THE SD VIDYA SCHOOL, NOIDA

CLASS X

HOLIDAY HOME WORK

SESSION 2022-23

Dear students,

Learning is the beginning of wealth.

Learning is the beginning of health.

Learning is the beginning of spirituality.

Searching and learning is where the miracle process all begins.

………………Jim Rohn

We do not wear the Board exam marks on our sleeves? Right. But …. they do signify a simple thing: it quantifies the level of sincerity and sense of responsibility of a student as per the level of the complexity of the subjects each one studies. This sense of sincerity and responsibility should begin from the time the student steps in X.

This summer vacation the Holiday Homework so designed by the mentors of the school is a medium for you all to achieve the motto of balance between studies and recreation.

ENGLISH

Assignment 1:

Art Integrated English Project

Topic: Tiger in a Zoo vs Tiger in a Jungle

1. Make a **Project File** showcasing the topic stated above.
    1. Title
    2. Certificate
    3. Acknowledgement
    4. Index
    5. Introduction to the topic

6. Certificate of Acknowledgement
7. Elucidate the plight of the Tiger in a zoo (creativity)
8. Showcase the condition of tigers in the forests of Arunachal Pradesh/Meghalaya
9. Description
10. Creative work if any
11. Bibliography/ References

i). Describe the poor condition of tigers in the zoo – how they feel, what they desire, elaborate the poetic devices used in the poem

ii) Write about the author- his main works, the theme of his poetry

iii) Do a comparative study of the tigers kept in a cage and those in the jungle

iv) Write and portray the tigers in the forests of Meghalaya and Arunachal Pradesh

ENGLISH

Assignment 2 : To be done in the English Language Note book.

1. Tourism being one of the biggest and fastest- growing industries globally, affects the economic, socio-cultural, environmental and educational resources of nations. Improving 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.

2. You are Mr.Malik, the coordinator of the ABC Public School. Write a letter to place a bulk order for school uniform to M/S Sinha Garments.

3. You are Somita Roy, the librarian of ABC Public School, New Delhi. Write a letter to the Unique Book Co., New Delhi, complaining about the poor quality of books supplied to your library.

SOCIAL SCIENCE

Project Work

- Consumer Awareness (Roll No. 1 to 13)
- Social Issues (Roll No. 14 to27)
- Sustainable Development (Roll No. 28 to 41)

Objective: The overall objective of the project work is to help students gain an insight and pragmatic understanding of the theme and see all the Social Science disciplines from interdisciplinary perspective. It should also help in enhancing the Life Skills of the students

ASSIGNMENT SHEET

Political Science

Chapter- 1 Power Sharing

1) Name the country where a majority community forces its dominance over other and refuse its dominance over other and refuses to share power.

 2) Name any two countries with which Belgium share borders.

 3) A part from the central and the state government, which is the third type of government practiced in Belgium?

4) What is meant by the system of checks and balances?

 5) Which city was chosen as the headquarters of the European Union?

6) Why did civil war break out in Sri Lanka? List the results of the Civil War.

7) "Power Sharing is the very spirit of democracy." justify the statement.

8) What are the advantages enjoyed by Sinhala Community in Sri Lanka?

 9) How is the political System in Belgium innovative and different from the other countries of the world? Explain any three points.

10) Describe the ways in which power can be shared among different Social groups.

11)Describe any three demands of the Sri Lanka Tamils. How did they Struggle for their demonads?

12)Explain the difference between horizontal power sharing and vertical power sharing

SUBJECT-HISTORY

CHAPTER-1

THE RISE OF NATIONALISM IN EUROPE

1.What was the major change that occurred in the political and constitutional scenario due to the French Revolution in Europe?

2. What was the main aim of the French revolutionaries?

3. Name the Treaty of 1832 that recognised Greece as an independent nation.

4. Name the event that mobilised nationalist feelings among the educated elite across Europe in 1830-1848?

5. Who was proclaimed German Emperor in a ceremony held at Versailles in January 1871?

6. What did Liberal Nationalism stand for? Explain any four ideas of Liberal Nationalists in the economic sphere.

7. Explain any three causes of conflict in the 'Balkan area' after 1871.

8. Name the states offering homage to the Statue of Liberty.

9. Explain any four provisions of the Napoleon Civil Code of 1804.

10. Describe any three steps taken by the French revolutionaries to create a sense of collective identity among the French people.

11. Examine the role of women in nationalist struggles of Europe.

12. Why were the years of 1830s of great hardship in Europe? Explain any five reasons.

SUBJECT-SCIENCE

Project of all the Science subjects - Physics, Chemistry and Biology should follow the following format:

1. Title of the Project
2. Certificate
3. Acknowledgement
4. Index
5. Introduction of the Topic
6. Description
7. Creative work if any
8. Bibliography/ References

Project should be done on light coloured A-4 size sheet.

Roll No 1 to 13 – will do Physics project.

Roll No 14 to 27- will do Chemistry project

Roll No 28 to 41- will do Biology Project

All assignment sheets should be solved by each child.

PHYSICS

TOPIC- SOLAR ENERGY

i) Introduction to Solar Energy

ii) Compare between temperature difference, of Uttar Pradesh and Meghalaya for making solar panels, obtained by sunlight.

iii) Make figure of solar panel sample (use sheet, paper etc.)

iv) Attachments (Sample of Solar panel)

Reference link: (Introduction)

https://en.wikipedia.org/wiki/Solar_energy

Reference link: (temperature of uttar Pradesh for solar energy)

solarwithyash.com/solar-in-uttar-pradesh..

Reference link: (temperature of Meghalaya for solar energy)

https://www.worlddata.info/asia/india/climate-meghalaya.php
https://www.jetsor.in/solar-policy-for-meghalaya

Reference link: (electricity using solar panels)

https://youtu.be/EnYjlsGXugo

CHEMISTRY

TOPIC – PHYSICAL AND CHEMICAL CHANGE

i) Introduction to physical and chemical change. Write characteristics features of chemical change with examples.

ii) Mix primary colours to form secondary colours on a sheet of paper and categorize it as physical or chemical change.

iii) Find the natural colours used by people of Meghalaya to dye Eri silk and learn the process of dyeing.

iv) Use natural colour (turmeric/ onion peel/) to dye a piece of cloth with tie & dye technology and categorize dyeing as a physical or a chemical change.

v) Attachments

Reference link: (Natural colours used as dye)

https://www.youtube.com/watch?v=ZbX95pectgE&feature=youtu.be

Reference link: (Tie and Dye process)
https://www.youtube.com/watch?v=ARLKsR0XzxM&feature=youtu.be

Reference link: Natural colours used by people of Meghalaya to dye Eri silk

https://www.muezart.com/pages/eri-silk-most-sustainable-fabric

BIOLOGY

TOPIC -NUTRITION

  I.   Introduction to the topic of Nutrition
  II.   Write the various steps involved in this process.
  III.   Describe any two traditional dishes of either Arunachal Pradesh/Meghalaya.
  IV.   Mention the Nutritional value of the ingredients used.
  V.   Make a collage of various dishes of any mentioned state you choose.

Reference link:
https://onlinelibrary.wiley.com/doi/full/10.1111/mcn.12557#:~:text=Nutritional%20status%20for%20the%20state,children%20under%205%20with%20anaemia.
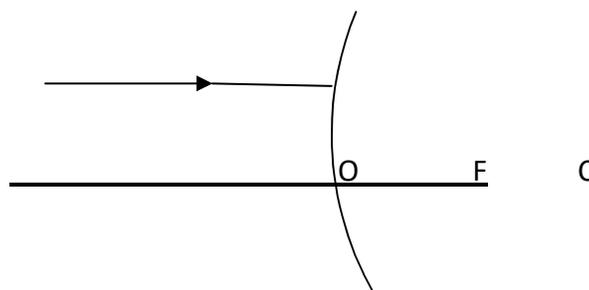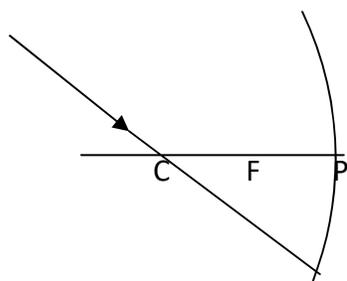
ASSIGNMENT
PHYSICS
CHAPTER: LIGHT-REFLECTION AND REFRACTION

1. What is the speed of light in vacuum?
2. What is a mirror?
3. What is the focal length of a plane mirror?
4. Differentiate between real and virtual image.
5. What type of image is formed on a cinema screen?
6. A concave mirror is a part of sphere of radius 40 cm. What is the focal length of the mirror?

7. Magnification of a mirror is +2/3. What type of mirror is it?
8. Complete the following diagrams:-

9. Magnification of a mirror is '—1'. What type of mirror is it? What is the position of object and image? Give the nature of image.
10. Name the type of mirror used:-

(i)   as a reflector in search light   (iii) by the dentist
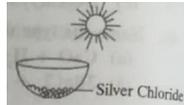(ii) as side view mirror in vehicles.   (iv) as a shaving mirror

CHEMISTRY
CHAPTER – CHEMICAL REACTIONS AND EQUATIONS

Choose the correct answer:
1. Which of the following is not a physical change?
    (a) Boiling of water to give water vapor
    (b) Melting of ice to give water
    (c) Dissolution of salt in water
    (d) Combustion of Liquefied Petroleum Gas (LPG)
2. The following reaction is an example of a $4NH_3$ (g) + $5O_2$ (g) → $4NO$(g) + $6H_2O$(g) (i) displacement reaction (ii) combination reaction (iii) redox reaction (iv) neutralisation reaction
    (a) (i) and (iv)
    (b) (ii) and (iii)
    (c) (i) and (iii) (d) (iii) and (iv)
3. Which of the following statements about the given reaction are correct? $3Fe(s)$ + $4H_2O(g)$ → Fe_3O_4 (s) + $4H_2$ (g) (i) Iron metal is getting oxidised (ii) Water is getting reduced (iii) Water is acting as reducing agent (iv) Water is acting as oxidising agent
    (a) (i), (ii) and (iii)
    (b) (iii) and (iv)
    (c) (i), (ii) and (iv)
    (d) (ii) and (iv)
4. Which of the following are exothermic processes? (i) Reaction of water with quick lime (ii) Dilution of an acid (iii) Evaporation of water (iv) Sublimation of camphor (crystals)
    (a) (i) and (ii)
    (b) (ii) and (iii)
    (c) (i) and (iv)

(d) (iii) and (iv)

5. Three beakers labelled as A, B and C each containing 25 ML of water were taken. A small amount of NaOH, anhydrous CuSO4 and NaCl were added to the beakers A, B and C respectively. It was observed that there was an increase in the temperature of the solutions contained in beakers A and B, whereas in case of beaker C, the temperature of the solution falls. Which one of the following statement(s) is(are) correct? (i) In beakers A and B, exothermic process has occurred. (ii) In beakers A and B, endothermic process has occurred. (iii) In beaker C exothermic process has occurred. (iv) In beaker C endothermic process has occurred.
   (a) (i) only
   (b) (ii) only
   (c) (i) and (iv)
   (d) (ii) and (iii)

6. Which among the following is(are) double displacement reaction(s)? (i) Pb + CuCl2 → PbCl2 + Cu (ii) Na2 SO4 + BaCl2 → BaSO4 + 2NaCl (iii) C + O2 → CO2 (iv) CH4 + 2O2 → CO2 + 2H2O
   (a) (i) and (iv)
   (b) (ii) only
   (c) (i) and (ii)
   (d) (iii) and (iv)

7. Which among the following statement(s) is(are) true? Exposure of silver chloride to sunlight for a long duration turns grey due to (i) the formation of silver by decomposition of silver chloride (ii) sublimation of silver chloride (iii) decomposition of chlorine gas from silver chloride (iv) oxidation of silver chloride
   (a) (i) only
   (b) (i) and (iii)
   (c) (ii) and (iii)
   (d) (iv) only

8. 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)

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

10. Which of the following is(are) an endothermic process(es)? (i) Dilution of sulphuric acid (ii) Sublimation of dry ice (iii) Condensation of water vapours (iv) Evaporation of water
   (a) (i) and (iii)
   (b) (ii) only
   (c) (iii) only
   (d) (ii) and (iv)

Answer the following questions:

11. 2 g of ferrous sulphate crystals are heated in a dry boiling tube.
    a) List any two observations.
    b) Name the type of chemical reaction taking place.
    c) Write the chemical equation for the reaction.

12 When you have mixed the solutions of lead (II) nitrate and potassium iodide.
    (a) What was the colour of the precipitate formed?
    b) Write the balanced chemical equation for this reaction.
    c)Is this a double displacement reaction?

13 The following diagram displays a chemical reaction. Observe carefully and answer the following:

— Silver Chloride

    a) Identify the type of chemical reaction that will take place and define it. How will the colour of the salt change?
    b) Write the chemical equation of the reaction that takes place.
    c) Mention one commercial use of this salt.

14 A magnesium ribbon is burnt in oxygen to give a white compound X accompanied by emission oflight. 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.

15 A shiny brown coloured element 'X' on heating in air becomes black in colour. Name the element 'X' and the black coloured compound formed.

BIOLOGY

LIFE PROCESSES (CIRCULATORY & EXCRETORY SYSTEM)

1. What are blood copurscles?
2. Write the difference between-
   a) Arteries and Veins
   b) Open and Closed Circulatory System
3. What is the advantage of closed Circulatory System?
4. How does the human circulatory system work?
5. What is double circulatory system?
6. Draw neatly labelled diagram of the following-
   a) Structure of Human heart
   b) Double circulation in Humans
7. Write down the functional activity of the following Parts-
   a) Glomerulus
   b) Henle's loop
   c) Ureters

8. Why is excretion necessary? Name the common excretory substances in our body.
9. If you donate one Kidney to a needy patient would it cause any harm to you. Give reason.

10. Define the terms -
   a) Ultrafiltration
   b) Micturition
   c) Osmoregulation

11. What is Dialysis? Under what conditions is it carried out.
12. Draw neat labelled diagram of –
   a) Structure of excretory System
   b) Structure of Nephron

MATHEMATICS

A- PROJECT WORK

ART INTEGRATION

Topic-1 : (Roll No. 1-20)

The religious monuments are is a geometric design that holds a great deal of symbolism in all cultures. Such monuments are believed to represent different aspects of the universe and are used as instruments of meditation and symbols of prayer.Apply mathematics (trigonometry) on such monuments and compare architectural designs (Temples, Mosque, Church, Monastery …. etc) of Arunachal Pradesh and Meghalaya.

Let us apply trigonometry on three architectural designs of Arunachal Pradesh and Meghalaya considering the original height of and angle of elevation as 30^0 or 60^0

- For ref use this link :
  https://youtu.be/SUnA8vZf_AM
  https://youtu.be/bIA1o9F6dIQ

Topic-2 : (Roll No. 21 onward)

Trigonometry is a branch of mathematics that studies relationships between side lengths and angles of triangles. To understand the meaning of trigonometry, its history and its relation with sides and angle of triangle, bring out the artist in you and prepare a file and trigonometry ratio model.
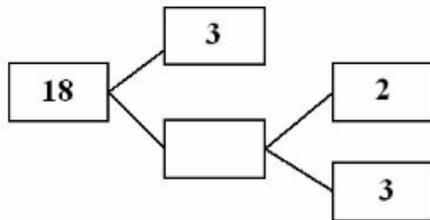
- For ref use this link :

B- SOLVE THE FOLLOWING QUESTIONS

MULTIPLE CHOICE QUESTIONS:

1. The missing number in the following factor tree is

    (a) 6   (b) 2   (c) 3   (d) 1

2. Given that HCF(1152, 1664) = 128 the LCM(1152, 1664) is

    (a) 14976   (b) 1664   (c) 1152   (d) none of these

3. If the HCF of 65 and 117 is expressible in the form $65m - 117$, then the value of m is

    (a) 4   (b) 2   (c) 1   (d) 3

4. The HCF of smallest composite number and the smallest prime number is

    (a) 0   (b) 1   (c) 2   (d) 3

5. A quadratic polynomial whose sum and product of zeroes are –3 and 4 is

    (a) $x^2 - 3x + 12$ (b) $x^2 + 3x + 12$ (c) $2x^2 + x - 24$. (d) none of the above.

Long answer type questions

1. Prove that $7 + 2\sqrt{3}$ is an irrational number
2. Prove that $\sqrt{3} + \sqrt{5}$ is an irrational number.
3. Find the value of k, so that the following system of equations has no solution:
    (a) $3x + y = 1$; $(2k - 1)x + (k - 1) y = (2k - 1)$.
    (b) $3x + y = 1$; $(2k - 1)x + (k - 1) y = (2k + 1)$.
    (c) 5. $x - 2y = 3$; $3x + ky = 1$.
    (d) $x + 2y = 5$; $3x + ky + 15 = 0$.
1. Solve the following system of linear equations graphically: $4x - 3y + 4 = 0$; $4x + 3y - 20 = 0$.Calculate the area bounded by these lines and x-axis.
2. Solve the following system of linear equations graphically: $4x - 5y + 16 = 0$; $2x + y - 6 = 0$.Find the coordinates of the vertices of the triangle formed by these lines and y-axis.
3. The sum of the digits of a two-digit number is 12. The number obtained by interchanging the twodigits exceeds the given number by 18. Find the number.
4. The sum of the digits of a two-digit number is 15. The number obtained by interchanging the twodigits exceeds the given number by 9. Find the number.
5. The denominator of a fraction is greater than its numerator by 11. If 8 is added to both itsnumerator and denominator, it reduces to 1/3. Find the fraction.

6. If twice the son's age in years is added to the mother's age, the sum is 70 years. But if twice themother's age is added to the son's age, the sum is 95 years. Find the age of the mother and herson.

7. A boat goes 30 km upstream and 44 km downstream in 10 hours. In 13 hours, it can go 40 kmupstream and 55 km down-stream. Determine the speed of the stream and that of the boat in stillwater.

8. The sum of the areas of two squares is 468 m2. If the difference of their perimeters is 24 m, findthe sides of the two squares.

9. Rita can row downstream 20 km in 2 hours, and upstream 4 km in 2 hours. Find her speed ofrowing in still water and the speed of the current.

10. Rohit travels 300 km to her home partly by train and partly by bus. She takes 4 hours if shetravels 60 km by train and the remaining by bus. If she travels 100 km by train and the remainingby bus, she takes 10 minutes longer. Find the speed of the train and the bus separately.

11. If $\sin\theta = \cos\theta$, find the value of 'θ ' .

12. If sin A = 3/5 , calculate cos A

13. Evaluate: $\cos 48^0 \cos 42^0$ - $\sin 48^0 \sin 42^0$

14. Express the trigonometric ratioscos A, tan A and sec A in terms of sin A

15. In Δ ABC, right-angled at C find cos A, tan A and cosec B if $\sin A = \dfrac{24}{25}$

16. In triangle ABC, right-angled at B, if $\tan A = \dfrac{1}{\sqrt{3}}$, find the value of:

    sin A cos C + cos A sin C

17. Evaluate:$\dfrac{tan^2 60^0 + 4\ cos^2 45 + 3\ sec^2 30^0 + 5cos^2 90^0}{cosec 30^0 + sec\ 60^0 - cot^2 30^0}$

18. Evaluate:$\dfrac{sin^2 63^0 + sin^2 27^0}{cos^2 17^0 + cos^2 73^0}$

19. If sin (A–B) = 1/2, cos (A + B) =½, 0°<A+ B< 90, A<B find AandB.

20. Find the value of tan 48° tan 23° tan 42° tan 67°.

हिन्दी

1. आजादी का अमृत महोत्सव विषय पर पत्रिका निर्माण A-4 साइज शीट पर कीजिए। प्रश्नों का निर्धारण निम्नलिखित विषयों के आधार पर क्रमबद्ध रूप में कीजिए |

- संपादकीय पृष्ठ संदेश
- लेख (एक)
- कविता (दो)
- विज्ञापन (देश प्रेम से संबंधित)
- अनसुने स्वतंत्रता सैनानी और वीरांगनाओं के चित्रों का कोलाज, व उनके विषय में महत्वपूर्ण तथ्य लिखिए |
- किसी स्वतंत्रता सैनानी की प्रेरक लघु कथा लिखिए |
- आजादी से संबंधित महत्वपूर्ण तथ्य

2. प्रेमचंद्र, जयशंकर प्रसाद, शरद जोशी, हरिशंकर परसाई, यशपाल इनमें से किसी भी लेखक के द्वारा लिखी गई कोई दो कहानियां पढ़िए व उन्हें अपने शब्दों में रूपांतरित करके लिखिए | कहानी की विषय वस्तु पर आधारित चित्र भी तैयार कीजिए |

कार्यपत्रिका

1. आदर्श स्थिति बनाए रखने के लिए बड़े भाई साहब का बचपन कैसे तिरोहित हो जाता है ? स्पष्ट कीजिए |
2. बड़े भाई साहब कहानी से आपको क्या प्रेरणा मिलती है ?
3. बड़े भाई साहब का पतंग पकड़कर भावना और छोटे भाई काम के पीछे भागना क्या करता है ?
4. मनुष्य का विनाश करता है इस कथन को स्पष्ट करने के लिए बड़े भाई साहब ने क्या-क्या उदाहरण दिए हैं ?
5. अपने माता-पिता के उदाहरण द्वारा बड़े भाई साहब क्या स्पष्ट करना चाहते हैं ?
6. कबीर की साखियां जीवन के यथार्थ है कितना मेल खाती हैं ? स्पष्ट कीजिए |

संस्कृत

1. पढ़ाए गए अध्यायों को पुनः पढे तथा विशेष शब्दों को अभ्यास पुस्तिका में लिखकर याद करें ।

2. विसर्ग और व्यंजन संधियों के नियमों को पुनः लिखें तथा अन्य माध्यमों से संधियों के 20-20 उदाहरण लिखें व समझे ।

3. घटिका को चार्ट में दर्शाते हुए पुनः लिखे, स्मरण करें ।

4. अव्यय तालिका बनाकर अभ्यास पुस्तिका में 20 वाक्यों को लिखें ।

5. तीनों पुरुषों के अनुसार पाचों लकारों में संस्कृत 30 वाक्यों का निर्माण कीजिए ।

6. मतुप्,त्व,तल्,ठक्,टाप् और ङीप् प्रत्ययो के नियम व 10-10 उदाहरणों को पुनः पुस्तिका में लिखे ।

7. 30 अशुद्ध वाक्यों को लिखकर पुनः शुद्ध करके पुस्तिका में लिखे ।