HOLIDAY HOMEWORK *ART & CRAFT*

1. One Landscape with water / acrylic colour on ivory sheet.

(Size minimum A4)

2. One creative Painting with acrylic colour on ivory sheet.

(Size minimum A4)

3. One craft work with waste material like old newspaper, clothes, plastic bottles and bags, waste wood and any other types of waste materials.

4. One painting on warli art with acrylic colour on ivory sheet. (Size minimum A4)

***BEST OF LUCK AND ENJOY THE HOLIDAY ***

CHAPTER-METALS AND NON-METALS
LEVEL-1
VERY SHORT ANSWER TYPE QUESTIONS(1 MARK EACH)

1. Name one metal and one nonmetal which exists in liquid state at room temperature.
2. Which gas is usually liberated when an acid reacts with a metal?
3. Name a nonmetal which is lustrous and metal which is non-lustrous.
4. Give an example of a metal which is best conductor of heat.
5. Why are metals Na and K Kept under Kerosene oil?
6. What is the difference in calcination and Roasting?
7. Which metal is used in amalgam?
8. Name two metals which exists in nature in native state or free state.

SHORT ANSWER TYPE QUESTIONS(2/3 MARKS EACH)

9. Give reason for the following-
   i) School bells are made up of metals   ii) Electrical wires are made up of copper.
10. Give reason for the following-
i)Metals replace hydrogen from dilute acids whereas non-metals do not.
     ii) Carbonate and sulphide ores are usually converted into oxides.
11. Write two observations that you will make when an iron nail is kept in an aqueous solution of
        copper   sulphate. Write the chemical reaction for this reaction.
12. Write the balanced equations for the reaction of:
 i) Aluminium when heated in air. Write the name of the product.
 ii) Iron with steam. Name the product obtained.
 iii) Calcium with water. Why does calcium start floating in water?
13. What is meant by rusting? With labeled diagrams, describe an activity to find out the conditions under
        which iron rusts.
14. Give reasons for the following observations:
 i) Ionic compounds in general have high melting and boiling points.
 ii) Highly reactive metals cannot be obtained from their oxides by heating them with carbon.
 iii) Copper vessels get a green coat when left exposed to air in the rainy season.
15. i) Show the formation of Na_2O by the transfer of electrons between the combining atoms.
   ii) Why are ionic compounds usually hard?
   iii) How is it that ionic compounds in the solid do so when in molten state?
16. i) What are amphoteric oxides? Choose the amphoteric oxides from the following oxides:
                        $Na_2O, ZnO, Al_2O_3, CO_2, H_2O$
   ii) Why is that non-metals do not display hydrogen from dilute acids?

LONGANSWER TYPE QUESTIONS (5MARKS EACH)

17. i) Carbon cannot be used as reducing agent to obtain Mg from MgO. Why?
ii) How is sodium obtained from molten sodium chloride? Give equation for the reaction.
   iii) How is copper obtained from its sulphide ore? Give equations of the reaction.
18. Write the names and symbols of two most reactive metals. Explain by drawing electronic structure how any
        one any one of two metals react with a halogen. State any four physical properties of the compound
        formed.
19. i) What is meant by metallurgy?
   ii) State two steps associated with extraction of copper from its ore.
   iii) How is impure copper purified by electrolytic refining? Draw a labelled diagram to illustrate it.
20. i) Give two methods to prevent the rusting of iron
   ii) Name the ores of the following: Mercury and Zinc

iii) Explain with the help of a diagram, hoe copper metal can be refined? Label the
important   arrangements in the experimental set up.
21.   With the help of a suitable example, explain how ionic compounds are formed. State any three general
properties of ionic compounds.

LEVEL-2
VERY SHORT ANSWER TYPE QUESTIONS (1 MARK EACH)
1. What is the colour of methyl orange in baking soda solution?
2. Name the metal which react with a very dilute HNO_3 to evolve hydrogen gas.
3. Why does not stain less steel get rusted easily?
4. What is cinnabar?
5. What are amphoteric oxides? Give an example.

SHORT ANSWER TYPE QUESTIONS(2/3MARKS EACH)

6. A metal 'X' acquires a green colour coating on its surface on its exposure to air.
   i) Identify the metal 'X' and name the process responsible for this change.
   ii) Name and write the chemical formula of the green coating formed on the metal.
   iii) List two important methods to prevent the process.
7.   An ore on heating in air produces sulpher dioxide. Which process would you suggest for its
concentration? Describe any two steps involved in the conversion of this concentrated ore into
related metal.
8. A student was given Mn, Zn, Fe, and Cu metals. Identify which of them
   i) will not display H_2 from dilute HCl.
   ii) will react only with steam to give $H_2(g)$.
   iii) will give H_2 with 5% HNO_3.
   Write the chemical reactions involved.
9. Compound X and aluminium are used to join railway tracks.
   i) Identify the compound X.
   ii) Name the reaction.
   iii) Write down its reaction.
10.   A metal A, which is used in thermite process, when heated with oxygen gives an oxide B, which
is amphoteric in nature? Identify A and B. write down the reactions of oxide B with HCl and NaOH.
11.   Gold is a very precious metal. Pure gold is very soft it is therefore not suitable for
Making jewellery. It is alloyed with either Silver or Copper to make it hard. But sometimes jewellers
mix a large quantity of copper and Silver in gold to earn more profit.
a) What precautions should you take while purchasing gold jewellery?
b) does Government insist on purchasing Hall Marked jewellery?

LONG ANSWER TYPE QUESTIONS (5MARKS EACH)

12. *i) In the formation between two atoms A and B, A loses two electron and B gains one electron.
       a) What is the nature of bond between A and B?
       b) Suggest the formula of the compound formed between A and B.
   ii) On similar lines explain the formation of $MgCl_2$ molecule.
   iii) Common salt conducts electricity only in the molten state.Why?
   iv) Why is melting point of NaCl high?
13.* A non-metal A which is the largest constituent of air, when heated with H_2 in 1:3 ratio in the
        presence of catalyst (Fe) gives a gas B. On heating with O_2, it gives an oxide C. If this oxide is
        passed into water in the presence of air, it gives an acid D which acts as a strong oxidizing agent.
   i) Identify A, B, C and D.
    ii) To which group of periodic table does this non-metal belong?

AUTUMN BREAK HOMEWORK
CLASS : X
SUBJECT : MATHEMATICS

GENERAL INSTRUCTIONS:

A) DO ALL THE QUESTIONS IN MATHS CLASS WORK NOTE BOOK.

B) COMPLETE MATHS PORTFOLIO.

C) COMPLETE YOUR MATHS ACTIVITY NOTEBOOK.

Real numbers

1. The HCF and LCM of two numbers are 9 and 90 respectively, if one number is 18, find the other.

2. Prove that $\sqrt{5}$ is irrational number .

3. Show that $7 - 3\sqrt{3}$ is an irrational number .

4. Find HCF of 96 and 404 by prime factorization and find the LCM also .

5. If HCF of 2 numbers is 12 and the product of these number is 1800 find the LCM .

Polynomials

6. Find the zeros and verify the relation between the zeros and the coefficient (i) $x^2 - 2x - 8$

   (ii) $4s^2 - 4s + 1$

   (iii) $t^2 - 15$

Quadratic Equation

7. Find the roots of the following quadratic equations:

 (i) $3x^2 - 5x + 2 = 0$

(ii) $x^2 + 4x + 5 = 0$

(iii) $2x^2 - 2\sqrt{2}\,x + 1 = 0$

(iv) $x^2 + x - 156 = 0$

8. For what value of k does $2x^2 + kx + 3 = 0$ have equal roots?

9. For what value of k does $(k-12)\,x^2 + 2(k-12)\,x + 2 = 0$ have equal roots?

10. Find the values of k ,so that quadratic equation have two equal roots $kx\,(x - 2) + 6 = 0$.

Arithmetic progression

11. The first term of an AP is -7 and the common difference 5, find its 18th term and general term.

12. Determine the AP whose 3rd term is 5 and the 7th term is 9.

13. How many terms of the AP : 24, 21, 18, . . . must be taken so that their sum is 78?

14. Find the 15 term of the AP 7,4,1,…………

15. The sum of first 10 multiple of 3 is ……….

Geometry

16. State and prove Basic Proportionality Theorem.

17. Prove that the length of the tangents drawn from an external point to a circle are equal

Coordinate geometry

18. Find the values of y for which the distance between the points $P(2, -3)$ and $Q(10, y)$ is 10 units.

19. The distance between $P(0,6)$ and $Q(0,-2)$ is …….

Probability

20. One card is drawn from a well-shuffled deck of 52 cards. Find the probability of getting:

(i) a king of red colour

(ii) a face card

(iii) a red face card

(iv) the jack of hearts

(v) a spade

(vi) the queen of diamonds

(vii) a black queen

(viii) a Jack a queen or a king

(ix) neither an ace nor a king

(x) a non-face card

(xi) a black king or a red queen

(xii) a black face card

21. From a well shuffled pack of 52 cards black aces and black queens are removed. From the remaining cards a card is drawn at random find the probability of drawing

(i) a king or a queen.

(ii) a red card

22. From a pack of 52 playing cards, Jacks, queens, kings and aces of red colour are removed. From the remaining a card is drawn at random. Find the probability that the card drawn is

(i) a black queen

(ii) a red card

(iii) a black Jack

23. All the three face cards of spade are removed from a well shuffled pack of 52 cards &card is drawn from the remaining pack. Find the probability of getting

a) a black face card

b) a queen of diamond

c) a spade

d) a black card

Mensuration

24. Find the area of a sector of a circle with radius 6 cm if angle of the sector is 60°

25. Find the area of a quadrant of a circle whose circumference is 22 cm

26. The length of the minute hand of a clock is 14 cm. Find the area swept by the minute hand in 5 minutes.

27. 2 cubes each of volume 64 cm³ are joined end to end. Find the surface area of the resulting cuboid.

28. A toy is in the form of a cone of radius 3.5 cm mounted on a hemisphere of the same radius. The total height of the toy is 15.5 cm. Find the total surface area of the toy.

STATISTICS

29. The following distribution shows the daily pocket allowance of children of a locality. The mean pocket allowance is ₹ 18. Find the missing frequency f.

Daily pocket allowances (in ₹)	No. of children
11 – 13	7
13 – 15	6
15 – 17	9
17 – 19	13
19 – 21	f
21 – 23	5
23 – 25	4

30. If the median of the distribution given below is 28.5, find the values of x and y.

Class-interval	Frequency
0 – 10	5
10 – 20	x
20 – 30	20
30 – 40	15
40 – 50	y
50 – 60	5
Total	60

COMPUTER HOME WORK CLASS 10th

Make a notes of following chapters:-

1. ICT Skills
2. Entrepreneurial skills
3. Green skills
4. Introduction to Artificial Intelligence
5. Neural Network
   Note :- Remembering the first chapter for both books.

1. रचना के आधार पर वाक्य की परिभाषा लिखिए। वाक्य के उदाहरण सहित भेद लिखिए ।

2. वाच्य की परिभाषा लिखकर उदाहरण सहित भेद भी लिखिए।

3. अलंकार की परिभाषा लिखिए। अनुप्रास,,यमक,उपमा,रूपक इनके उदाहरण सहित परिभाषा लिखिए।

4. हिंदी के दो कवियों के चित्र बनाकर जीवन परिचय लिखिए।

5. आपके मोहल्ले में एक महीने से दूषित पानी की आपूर्ति हो रही है जिसकी शिकायत करते दिल्ली जलबोर्ड के जल आपूर्ति अधिकारी को पत्र लिखिए। एवं अपने विद्यालय में खेलकूद की सामग्री मंगवाने हेतु प्राचार्य को पत्र लिखे।

6. नम्निन में से किसी एक विषय पर सौ शब्दों में अनुच्छेद लिखिए
   राजभाषा हिंदी की दशा, भारतीय किसान, जीना मुश्किल करती महंगाई

Kendriya Vidyalaya Jalalabad

Autumn break home work   Class-10th (Science)

Biology

I)DRAW AND PRACTICE   WELL LABELLED DIAGRAM Of FOLLOWING:

1) Human Digestive System 2) Respiratory system 3) Human heart 4) Double circulation system 5) Human brain 6) Neuron 6) Excretory system 7) Nephron 9) Male and female reproductive system.

II) Write the difference :

1) Holozoic and saprophytic nutrition

2)Pepsin and trypsin

3)Aerobic and aerobic respiration

4)Inspiration and Expiration

5) Artery and vein

6) BLood and lymph

7) sexual and asexual reproduction

8) Nastic and Trophic movement

9) plant hormone and animal hormone

10) self pollination and cross pollination

11) Gamete and zygote

II) Explain the monohybrid and dihybrid cross with help of examples.

Physics

1. **Solve NCERT Exercise questions and examples of Chapter – Light , Reflecftion and Refraction**

<u>SST HHW</u>

<u>Class-10</u>

1. Make a project file on Consumer Awareness or any Social Issues, as given by CBSE.
2. Complete map work of class 10, as given by CBSE in classwork notebook
3. Make 20 MCQ from every chapter that has been completed.
4. Learn the chapters for Pre-board exams and make self notes.
5. Write difficult words found in social science book in your notebook