## OM PUBLIC SCHOOL, GOHANA HOLIDAY'S HOMEWORK (25-26)

#### CLASS - X

#### **ENGLISH**

1. Do CA 3-8 and PA 1-5 of Module 1 from BBC Compacta

2.Module 2

i. Official letters- CA-9, 10, PA-9, 10

ii. Editor letters- CA-12, PA-12, HA-11

iii. Letter to RWA- CA-13, PA-13

iv) Letter to Principal- CA-15,16 ,PA-15

3. Read newspaper every day. Cut and Paste 10 articles from an English daily. Write 10 vocabulary words & their meaning from each article.

Walking with your eyes closed

A song for tomorrow

About yourself in which nothing is true

Your mother's perfume

The feeling of getting lost in a book

Criteria-

Form- Free verse, Sonnet, ballad , dramatic poetry.

Also describe any 3 poetic devices used by you in the poem.

5. Read the book, 'The Lighting Thief' by Rick Riordan' and write 2-3 pages review of the book in your Holiday's Homework Notebook.

6. Art Integrated Project:-

Write the stories' His first flight and The Black Aeroplane' as a graphic novel of 10-15 pages and draw any 5 scenes from the story.

### <mark>हिंदी</mark>

1 'नेताजी का चश्मा' एवं 'बालगोबिन भगत' पाठ से 20-20 वस्त्निष्ठ प्रश्न लिखिए।

2 पाठ 1 'माता का अंचल' से 50 कठिन शब्द लिखें।

3 10 सुलेख लिखें। सुलेख लिखते समय इस बात का विशेष ध्यान रखें कि उनमें वर्तनी संबंधी अशुद्धियाँ नहीं होनी चाहिए।

4 15-15 सरल संयुक्त एवं मिश्र वाक्य लिखिए।

5 तुलसीदास का चित्र चिपकाकर उनका जीवन परिचय चार्ट पर लिखें।

6 'क्षितिज' गद्य खंड के पाठ 1 व 2 के प्रश्न उत्तर याद करें।

7' क्षितिज' पद्य खंड के पाठ एक एवं दो के प्रश्न उत्तर याद करें

8 'कृतिका' पुस्तक का पाठ 1 याद करें।

#### SOCIAL SCIENCE

Note: Make a separate notebook for this homework.

Handwriting must be neat and clean.

Assignment -Based on reading skills.

**Reading skills** 

#### History

Ch.1The Rise of Nationalism in Europe

Civics

Ch.1 Power Sharing

2 Federalism

Geography

Ch.1Resources and development

Ch.2 Forest and Wildlife

#### Economics

Ch.1 Development

Project Work:

Prepare a project file with following details:

1. The total length of the project report should not be more than 8-10 written pages A-4size sheet.

2. The project report should be hand written and credit will be awarded to original drawings, illustrations and creative use of eco – friendly materials.

use of eco – friendly materials.

3. The project report should be developed and presented in this order:

a) List of contents with page numbers. b) Certificate page

c) Chapters with relevant headings. d) Summary and conclusion based on findings

e) Bibliography: should have the title, author, publisher and if a website the name of the website with the specific website link which has been used.

TOPIC:: Consumer Rights OR Social Issues OR Sustainable

Development

#### Thinking skills –

What's wrong if the majority community rules? If Sinhalas don't rule in Srilanka, where else will they rule?

Write a paragraph on your notion of what should India do, or achieve, to become a developed country.

Imagine, if the oil supply gets exhausted one day ,how would this affect our life style?

Imagine you are a weaver who saw the events as they unfolded. Write a report on what you saw.

#### Map Skills:

Do practice of all Indian states and capitals with the locations on Indian political map .

#### <mark>MATHS</mark>

Chapter no. 1

- 1. Two tankers contains 850 litres and 680 liters of petrol respectively. Find the maximum capacity of a container which can measure the petrol of either tanker in exact number of times.
- 2. Find the HCF and LCM of 4052 and 420 by prime factorisation method.
- 3. Show that  $(\sqrt{3} + \sqrt{2})^2$  is an irrational number.
- 4. Three bells toll at intervals of 12 minutes, 15 minutes and 18 minutes respectively. If they start tolling together, after what time will they next toll together?
- 5. Show that 9<sup>n</sup> can not end with the digit 0 for any natural number n.
- 6. Show that reciprocal of  $3 + 2\sqrt{2}$  is an irrational number.
- 7. Find HCF and LCM of 378,180 and 420 by prime factorisation method. Is HCF × LCM of three numbers equal to the product of the three numbers?
- 8. The LCM of two numbers is 14 times their HCF. The sum of HCF and LCM is 600. If one number is 280, then find the other number.
- 9. Two numbers are in the ratio 2 : 3 and their LCM is 180. What is the HCF of these numbers?
- 10. Find the largest number which on dividing 1251, 9377 and 15628 leaves remainder 1,2 and 3 respectively. Chapter no. - 2
- 11. If  $\alpha$ ,  $\beta$  are zeros of the polynomial  $x^2 + x 2$  then find the value of  $\alpha/\beta + \beta/\alpha$ .
- 12. If  $\alpha$ ,  $\beta$  are zeros of the polynomial  $ax^2 + bx + c$ , find the value of  $1/\alpha^2 + 1/\beta^2$ .
- 13. If zeros of the polynomial  $x^2 + 4x + 2a$  are  $\alpha$  and  $2/\alpha$ , then find the value of a.
- 14. Find the zeros of the quadratic polynomial  $7y^2 11y/3 2/3$  and verify the relation between zeros and the coefficients.
- 15. If one zero of the polynomial  $3x^2 8x + 2k + 1$  is seven times the other, find the value of k.
- 16. If  $\alpha$ ,  $\beta$  are zeros of the polynomial  $x^2$  5x + 4 then find the value of  $1/\alpha + 1/\beta 2\alpha\beta$ .
- 17. Quadratic polynomial  $2x^2 3x + 1$  has zeros as  $\alpha$  and  $\beta$ . Now form a quadratic polynomial whose zeros are  $3\alpha$  and  $3\beta$ .
- 18. Find the zeros of the polynomial  $\sqrt{3x^2}$  11x + 6 $\sqrt{3}$  and verify the relation between the zeros and the coefficients.
- 19. If  $\alpha$ ,  $\beta$  are zeros of the polynomial  $3x^2 + 5x + k$  such that  $\alpha^2 + \beta^2 + \alpha\beta = 19/9$ , then find the value of k.
- 20. Find the zeros of the quadratic polynomial and verify the relation between the zeros and the coefficients :  $x^2 (2a + b)x + 2ab$ .
- 21. If the sum of squares of the zeros of the quadratic polynomial  $x^2 8x + k$  be 40, find k.
- 22. If  $\alpha$ , $\beta$  are zeros of the polynomial  $2x^2 + 11x + 5$ , then find (i)  $\alpha^4 + \beta^4$  (ii)  $1/\alpha + 1/\beta 2\alpha\beta$ . Chapter no. - 3
- 23. Draw the graphs of the pair of equations x+2y=5 and 2x-3y= 4. Also find the points where the lines meet the x axis.

- 24. 4 chairs and 3 tables cost rs. 2100 and 5 chairs and 2 tables cost rs. 1750. Find the cost of one chair and one table respectively.
- 25. Solve for x and y: 6(ax+by) = 3a+2b , 6(bx-ay) = 3b-2a
- 26. The area of a rectangle reduces by 160 m<sup>2</sup> if its length is increased by 5m and breadth is decreased by 4 m. However, if length is decreased by 10 m and breadth is increased by 2 m, then it's area is decreased by 100 m<sup>2</sup>. Find the dimensions of the rectangle.
- 27. At a certain time in a zoo, the number of heads and the number of legs of tiger and peacocks were counted and it was found that there were 47 heads and 152 legs. Find the number of tigers and peacocks in the zoo.
- 28. Find the value of m and n so that the following pair of linear equations have infinite number of solutions : (2m-1)x + 3y = 5 and 3x + (n-1)y = 2
- 29. For what values of p and q will the following linear equations have infinite number of solutions? 4x+5y=2 and (2p+7q)x + (p+8q)y = 2q-p+1
- 30. A two digit number is equal to 7 times the sum of its digits. The number formed by reversing it's digits is less than the original number by 18. Find the original number.
- 31. Places A and B are 80 km apart from each other on a highway. A car starts from A and another from B at the same time. If they move in same direction they meet in 8 hours and if they move in opposite directions they meet in 1 hr 20 minutes. Find speeds of the cars.
- 32. For what value of k will the pair of equations have no solution?

a. 3x+y= 1 and (2k-1)x+(k-1)y = 2k+1

- 33. The sum of numerator and denominator of a fraction is 12. If 1 is added to both the numerator and denominator the fraction becomes 3/4, find the fraction.
- 34. If x=2/3 and x=-3 are roots of the equation  $ax^2+7x+b=0$ , find the values of a and b.

#### Chapter no : 14

35. Calculate the mean and mode of the following data:

Age(in yrs)	5-15	15-25	25-35	35-45	45-55	55-65
Frequency	6	11	21	23	14	5

36. Find the median of the data :

Class - int.	118-126	127-135	136-144	145-153	154-162	163-171	172-180
Frequency	3	5	9	12	5	4	2

37. If the median of the data is 28.5, find the values of x and y.

Class int :	0-10	10-20	20-30	30-40	40-50	50-60	Total

Frequency	5	х	20	15	У	5	60

38. Find the mean and median of the following data :

Class int	0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80
Freq.	7	14	13	12	20	11	15	08

Chapter 14

39. A die is thrown once. Find the probability of getting:

a prime number. b) a number lying between 2 and 6. c) an odd number

40. 12 defective pens are accidentally mixed with 132 good pens. One pen is taken out at random. Find the probability that the pen taken out is a good one.

41. The probability of guessing the correct answer to a certain question is x/6. If the probability of not guessing the correct answer to this question is 2/3, find the value of x.

42. An integer is chosen at random between 1 and 100. Find the probability that is

Divisible by 8 b) a perfect square c) a perfect cube d) not divisible by 7 e) a prime number. f) a two digit number g) a number between 35 and 64.

43. A bag contains 15 white and some black balls. If the probability of drawing a black ball from the bag is twice that of drawing a white ball, find the number of black balls in the bag.

### **SCIENCE**

1. To read and learn the following chapters from NCERT text book, Reference book and practice the questions from NCERT exemplar. (MCQ, Short answers and long answers questions) (Chapter 1, 5, 9 &10)

Download the previous year science board exam question papers along with their marking scheme and <u>understand</u> the method of writing answers according to word limits and the mark distribution for short and long answers questions.
You have to submit at least 4 question papers prints along with their marking scheme. No need to write anything from these papers in notebook.

3. To write following experiments in lab manual according to following format. For the subparts of the experiments, you have to follow the same pattern as given below.

L.H.S (Blank Page)	R.H.S
1. Aim	1. Aim
2. Diagram, if any	2. Material Required
3. Observation Table	3. Procedure
4. Result	4. Observations
	5. Precautions, if any
	6. Result
	7. Conclusion

LIST OF EXPERIMENTS

- 1. Studying the properties of acids and bases (HCl & NaOH) on the basis of their reaction with
- a) Litmus solution (Blue/Red)

b) Zinc metal

c) Solid sodium carbonate

#### 2. Performing and observing the following reactions and classifying them into:

- A. Combination reaction
- B. Decomposition reaction
- C. Displacement reaction
- D. Double displacement reaction
- (i) Action of water on quicklime
- (ii) Action of heat on ferrous sulphate crystals
- (iii) Iron nails kept in copper sulphate solution
- (iv) Reaction between sodium sulphate and barium chloride solutions
- 3. Determination of the focal length of:
- i) Concave mirror
- ii) Convex lens
- by obtaining the image of a distant object.

4. Experimentally show that carbon dioxide is given out during respiration.

5. Tracing the path of a ray of light passing through a rectangular glass slab for different angles of incidence. Measure the angle of incidence, angle of refraction, angle of emergence and interpret the result.

6. Tracing the path of the rays of light through a glass prism.

7. Preparing a temporary mount of a leaf peel to show stomata.

8. Study of the following properties of acetic acid (ethanoic acid):

i) Odour

- ii) solubility in water
- iii) effect on litmus
- iv) reaction with Sodium Hydrogen Carbonate

9. Study of the comparative cleaning capacity of a sample of soap in soft and hard water.

10. Identification of the different parts of an embryo of a dicot seed (Pea, gram or red kidney bean).

4. TO PREPARE AN ASSIGNMENT ON THE FOLLOWING TOPIC AS PER YOUR CLASS ROLL NUMBER. If your class roll no is

4, then you have to prepare assignment written in front of the roll number 4 in following table i.e. Nutrition in amoeba. While writing the assignment in file, you have to add new ideas, concept, uses other than we studied in class. Try to be creative while preparing assignment. (Use transparent folder/file to submit assignment)

ROLL NO	TOPIC FOR ASSIGNMENT
1.	Balanced chemical equation
2.	How we can identify a chemical reaction? ( you have to write change in color, change in odour etc)
3.	Reactivity series and Displacement Reactions with examples
4.	Nutrition in amoeba

5.	oxidation and reduction with examples from daily life
6.	Reflection of light by curved surfaces
7.	Laws of refraction and refraction with examples
8.	Nutrition in human being
9.	Autotrophic nutrition
10.	Respiration in plants
11.	Power of a lens, lens formula and magnification
12.	Electrolysis of Water
13.	Respiration in animals
14.	Experiment to demonstrate sunlight is essential for photosynthesis
15.	Experiment to demonstrate chlorophyll is essential for photosynthesis
16.	Redox reactions and its applications in daily life
17.	Reactivity series and Displacement reactions with examples
18.	Image formation by Concave mirror and lens
19.	New sign convention for spherical mirrors and spherical lenses
20.	defects of vision and their corrections
21.	Image formation by convex mirror and lens
22.	Dispersion of light and its examples from daily life.
23.	Scattering of light
24.	Structure and function of chloroplast
25.	defects of vision and their corrections
26.	Image formation by convex mirror and lens
27.	Human excretory system
28.	Experiment to demonstrate sunlight is essential for photosynthesis
29.	Transportation in plants
30.	Transportation in human being-human heart
31.	Redox reactions and its applications in daily life
32.	Double circulation in human Being
33.	Power of a lens and Combination of lenses
34.	Human Respiratory System
35.	Nutrition in Plants
36.	Types of chemical reaction
37.	Corrosion and its prevention
38.	Rancidity and Its method of prevention
39.	Decomposition reactions, its types and its applications
40.	Aerobic and Anaerobic respiration and its examples
41.	Dispersion of light and its examples from daily life.
42.	Human digestive system
43.	Experiment to demonstrate sunlight is essential for photosynthesis
44.	defects of vision and their corrections

5. Write and learn the formula of the following compounds.

S.N	Name chemical	Chemical
	compound	Formulas
1	sulphuric acid	$H_2SO_4$
2	zinc sulphate	$ZnSO_4$
3	magnesium oxide	MgO
4	ferric oxide	Fe <sub>3</sub> O <sub>4</sub>
5	ethyl alcohol	$C_2H_5OH$
6	glucose	$C_6H_{12}O_6$
7	calcium hydroxide	$Ca(OH)_2$
8	calcium oxide	CaO
9	carbon dioxide	CO <sub>2</sub>
10	ferrous sulphate	FeSO <sub>4</sub>
11	sulphur dioxide	$SO_2$
12	sulphur tri-oxide	$SO_3$
13	lead nitrate	$Pb(NO_3)_2$
14	lead oxide	PbO
15	nitrogen dioxide	NO <sub>2</sub>
16	silver chloride	AgCl
17	Silver bromide	AgBr
18	barium hydroxide	$Ba(OH)_2$
19	ammonium chloride	NH <sub>4</sub> Cl
20	barium chloride	BaCl <sub>2</sub>
21	ammonium hydroxide	NH <sub>4</sub> OH
22	copper(II) sulphate	CuSO <sub>4</sub>
23	copper chloride	CuCl <sub>2</sub>
24	lead chloride	PbCl <sub>2</sub>
25	sodium sulphate	$Na_2SO_4$

## I.T

1. Prepare a project on Computer Database (5-6 pages). Note-Project report must be hand written.

# Some points to remember

- \* Drink plenty of juice and water to avoid dehydration.
- \* Make hand washing and hygiene a part of your routine.

\* Holiday Homework is a part of subject enrichment and will be assessed on the basis of creativity and efforts of the students.

\* It's the perfect time to enhance your speaking skills and vocabulary by conversing in English with your family and siblings.

Reading is essential for those who seek to rise above the ordinary.

\* Spend your quality time reading purposeful books.

\* A beautiful handwriting makes a good impression. Practice one page of English and Hindi handwriting daily. Schedule

your time for activities so that there is no piling up of homework for the last moment.

\* Holiday homework should be your authentic creative work.

# HAPPY SUMMER HOLIDAYS