8;0yGURU AMAR DASS PUBLIC SCHOOL, MODEL TOWN, JALANDHAR

HOLIDAYS' HOME WORK, JUNE 2024

CLASS - X

ENGLISH

1. Read all the chapters thoroughly (done so far)
2. Complete the grammar worksheets and comprehension passages being sent in your class groups. (Take the printout and then solve it)
3. Make an ART INTEGRATED PROJECT (Chapter - A Letter To God) (Page Limit – Minimum 8 to 10 pages and Maximum 15 to 18 pages)
4. Complete your notebooks and revise all the work done so far.

PUNJABI

- ਮੁਹਾਵਰੇ - ਰਾ, ੱਧ ਲਿਖੋ ਅਤੇ ਯਾਦ ਕਰੋ।
- ਲੇਖ ਰਚਨਾ -

1. ਚੋਣਾਂ ਵਿੱਚ ਆਮ ਨਾਗਰਿਕ ਦੀ ਭੂਮਿਕਾ
2. ਪਾਣੀ ਦੀ ਮਹੱਤਤਾ ਤੇ ਸੰਭਾਲ
3. ਵਿਗਿਆਪਨ ਕਲਾ

- Activity –

1. ਕਵੀ ਸੁਰਜੀਤ ਪਾਤਰ ਦੀ ਕੋਈ ਕਵਿਤਾ 1/4 sheet ਤੇ ਲਿਖੋ।
2. 'ਪੰਜਾਬੀ ਮਾਂ ਬੋਲੀ' ਨਾਲ ਸੰਬੰਧਤ ਸਲੋਗਨ 1/4 sheet ਤੇ ਲਿਖੋ।

- ਜਮਾਤ ਵਿੱਚ ਕਰਵਾਏ ਗਏ ਕੰਮ ਦੀ ਦੁਹਰਾਈ ਕਰੋ ਅਤੇ ਕਾਪੀਆਂ ਪੂਰੀਆਂ ਕਰੋ।

HINDI

1.स्पर्श पाठ्यपुस्तक के करवाए गए पाठों की दोहराई कीजिए और अपनी कार्य पुस्तिकाएँ पूरी कीजिए ।

2. अनुच्छेद लिखें-

(i) जीवन में नैतिक मूल्यों की आवश्यकता

(ii) प्रकृति से खिलवाड़ न करें

3.'कड़क शक्ति ड्रिंक ' के लिए एक विज्ञापन बनाइए ।

4. आप विद्यालय के सचिव है और विद्यालय में होली मेला आयोजित करना चाहते हैं । इस संबंध में लगभग 60 शब्दों में सूचना लिखिए।

5. समास और उसके भेद, मुहावरे, वाक्य परिवर्तन, पदबंध की दोहराई कीजिए।

MATHEMATICS

1. The length, breadth and height of a room are 8 m 25 cm, 6 m 75 cm and 4 m 50 cm, respectively. Determine the longest rod which can measure the three dimensions of the room exactly.
   Ans.75cm
2. Three sets of English, Hindi and Mathematics books have to be stacked in such a way that all the books are stored topic wise and the height of each stack is the same. The number of English books is 96, the number of Hindi books is 240 and the number of Mathematics books is 336. Assuming that the books are of the same thickness, determine the number of stacks of English, Hindi and Mathematics books. Ans. 2,5,7
3. In a seminar, the number of participants in Hindi, English and Mathematics are 60, 84 and 108 respectively. Find the minimum number of rooms required if in each room the same number of participants are to be seated and all of them being in the same subject.
   Ans.21
4. Find the largest number which exactly divides 280 and 1245 leaving remainders 4 and 3, respectively.
   Ans.138
5. The HCF of two numbers is 145 and their LCM is 2175. If one number is 725, find the other no.
   Ans.435
6. The HCF of two number is 16 and their product is 3072 . find their LCM. Ans.192
7. Determine the greatest number of 6 digits exactly divisible by 24, 15 and 36
   Ans.999720
8. Find this smallest number which leaves remainder 8 and 12 when divided by 28 and 32 respectively. Ans.204
9. Find the zeroes of $\sqrt{3}x^2 + 10x + 7\sqrt{3}$ Ans. $-\sqrt{3}, \frac{-7}{\sqrt{3}}$
10. If the product of the zeroes of the polynomiai ax² - 6x - 6 is 4, then find the value of a. Also find the sum of zeroes of the polynomial. Ans. a = -3/2, Sum= -4
11. If one zero of the quadratic polynomial (x) = 4x² - 8kx + 8x - 9 is negative of other, than find the zeroes of kx²+ 3kx + 2. Ans. -2,-1
12. If one zero of the polynomial (k + 1)x² - 5x + 5 is multiplicative inverse of other, find the zeroes of kx² - 3kx + 9 . Where K is constant. Ans. 3/2,3/2
13. Find a quad polynomial whose one zero is 5 and product of zeroes is 30. Ans. x²-11x +30
14. Show that 1/2 and - 3/2 are the zeroes of the polynomial 4x² + 4x - 3 and verify the relationship between zeroes and co-efficient of the polynomial.
15. Find the value of K so that the following system of equations has no solution
    3x-y-5=0, 6x-2y+k=0. Ans.K≠ -10
16. For which values of p does the pair of equation given below has unique solution?
    4x+py +8=0 and 2x + 2y + 2 = 0 Ans. P≠4
17. Determine K for which the system of equations has infinite solutions:
    4x + y = 3 and 8x + 2y = 5k. Ans.6/5
18. Prove that √2 + √5 is an irrational no.
19. If α, β are zeroes of the polynomial f(x) = x² - 5x + K such that $\alpha - \beta$ = 1, Find K. Ans.6.

20. If α, β are zeroes of quadratic polynomial P(s) = $3s^2 - 6s + 4$ Find value of

$$\frac{\alpha}{\beta}+\frac{\beta}{\alpha}+2\left(\frac{1}{\alpha}+\frac{1}{\beta}\right)+3\alpha\beta$$ Ans. 8

21. Solve the following system of linear equations graphically: x-y=1 and 2x+y=8. Shade the area bounded by these two lines and y axis.Also determine this area. Ans.(3,2) Ar.=13.5sq.units
22. Find the value of k for which the following system of linear equations has infinite solutions. x +(k+1)y =5 and (k+1)x +9y =8k-1. Ans. K=2
23. A person can row downstream 20 km in 2 hours and upstream 4 km in 2 hours. Find the speed of boat in still water and that of the current. Ans.(6,4)
24. A boat covers 32 km upstream and 36 km downstream in 7 hours. Also it covers 40km upstream and 48 km downstream in 9 hours. Find the speed of the boat in still water and that of the current. Ans. (10, 2)
25. There are two examination rooms A and B. If 10 candidates are sent from A to B the number of students in each room is same. If 20 candidates are sent from B to A the number of students in A is double the number of students in B. find the number of students in each room. Ans.100,80

NOTE: DO ALL THE EXAMPLES FROM NCERT BOOK AND ABOVE ASSIGNMENT ON SEPARATE NOTEBOOK.

SOCIAL SCIENCE

- History /Civics

1- Prepare on A4 Sheets Movement led under the leadership of Mahatma Gandhi

2) Flow chart on the working of Federalism

3) Different political parties of India with their symbols on A 4 sheet

5) Ideology of BJP and Aap party on A 4 sheet

- Geography homework:

1. Revise the chapter covered in Class thoroughly.

2. Practice Map: India-soil India- states

- Economics- Revise the syllabus done in class.

SCIENCE

SOLVE ALL THE ASSIGNMENTS (physics , chemistry, biology) IN YOUR CLASS NOTEBOOKS

PHYSICS

Numericals

1. When a 4V battery is connected across an unknown resistor there is a current of 100 mA in the circuit. The value of the resistance of the resister is:
   a) 4 Ω
   b) 40 Ω
   c) 400 Ω
   d) 0.4 Ω
2. a) Calculate the energy transferred when 2 A current flows through a 10 Ω resistor for 30 minutes.
   b) Calculate the amount of charge that would flow in one hour through the element of an electric iron drawing a current of 0.4 amps
3. Two resistances of 4 Ω and 8 Ω are connected in parallel. What would be the combined resistance of the system?
4. Two identical resistors each of resistance 2 Ohm are connected in turn (1) in series (2) in parallel to a battery of 12 V. Calculate the ratio of power consumed in two cases.
5. (i) A 100 W electric bulb is connected to 220 V mains power supply. Calculate the strength of the electric current passing through the bulb.
   (ii) If the same bulb is taken to U.S.A where the main power supply is 110 V, how much electric current will pass through the bulb when connected to mains?
6. Calculate the resistance of 2 km long copper wire of radius 2 mm. (Resistivity of copper = 1.72×10^{-8})
7. A wire of length 3 m and area of cross-section 1.7×10^{-6} m^2 has a resistance 3×10^{-2} ohm.
   a. What is the formula for resistivity of the wire and what is the unit of it
   b. Calculate the resistivity of the wire
8. Two electric lamps of 100W and 25W respectively are connected in parallel to a supply voltage of 200V. Calculate the total current flowing through the circuit.
9. A cylindrical conductor of length 1 and uniform area of cross section A has resistance R. Another conductor of the same material and resistance R has length 21. What will be its area of cross section?
10. A current of 5A passes through a 2ohm resistor for 30 minutes. Calculate the electrical energy transferred.

CHEMISTRY

Write the symbols and valancy table given below in your notebooks **FIVE TIMES** and learn it.

Cation	Symbol	Valency
MONOVALENT		
Hydrogen ion	H^+	1+
Ammonium ion	NH_4^+	1+
Lithium ion	Li^+	1+
Sodium ion	Na^+	1+
Silver ion	Ag^+	1+
Potassium ion	K^+	1+
DIVALENT		
Magnesium ion	Mg^{2+}	2+
Zinc ion	Zn^{2+}	2+
Calcium ion	Ca^{2+}	2+
Barium ion	Ba^{2+}	2+

Cation	Symbol	Valency
TRIVALENT		
Aluminium ion	Al^{3+}	3+
VARIABLE		
Copper (I) ion (cuprous ion)	Cu^+	1+
Copper (II) ion (cupric ion)	Cu^{2+}	2+
Mercury (I) ion (mercurous ion)	Hg^+	1+
Mercury (II) ion (mercuric ion)	Hg^{2+}	2+
Iron (II) ion (ferrous ion)	Fe^{2+}	2+
Iron (III) ion (ferric ion)	Fe^{3+}	3+

Table 4.3 Valencies of some anions

Anion	Symbol	Valency
MONOVALENT		
Hydride ion	H^-	1–
Chloride ion	Cl^-	1–
Bromide ion	Br^-	1–
Iodide ion	I^-	1–
Fluoride ion	F^-	1–
Nitrite ion	NO_2^-	1–
Nitrate ion	NO_3^-	1–
Bicarbonate ion (hydrogen carbonate)	HCO_3^-	1–
Hydroxide ion	OH^-	1–
Acetate ion	CH_3COO^-	1–

Anion	Symbol	Valency
DIVALENT		
Sulphate ion	SO_4^{2-}	2–
Sulphite ion	SO_3^{2-}	2–
Sulphide ion	S^{2-}	2–
Oxide ion	O^{2-}	2–
Carbonate ion	CO_3^{2-}	2–
TRIVALENT		
Phosphate ion	PO_4^{3-}	3–

CLASS X, CHEMISTRY ASSIGNMENT
CH – 1 CHEMICAL REACTIONS AND EQUATIONS

1. Write one disadvantage of oxidation in our daily life.

2. Name the group of chemical substances used to prevent oxidation.

3. What is the substance reduced in a redox reaction called?

4. Write the four changes which help us to determine whether a chemical reaction has taken place.

5. Astha has been collecting silver coins and copper coins. One day she observed a black coating on silver coins and a green coating on copper coins . Which chemical phenomenon is responsible for these coatings? Write the chemical name and formula of black and green coatings.

6. Name the law which is applicable while balancing chemical equation.

7. What type of reaction is represented by the digestion of food in our body?

8. When a compound of lead is heated , brown coloured fumes evolved from it.

a. Name the compound. b. Write the balanced chemical equation.

c. Write the chemical name of brown coloured fumes.

d. Name the type of reaction. e. Is this reaction an exothermic or endothermic?

9. $ASO_4 + B$ ----------> $BSO_4 + A$

a. Name this reaction. b. Which one is more reactive element and why?

10. Write the chemical equation and the type of reaction for each of the following:

a. Silver chloride is exposed to sunlight.

b. Manganese dioxide reacts with hydrochloric acid.

c. Zinc rod is dipped in copper sulphate solution.

d. Solution of sodium sulphate and barium chloride are mixed.

e. Calcium carbonate is heated.

11. Name the substances oxidized and reduced and also identify the oxidizing agents and reducing agents in the following reactions:

a. $3MnO_2 + 4Al$ ----------> $3Mn + 2Al_2O_3$

b. $Fe_2O_3 + 3CO$ ----------> $2Fe + 3CO_2$

c. $2Al + 6HCl$ ----------> $2AlCl_3 + 3H_2$

d. $H_2S + Cl_2$ ----------> $2HCl + S$

12. Balance the following equations:

a. $NH_3 + O_2$ ----------> $NO + H_2O$

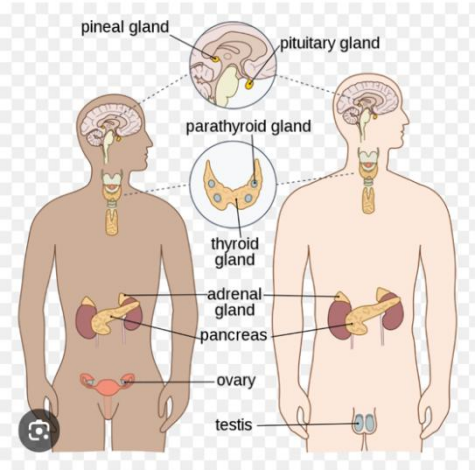
b. HNO_3 ----------> $H_2O + NO_2 + O_2$

c. $Al + Fe_2O_3$ ----------> $Al_2O_3 + Fe$

BIOLOGY:

1. Draw all the diagrams of of the topics LIFE PROCESSES & CONTROL AND COORDINATION

2. **Diagram given below is the endocrine system in human and showing different types of glands with their location . You have to make a table of these glands and hormones secreted by these glands also mention at least two functions of each**



REVISE THE SYLLABUS DONE TILL DATE

INFORMATION TECHNOLOGY

- Make an A4 chart on any 1 topic: Mobile Computing, Data Science, Artificial Intelligence, 3D Graphics, Computer Security, Cryptography, Robotics.
- Make a table that given below, write formulas to calculate the Total of each column, Total Sales, Average Sales and also create any type of chart.

	A	B	C	D	E	F	G	H
1	XYZ COMPANY SALES PERFORMANCE							
2								
3								
4	SALESPERSON	ANNUAL TARGET	QTR1	QTR2	QTR3	QTR4	TOTAL SALES	AVERAGE SALES
5								
6	ALBERT	750	148	256	133	154	X	
7	MICHAEL	650	187	143	258	143	X	
8	CARL	800	233	200	216	152	X	
9	GEORGE	700	256	145	136	259	X	
10	LUCY	1,000	249	212	215	124	X	
11								
12	TOTAL	X	X	X	X	X	X	

- Make a Digital Poster on any 1 topic in Ms Word and apply proper formatting.

  - Artificial Intelligence
  - Robotics
  - Cyber security
  - Internet of things
  - Data Science
  - 5G Network Technology