c) To emulsify fats (d) To digest fats
(ii) Which of the following statement is correct about bile?
(a) It helps in emulsification of fat.
(b) It helps in digestion of carbohydrates
(c) It helps in absorption of digested food.
(d) It helps in egestion of undigested food.
(iii) Which part of alimentary canal receives bile from the liver?
(a) Stomach (b) Small intestine (c) Large intestine (d) Oesophagus
(iv) What is the function of bile salt in the intestine?
(a) Activator of lipase (b) Emulsifier
(c) Co factor of cholesteryl esterase (d) Inhibitor of lipid absorption

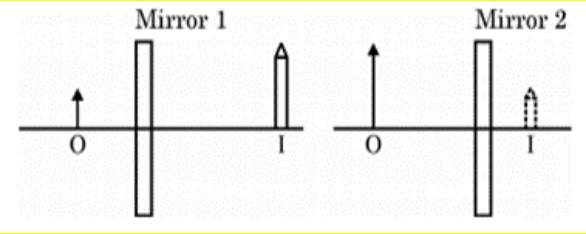
PHYSICS



Revise the chapter Light:Reflection and Refraction
Do all the MCQs ,Assertion-Reasoning questions and Case based questions from Ch light:reflection and refraction in the assignment booklet only.
Do the following questions in the Physics notebook 👍
Q1. When an object is placed at a distance of 36 cm from a convex lens ,an image of the same size as the object is formed.What will be the nature of the image formed when this object is placed at
10 cm from the lens? b. 20 cm from this lens?
Q2. State the Laws of Refraction of Light.Explain the term Absolute refractive index of a medium and write an expression to relate it with the speed of light in vacuum.
Q3. Size of image of a conceive lens of focal length 20 cm is observed to be reduced to one-third of its size.Find the distance of the object from the lens.
Q4. A fish under water is viewing obliquely a fisherman standing on the bank of a river.Does the man man look taller or shorter?Justify your answer with the help of a diagram.
Q5.(a) Draw and complete the following ray diagram on you answer sheet to show lateral displacement.



(b) Study the following diagrams and Identify mirror 1 and 2 and state 2 uses of each.



I= IMAGE, O=OBJECT

Q6.AB and CD, two spherical mirrors, form parts of a hollow spherical ball with its centre at O as shown in the diagram. If arc AB = arc CD what is the ratio of their focal lengths? State which of the two mirrors will always form virtual image of an object placed in front of it and why?
Q7.How far should an object be placed from a convex lens of focal length 20 cm to obtain its real image at a distance of 30cm from the lens?Determine the height of the image if the object is 4cm tall.
Case Based Questions:
Q8.The power of a lens is a measure of the degree of convergence or divergence of light rays falling on it.If the convex lens converges the beam more strongly by focussing them closer to the optical centre,it is said to have a greater power.Similarly,a concave lens diverging a lens more strongly is said to have a greater diverging power.
(a)On the basis of the passage,how is the power of a lens related to its focal length?
(b)State the unit of the power of a lens?Define it.
(c)A combination of lenses for a camera contains two converging lens of focal length 20 cm and 40cm and a diverging lens of focal length 50 cm.Find the power,focal length of this combination.
Q9.When the rays of light travels from one transparent medium to another, the path of light is deviated. This phenomena is called refraction of light. The bending of light depends on the optical density of medium through which the light pass.
(i) When light travels from air to glass, the ray of light bends
(a)towards the normal (b)away from the normal (c)anywhere (d)none
(ii) A ray of light passes from a medium A to another medium B. No bending of light occurs if the ray of light hits the boundary of medium B at an angle of
(a)0 degree (b)45 degree (c)90 degree (d)120 degree
(iii) When light passes from one medium to another, the frequency of light
(a)increases (b)decreases (c)remains same (d)none of these
(iv) When light passes from glass to water, the speed of light
(a)increases (b)decreases (c)remains same (d)first increases then decreases
Q10.Shyam participated in a group discussion in his inter school competition on the practical application of light and was very happy to win an award for his school. That very evening his father gave treat to celebrate Shyam's win. Shyam while sitting saw an image of a person sitting at his backside in his curved plate and could see that person's mobile drop in the flower bed. Person was not aware until Shyam went and informed him. He thanked Shyam for his clever move.
a)From which side of his plate Shyam observed the incident –
i)outward curved (ii)inward curved (iii)plane surface (iv) mirror
b)Part of plate from which Shyam observed the incident acted like a-
i)concave mirror (ii)convex mirror (iii)plane mirror (iv) lens
c)The nature of the size of the image formed in above situation is –
i)real, inverted and magnified (ii)same size , laterally inverted
(iii)virtual, erect and diminished (iv)real , inverted and diminished

SOCIAL SCIENCE

GENERAL INSTRUCTIONS

- **Read the holiday homework carefully.**
- **For Roller chart/Wall Magazine use good quality of sheet.**
- **Assignment work do carefully after reading the NCERT.**
- **Prepare Portion for Upcoming Periodic Test.**

MAP WORK

On a Political map of India name and locate:

Congress sessions:

- 1920 Calcutta
- 1920 Nagpur.
- 1927 Madras session

Satyagraha movements:

- Kheda
- Champaran.
- Ahmedabad mill workers

Jallianwala Bagh

Dandi march

PROJECT WORK

Every student has to compulsorily undertake one project on

Consumer Awareness

OR

Social Issues

OR

Sustainable Development

The marks will be allocated under the following heads:

SL.NO.	COMPONENTS	MARKS ALLOTTED
1.	INTRODUCTION/OVERVIEW	2
2.	VARIETY OF CONTENTS	3
3.	PRESENTATION	3
4.	CONCLUSION	1
5.	BIBLIOGRAPHY	1
6.	VIVA-VOCE	10
	TOTAL	**20**

INTRODUCTION TO FINANCIAL MARKETS

PROJECT WORK:-

SUGGESTED LIST OF PRACTICALS:-

a) Banks

b) Mutual funds

c) Stock exchange market

d) Clearing and settlements

f) Derivatives

g) Trading & trading memberships

Guidelines for Project Preparation:
The final project work should encompass chapters on:
a) Introduction,
b) Identification of core and advance issues,
c) Learning and understanding and
d) Observation during the project period.

ARTIFICIAL INTELLIGENCE

- Revise Chapter – 1 , 2 **PART A**
- Revise Chapter – 1 , 2 and complete all back exercise questions in **notebook from PART B**
- **Complete Assignment Ch-1 & Ch-2 from Part B.**

ACTIVITY BASED QUESTION

Make a PPT on Topic(Data Science,fertility of soil to grow more)

"How AI can help solving issues in achieving SDG-2"

INFORMATION TECHNOLOGY

- Revise Chapter – 1 , 2 , 3 from **PART A**
- Revise Chapter – 1 , 2 & complete all back exercise questions in **notebook from PART B**

Complete Assignment Ch-1 & Ch-2 from Part B.

ACTIVITY BASED QUESTION

Make a PPT on Topic(Data Science,fertility of soil to grow more)

"How AI can help solving issues in achieving SDG-2"

COMPUTER APPLICATION

Academic Work

- Revise Chapter – 1 , 2

Complete Assignment Ch-1 & Ch-2

PAINTING

- Prepare an animal model which you like it should be 3D and height should be more than 2.5 feet make it attractive as much you like.
- Make 2 folk art painting on A2 size sheet.

PORTION FOR PERIODIC TEST

ENGLISH

MCB (First Flight)
Unit-1
A Letter To God
Poem
Dust Of Snow
Fire & Ice
Unit-2
Nelson Mandela
Poem-A Tiger In The Zoo
Supplementary Reader (Footprints Without Feet)
A Triumph Of Surgery
The Thief's Story
Writing Skills
Letter To Editor
Grammar
Tenses
Modals
Comprehension Passage

HINDI

आवधिक परीक्षा का पाठ्यक्रम- **नेता जी का चश्मा ,सूरदास ,माता का आँचल ,बालगोबिन भगत**
व्याकरण -पद परिचय, वाक्य भेद
लेखन-अनुच्छेद लेखन,पत्र लेखन ,ईमेल लेखन
अपठित गद्यांश

MATHS

Chapter 1 Real Numbers
Chapter 2 Polynomials
Chapter 3 Pairs of linear equations in two variables
Chap 4: Quadratic Equations
Chap 5: Arithmetic Progression

SCIENCE

Physics: Ch-9: Light: Reflection & Refraction
Chemistry: Ch-1 Chemical Reactions and Equations
Biology: Ch 5. Life processes

SOCIAL SCIENCE

Learn and Revise
History

- Chapter 2: Nationalism in India

Geography

- Chapter 1: Resources and Development
  Chapter 2: Forest and Wildlife Resources

Political Science

- Chapter1: Power Sharing

Economics

- Chapter 1- Development
- Chapter-2 Sectors of Indian Economy

IFM

PORTION FOR PERIODIC TEST
Section-A
Ch-1 Communication Skills
Ch-2 Self Management Skills
Section-B
Ch-1 INVESTMENT BASICS
CH-2 PRIMARY MARKET

ARTIFICIAL INTELLIGENCE

Section-A
Ch-1 Communication Skills
Ch-2 Self Management Skills
Section-B
Ch-1 Introduction to A. I

INFORMATION TECHNOLOGY

Section-A
Ch-1 Communication Skills
Ch-2 Self Management Skills
Section-B
Ch-1 Advanced features of Word Processor

COMPUTER APPLICATION

- UNIT – 1 NETWORKING
- UNIT -2 HTML (INRODUCTION TO WEB PAGE DESIGNING USING HTML)

PAINTING

- Chapter 3- Tools
- Chapter 4- Ashoka lion
- capital (Mauryan Period