DAV PUBLIC SCHOOL, IFFCO, PARADEEP
SUMMER HOLIDAY HOMEWORK, 2022-23
STD- X

SL. NO	SUBJECT	H.W DETAILS
1	English	Q.1. Prepare a comparative study between " Fire and Ice " and " Dust of Snow". Q.2. Watch the news daily and write five positive news in a separate notebook. Q.3. Read at least 5 short stories of Ruskin Bond and write a review on them. Q.4. Prepare a tense chart and write 100 verbs along with their V2 and V3 forms. Q.5. Make a diary entry of your daily activities in 50 words everyday. Q.6. Prepare at least five extra questions from each of the chapters taught in the class and write along with answers.
2	Hindi	**अनुच्छेद लेखन:- (100-150 शब्दों में लिखिए)** **(1)संतोष धन** संकेत बिंदु:-संतोष का अर्थ,महत्त्व,इसे अपनाना आवश्यक क्यों,संतोष में ही सुख का वास **(2)साहस ही सफलता है** संकेत बिंदु:-अर्थ,सफलता से तुलना,मानव की उपलब्धियाँ इसी की देन,साहस जैसे गुण को अपनाने का आह्वान **(3)पराधीनता:एक अभिशाप** संकेत बिंदु:-अर्थ,पराधीनता:एक अभिशाप कैसे?स्वाधीन जीवन का महत्त्व,स्वाधीनता में ही सच्चा सुख **निम्नलिखित मुहावरों का अर्थ लिखकर अपने वाक्यों में प्रयोग कीजिए:-** (1)ऐरा-गैरा नत्थू खैरा (2)हँसी-खेल होना (3)जान तोड़ना (4)आँख फोड़ना (5)घाव पर नमक छिड़कना (6)दिमाग होना (7)नाम-निशान मिटाना (8)अंधे के हाथ बटेर लग जाना (9)दीन-दुनिया दोनों से जाना (10)अंधा-चोट निशाना पड़ना (11)दाँतों पसीना आना (12)आटे-दाल का भाव मालूम होना (13)पापड़ बेलना (14)चुल्लू पानी देने वाला (15)सूक्ति-बाण चलाना

		i) ନିମ୍ନ ରଚନା ଗୁଡିକ ଲେଖ ।
		
		କ) ଦେଶପ୍ରେମ
		
		    a) ଦେଶ ପ୍ରେମର ଅର୍ଥ (ନିଜ ଦେଶ , ଜାତି , ଭାଷା , ସଂସ୍କୃତି , ପରମ୍ପରା କୁ ଭଲ ପାଇବା)
		
		    b) ଭାରତର ବିଶିଷ୍ଟ ଦେଶପ୍ରେମୀ
		
		    c) ଉପକାରିତା
		
		    d) ଅପକାରିତା
		
		    e) ଶେଷକଥା (ନିଜସ୍ୱ ମତାମତ)
		
		ଖ) ମହାପୁରୁଷଙ୍କ ଜୀବନୀ ପାଠର ଉପଯୋଗୀତା
		
		    a) ଜୀବନୀ କଣ (ଜୀବନ ବ୍ୟାପୀ ଘଟଣା ବଳି ର ଲିଖିତ ରୂପ)
		
		    b) ଜୀବନୀ ପାଠର ମହତ୍ତ୍ୱ (ମହାପୁରୁଷ ମାନଙ୍କ ତ୍ୟାଗ ପୂର୍ଣ୍ଣ ଜୀବନ)
		
		    c) ଜୀବନୀ ପାଠର ପ୍ରଭାବ (ସାଧାରଣ ମଣିଷ ଉପରେ ପ୍ରଭାବ)
		
		    d) ଜୀବନୀ ପାଠର ବିଧି (କେବଳ ପାଠ ନ କରି ଶିକ୍ଷଣୀୟ ବିଷୟ ଲେଖି ରଖିବା ଓ ଜୀବନରେ ପାଳନ କରିବା)
		
		    e) ଶେଷକଥା (ନିଜସ୍ୱ ମତାମତ)
		
		ଗ) ପ୍ରାକୃତିକ ବିପର୍ଯ୍ୟୟ
		
		    a) ପ୍ରାକୃତିକ ବିପର୍ଯ୍ୟୟ କଣ (ପ୍ରକୃତିକୁ ମଣିଷ ନଷ୍ଟ କରୁଛି ତେଣୁ ପ୍ରକୃତି ମଧ ବେଳେ ବେଳେ ତାର କରାଳ ରୂପ ଦେଖାଇ ଥାଏ ।
		
		    b) ବନ୍ୟା ଓ ବାତ୍ୟା , ମରୁଡି , ଘରପୋଡି
		
		    c) ପ୍ରାକୃତିକ ବିପର୍ଯ୍ୟୟ ରୁ ବଞ୍ଚିବାର ଉପାୟ (ବୃକ୍ଷ ରୋପଣ , ପ୍ରକୃତି ସୁରକ୍ଷା)
		
		    d) ସରକାରୀ ପଦକ୍ଷେପ
		
		    e) ଶେଷକଥା (ନିଜସ୍ୱ ମତାମତ)
		
		ଘ) ସାମାଜିକ କୁସଂସ୍କାର
		
		    a) ଭାରତୀୟ ସମାଜରେ ପରମ୍ପରା (ସବୁ ପରମ୍ପରା ଯୁକ୍ତି ସଙ୍ଗତ ନୁହେଁ , କେତେକ କୁସଂସ୍କାର ଗ୍ରସ୍ତ)
		
		    b) କେତେକ କୁସଂସ୍କାର – ନରବଳି , ବାଲ୍ୟ ବିବାହ , ହଇଜା , ବସନ୍ତ – ଦେବୀ , ଜାତିଭେଦ , ଶୁଭାଶୁଭ ବିଚାର , ବ୍ରାହ୍ମଣ ସମାଜର ଆଧୂପତ୍ୟ , ଗୁଣିଗାରେଡି
		
		    c) କାରଣ – ଅଜ୍ଞାନତା , ଦାରିଦ୍ର୍ୟତା
		
		    d) ଶିକ୍ଷାର ଆବଶ୍ୟକତା
		
		    e) ଶେଷକଥା (ନିଜସ୍ୱ ମତାମତ)
		
		ଙ) ବନ ମହୋସ୍ବ
		
		    a) ପ୍ରାଚୀନ ସଭ୍ୟତା ରେ ବୃକ୍ଷ ପୂଜା
		
		    b) ମାନବ ସଭ୍ୟତାର ସୁରକ୍ଷା କବଚ – ବୃକ୍ଷ
		
		    c) ବନ ସୁରକ୍ଷିତ ନ ରହିଲେ ହେଉଥିବା ପ୍ରଭାବ
		
		    d) ସରକାରୀ ପଦକ୍ଷେପ
		
		    e) ଶେଷକଥା
		
		Update all CW / HW copies .
		
		Learn all question answers

3	**Odia**	

4	**Sanskrit**	- Chapter-4&5 book question & answer must complete. - Recite Chapter-1 all shloka & make a video. - Give 10 examples of each Samasa. - Write biography of any legend person in Sanskrit language. Minimum 10 lines. Draw & colour a picture of Sri Ram & Lava kusha on the chart paper. Related to chapter-Sishu Laalanam
5	**Maths**	✓ Update all the CWs and HWs of NCERT text book exercises and Exemplar Problems . ✓ Solve the following problems in your HW copy: 1. What is the HCF of smallest prime number and smallest composite number? 2. Determine the values of p and q so that the prime factorization of 2520 is expressible as $2^3 \times 3^p \times q \times 7$. 3. Prove that Check whether 15^n can end with the digit zero for any natural number n. 4. Two tanks contain 504L and 735 L of milk respectively. Find the maximum capacity of the container which can measure the milk of either tank, in exact number of times. 5. Ravi ,Ajit and sima drive around a circular sports field. They taks 16 min, 20 min and 30 min respectively to complete one round. If all of them start at 7.10 am, from the same point and go in the same direction, then when will they meet again? 6. Prove that $\sqrt{2}$ is irrational. 7. If one zero of $2x^2 - 3x+k$ is reciprocal of each other, then find the value of k. 8. Find the zeros of the polynomial $x^2 - (\sqrt{3}+1)x+\sqrt{3}$, and verify the relationship between the zeros and the coefficients. 9. The sum and the product of zeros of the polynomial $ax^2 - 5x+ c$ is equal to 10 each, find the values of a and c. 10. If x=1 is a common root of the equations $ax^2+ax+3=0$ and $x^2+x+b=0$, then find ab. 11. Write the polynomial whose product and sum of whose zeros are -9/2 and -3/2 respectively. 12. Write a polynomial whose zeros are $(2 + \sqrt{3})$ and $(2 - \sqrt{3})$ respectively. 13. If one of the zeros of the quadratic polynomial $(a-1)x^2 + ax+1$ is - 3 , then find the value of a. 14. If α, β are the zeros of the polynomial $x^2 - 1$, then find a polynomial whose zeros are $\dfrac{2\alpha}{\beta}$ and $\dfrac{2\beta}{\alpha}$ 15. Find the value of c for which the pair of equations $cx - y = 2$ and

6x – 2y = 3 will have no solutions .

16. For what value of k the lines given by : 3x + 2ky = 2 and 2x + 5y + 1 = 0 are parallel.

17. Solve the pair of linear equations: 21x + 47y = 110 ; 47x + 21y = 162
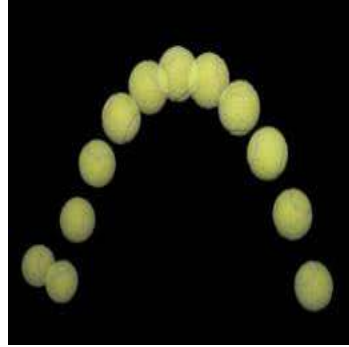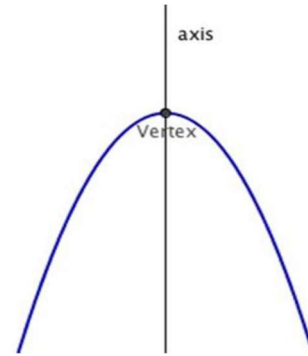
18. CASE STUDY-I:

Figure-1   Figure-2

Figure-3

When a tennis player hits a ball the ball moves up to a certain height , then it comes down. The path of tennis ball is shown in figure-1 and figure-2.This path is parabolic in shape.If we plot a graph by taking time in x-axis and height of ball in y-axis, we get a parabolic graph.
A parabola is the graph that results from $p(x)=ax^2+bx+c$

Based on your understanding of the above case study, answer all the five questions below:
i) Graph of a quadratic polynomial is a
   a) straight line   b) circle   c) parabola   d) ellipse
ii) If the path of the tennis ball is represented graphically, the number of zeros of a polynomial p(x) is equal to the number of points where the graph of the polynomial intersect
       a) Origin   b) x-axis   c) y-axis   d) none of these
iii) The Zeros of the polynomial $P(x) = x^2 - x - 6$ are _____
       a) -3 b) 3 and -2 c) -3 and 2   d) None of the above
iv) The quadratic polynomial whose sum of the zeroes is 0 and product of zeros is -1, is _____
   a) $P(x) = x^2 - 1$ b) $P(x) = x^2 + 1$
   c) $P(x) = x^2$ d) $P(x) = $ None of the above
v) The number of zeroes that polynomial f(x) = $(x - 2)^2 + 4$ can have is:
       a) 1   b) 2   c) 0   d) 3
19. CASE STUDY-II:

A School had organized a language seminar for the students. The number of participants for Hindi, English and Odia languages are 60, 84 and 108 respectively. It was decided that minimum number of rooms will be used for the seminar and in each room same number of participants are to be accommodated and all of them should belong to the same subject.

Based on your understanding of the above case study, answer all the five questions below:

i) Find the maximum number of students to be accommodated in each room.

    a)12   b)16   c)20   d)24

ii) How many minimum rooms will be required for the participants of Hindi language?

    a)4   b)5   c)6   d)7

iii) How many minimum rooms will be required for the participants of Odia and English language?

    a)12   b)15   c)16   d)11

iv) How many minimum rooms will be required for the participants of Odia and Hindi language?

    a)16   b) 12   c)14   d)15

v) Find the minimum number of rooms that will be required for all the participants of the seminar?

    a)17   b)19   c)21   d)24

20. Case Study-III

Teachers and students of class X of a school had gone to Nandan Kannan for study tour. After visiting different places of Nandan Kannan, lastly, they visited bird's sanctuary and deer park. Rohan is a clever boy and keen observer. He put the question to his friends " How many birds are there and how many deer are there (at particular time) in Nandan Kannan?" Rahul's friend, Nishith gave the correct answer as follows:

'Nishith answered that total animals have 1000 eyes and 1400 legs.'

Based on your understanding of the above case study, answer all the five questions below:

i) If x and y be the number of birds and deer respectively, what is the equation of total number of eyes?

    a)$x + y = 1000$ b)$x + y = 500$

    c)$x - y = 1000$ d)$x - y = 500$

ii) What is the equation of total number of legs?

    a)$2x + y = 70$ b)$x + 2y = 500$

    c)$x + 2y = 700$ d)$2x - y = 500$

iii) How many birds are there in the Zoo?

    a)1000   b) 5000   c) 300   d) 200

iv) How many deer are there in the Zoo?

    a)500   b)200   c)300   d)700

		v) Total number of animals (birds and deer) is a)1000 b)700 c)500 d)300
6	**Science**	**PHYSICS** Write answers of all these questions in home work copy. **LEVEL-1** 1. Differentiate between real and virtual images. 2. Write two uses of convex lens and concave lens. 3. Define magnification of spherical mirrors. 4. State the laws of refraction of light. 5. What is the line perpendicular to the reflecting surface at the point of incidence known as? 6. What is the phenomenon of bouncing back of light in the same medium known as? 7. Is air a transparent or an opaque medium for light? 8. What is the speed of light in vacuum? **LEVEL-2** 9. An object is placed at a distance of 20 cm from a concave mirror of focal length 15 cm. Find the position and nature of the image. 10. Show that the refractive index of medium 2 with respect to medium 1 can be expressed as the ratio of their absolute refractive indices. 11. An object 5 cm in length is placed at a distance of 30 cm in front of a convex mirror Page 5 of 6 of radius of curvature 40 cm. Find the position of the image, its nature and size. 12. Explain with the help of a diagram, why a pencil partially immersed in water appears bent. 13. What is meant by power of a lens? Name and define the S.I unit of power. 14. A 5cm tall object is placed perpendicular to the principal axis of a convex lens of focal length 20cm. The distance of the object from the lens is 30cm. Find the nature, position, and size of the image. Also find its magnification. 1 5. Define the following terms in connection with spherical mirrors: (i) Radius of curvature (ii) Principal focus (iii) Principal axis 16. A thin lens has a focal length of -50cm. What is the power of the lens and its nature? 17. Why is convex lens called converging lens and concave lens a diverging lens ? **LEVEL-3** 18. Define the following terms in connection with spherical lenses: (i) centre of curvature (ii) radius of curvature (iii) principal focus (iv) optical centre (v) aperture 19. By drawing ray diagram, explain the formation of image when an object is placed on the principal axis of a concave mirrors at the following positions: (i) At infinity (ii) Beyond centre of curvature (iii) Between the centre of

curvature and the focus (iv) Between the pole and the focus (v) At the principal focus

20. Deepak's mom is finding difficult to cook in the kitchen as there was power cut, and she was complaining about it to Deepak. He immediately took a plane mirror from his shelf made it stand against a wall such that sun's rays were focused into the kitchen due to the reflection of the mirror. There was some lighting and his mother was able to finish her work. What are the characteristics of the image formed by a plane mirror?

BIOLOGY

[1] Prepare a power point presentation of the chapter life processes. (MAXIMUM 20 SLIDES)

Topic: (Any one)
- ❖ Nutrition In Plants & Animal
- ❖ Breathing & respiration in Plants & Animals

[2] Update your CW copy and go through all questions and answers written in it.

[3] ANSWER THE FOLLOWING QUESTIONS IN YOUR **HW** COPY.

[1]Why do herbivores have longer, small intestine than carnivore ?

[2]Write the balanced chemical equation for the process of photosynthesis. How photosynthesis occur in desert plants.

[3]In single celled organisms diffusion is sufficient to meet all their requirements of food, exchange of gases or removal of wastes but it is not in case of multicellular organisms. Explain the reason for this difference.

[4]Draw a neat labelled diagram of human gastrointestinal tract.

[5]Explain the process of nutrition in Amoeba. (with diagram)

[6]How do guard cells regulate the opening and closing of the stomata ?

[7]State the role of digestive enzymes, hydrochloric acid and villi in human digestive system.

[8]Explain the process of nutrition in Paramecium.

[9]Draw a neat labelled diagram of open and closed stomata.

[10]Draw a neat labelled diagram of cross section of a leaf.

CHEMISTRY
CHAPTER NAME: CHEMICAL REACTIONS AND EQUATIONS
SYLLABUS:

Chemical reactions: Chemical equation, Balanced chemical equation, implications of a balanced chemical equation, types of chemical reactions: combination, decomposition, displacement, double displacement, precipitation, endothermic exothermic reactions, oxidation and reduction.

Q.1 What is the observation when quicklime is added to water filled in a bucket? Write the chemical reaction involved.

Q.2 What is the basis to balance a chemical equation?

Q.3 What is double displacement reaction? Give three examples with chemical reactions and the colour of the products formed.

Q.4 Give an example each for thermal decomposition and photochemical decomposition reaction. Write relevant balanced chemical equation also.

Q.5 Write the name of some observation with the help of us we can determine whether a chemical reaction has taken place or not?

Q.6 A Magnesium ribbon is burnt in Oxygen to give a white compound X accompanied by emission of light. If the burning ribbon is now placed in an atmosphere of nitrogen, It continues to burn and forms a compound Y.
(a) Write the chemical formulae of X and Y?
(b) Write a balanced chemical equation, when X is dissolved in water.

Q.7 What happens when Zn granules are treated are treated with dilute solution of H_2SO_4, HCl, HNO_3, NaCl, and NaOH ? Which type of reactions are they?
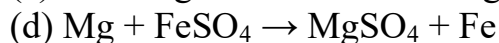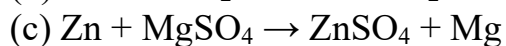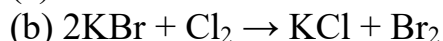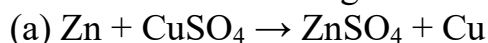
Q.8 What are the products formed when $FeSO_4$ is heated? What is the colour change observed?

Q.9 A brown colour gas is produced when $Pb(NO_3)_2$ is heated. What is that gas ? Which type of chemical reaction is it ? Write the balanced chemical reaction.

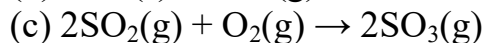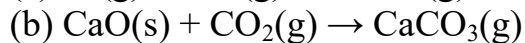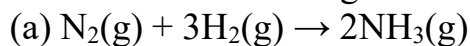Q.10 What changes occur when AgBr(s) is exposed to sunlight? Write one of its use. Which type of chemical reaction is it?

MCQ QUESTIONS

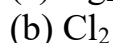1 Which of the following reactions will not take place?
   (a) $Zn + CuSO_4 \rightarrow ZnSO_4 + Cu$
   (b) $2KBr + Cl_2 \rightarrow KCl + Br_2$
   (c) $Zn + MgSO_4 \rightarrow ZnSO_4 + Mg$
   (d) $Mg + FeSO_4 \rightarrow MgSO_4 + Fe$

2 Which of the following involves combination of two elements?
   (a) $N_2(g) + 3H_2(g) \rightarrow 2NH_3(g)$
   (b) $CaO(s) + CO_2(g) \rightarrow CaCO_3(g)$
   (c) $2SO_2(g) + O_2(g) \rightarrow 2SO_3(g)$
   (d) $NH_3(g) + HCl(g) \rightarrow NH_4Cl(s)$

3 In the reaction $Hg_2Cl_2 + Cl_2 \rightarrow 2HgCl_2$
   The reducing agent is
   (a) Hg_2Cl_2
   (b) Cl_2

(c) $HgCl_2$
(d) Both Cl_2 and $HgCl_2$

4 The formula of Ammonium phosphate is
(a) NH_4PO_4 (b) $(NH_4)_2PO_4$
(c) $(NH_4)_3PO_4$ (d) $(NH_4)_3(PO_4)_2$

5 Which of the following is a thermal decomposition reaction ?
(a) $2H_2O \rightarrow 2H_2 + O_2$
(b) $2AgCl \rightarrow 2Ag + Cl_2$
(c) $ZnCO_3 \rightarrow ZnO + CO_2$
(d) $H_2(g) + Cl_2(g) \rightarrow 2HCl(g)$

6 Barium chloride on reacting with ammonium sulphate forms barium sulphate
and ammonium chloride. Which of the following correctly represents the type
of the reaction involved ?
(i) Displacement reaction
(ii) Precipitation reaction
(iii) Combination reaction
(iv) Double displacement reaction
(a) (i) only (b) (ii) only
(c) (iv) only (d) (ii) and (iv)

7 Electrolysis of water is a decomposition reaction. The molar ratio of hydrogen
and oxygen gases liberated during electrolysis of water is
(a) 1 : 1 (b) 2 : 1
(c) 4 : 1 (d) 1 : 2

| 7 | Soc. Sc | ❖ **Geography** –
 1. Imagine yourself as one of the head of states attending the international earth summit at Rio de Janeiro, Brazil in 1992. Discuss some measure taken by your country to combat environmental damage, poverty and disease.
 2. On an outline map of India, label various soil types as given in Page No. – 9 of Chapter – 1.
 ❖ **History** –
 1. Define the different stages of unification of Great Britain.
 2. Why Balkan area become a zone of conflict. Explain.
 ❖ **Political Science** –
 1. Explain the various steps taken to setup Belgian model of government.
 2. Explain the various causes of throwing out of Kashmir Pandit from the land of Kashmir.
 ❖ **Economics** –
 Prepare a PROJECT on the topic |

		"Consumer Awareness"
		 OR
		 "Social Issues"
		 OR
		 "Sustainable Development"
		 [Points to be included in the project are
		 • Acknowledgement
		 • Preface/objective of the project
		 • Index
		 • Introduction about topic
		 • Explanation of the topic (through data, pictures,etc.)
		  (Explanation should be of minimum 3 to 4 pages)
		 • Suggestive Measures
		 • Conclusion
		 • Bibliography
		  Learn all the chapters completed.

8	**IT**	**CH – DIGITAL DOCUMENTATION (ADVANCED)** Q1. What are Styles ?. What are the advantages of using styles . Q2. Give any four styles supported by OpenOffice.org . Q3. How can we create our own styles .

N.B:

✓ Maintain index in your CW and HW copy.

✓ Draw margin line in your CW and HW copy.

✓ Do page numbering in all copies.

Its SUMMER TIME again. Time to strengthen your family bond, sharing joy and sorrow. Use your holiday home work as an opportunity to spend quality time together. Let your child take the lead and use his/ her imagination, creativity and knowledge to do the assigned work. The role of the parent is to be a facilitator and guide to sheer the child in the right direction. Take good care of your health and hygiene.

WE WISH YOU TONS OF HAPPINESS, JOY AND FUN WHILE YOU ARE ON VACATION.
MAINTAIN SOCIAL DISTANCING AND STAY SAFE .

Supervisor   **Coordinator**   **Principal**