

Holiday Homework

2021-22

Class Prep

English:

1. Do one page daily in English Writing Book.
2. Learn any 1 Rhymes and make a video.

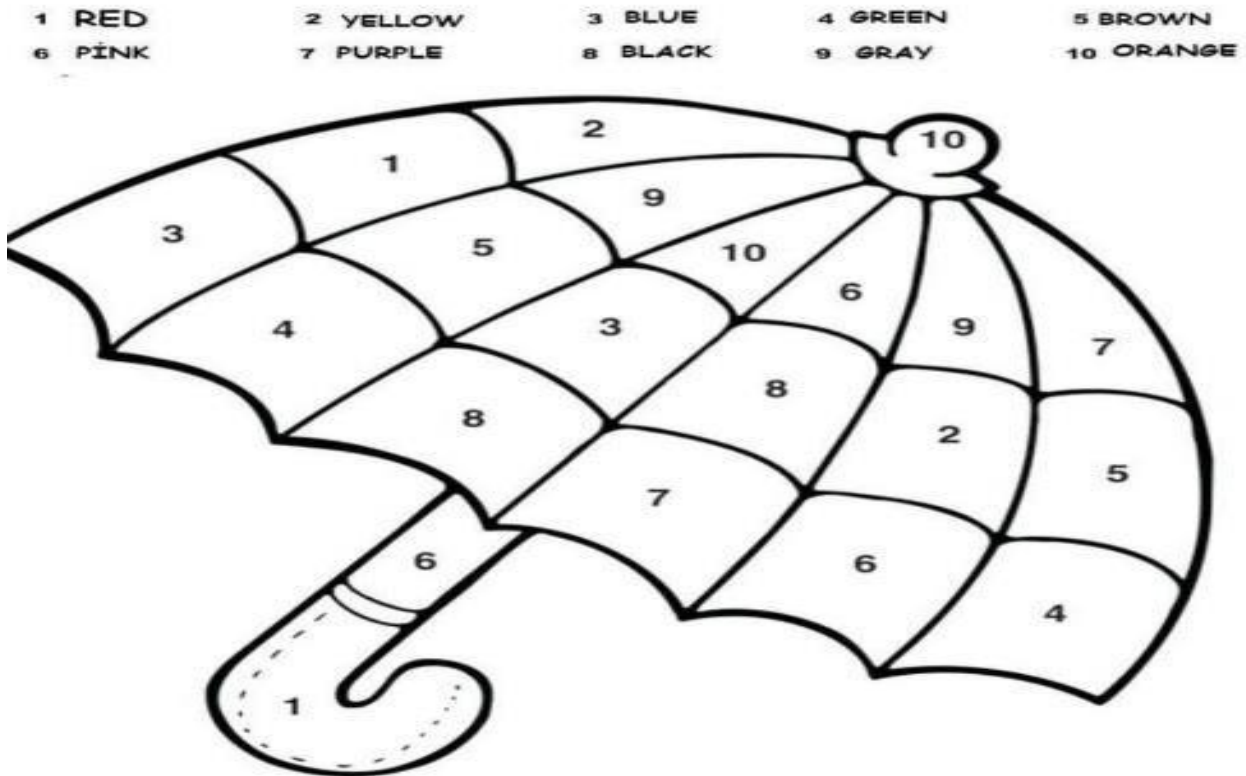
Hindi:

1. Do one page daily in English Writing Book.
2. Learn any 1 Rhymes and make a video. **Maths:**

1. Make a Number Caterpillar (1 to 20)

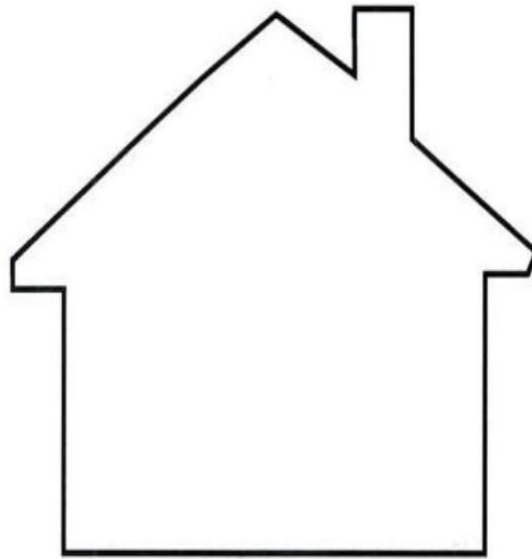


2. Colour the given umbrella with the help of given colour codes.

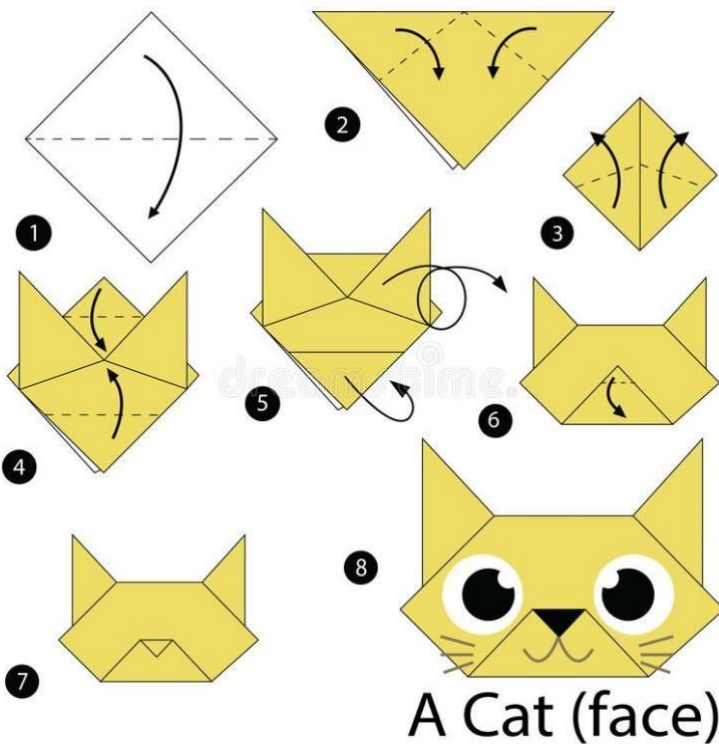


EVS:

1. Draw a house, decorate it and paste the pictures of your family members.



2. Make an Origami of Cat.



3. Paste pictures of vegetables, fruits, transports, flowers and animals in your EVS notebook. (Each 5 pictures)

Note: All the work will be done in the notebook.

Summer Holiday Homework for **class -1st**
Session 2021- 22

English - * Daily do one page writing in cursive writing book.

- Daily read any chapter.
- Learn and write week name 5 times in your rough note book.
- Learn and write months name 5 times in your rough notebook.

Mathematics - * learn and write table from 2 to 5 (10 times).

- Learn and write numbers name 1- 10 (10 times).
- Write counting 1- 50 (5 times).
- Revise all pre- number concept (2 times).
- Make thin copy for Holiday homework.

EVS

1. Write five points on daily health and cleanliness routine .
2. Mention any five good habits on an A4 size paper.
3. Learn lesson 1 to lesson 4.

Hindi:

- 1) कोई भी एक कविता याद करिए और उसका वीडियो बनाइए ।
- 2) छाते का चित्र बनाकर रंग भरिए और उसे काटकर अपनी कॉपी में चिपकाइए ।
- 3) दिए गए चित्र की सहायता से 10 दो , तीन व चार अक्षर वाले शब्दों की रेलगाड़ी अपनी हिंदी कॉपी में बनाइए।



- 4) अखबार व पत्रिका से 'अ' , 'आ' और 'इ' की मात्रा वाले 5-5 शब्द खोजकर दिए गए उदाहरण के अनुसार काटकर अपनी हिंदी कॉपी में चिपकाइए ।

	अ	आ	इ
1.	_____	_____	_____
2.	_____	_____	_____
3.	_____	_____	_____
4.	_____	_____	_____
5.	_____	_____	_____

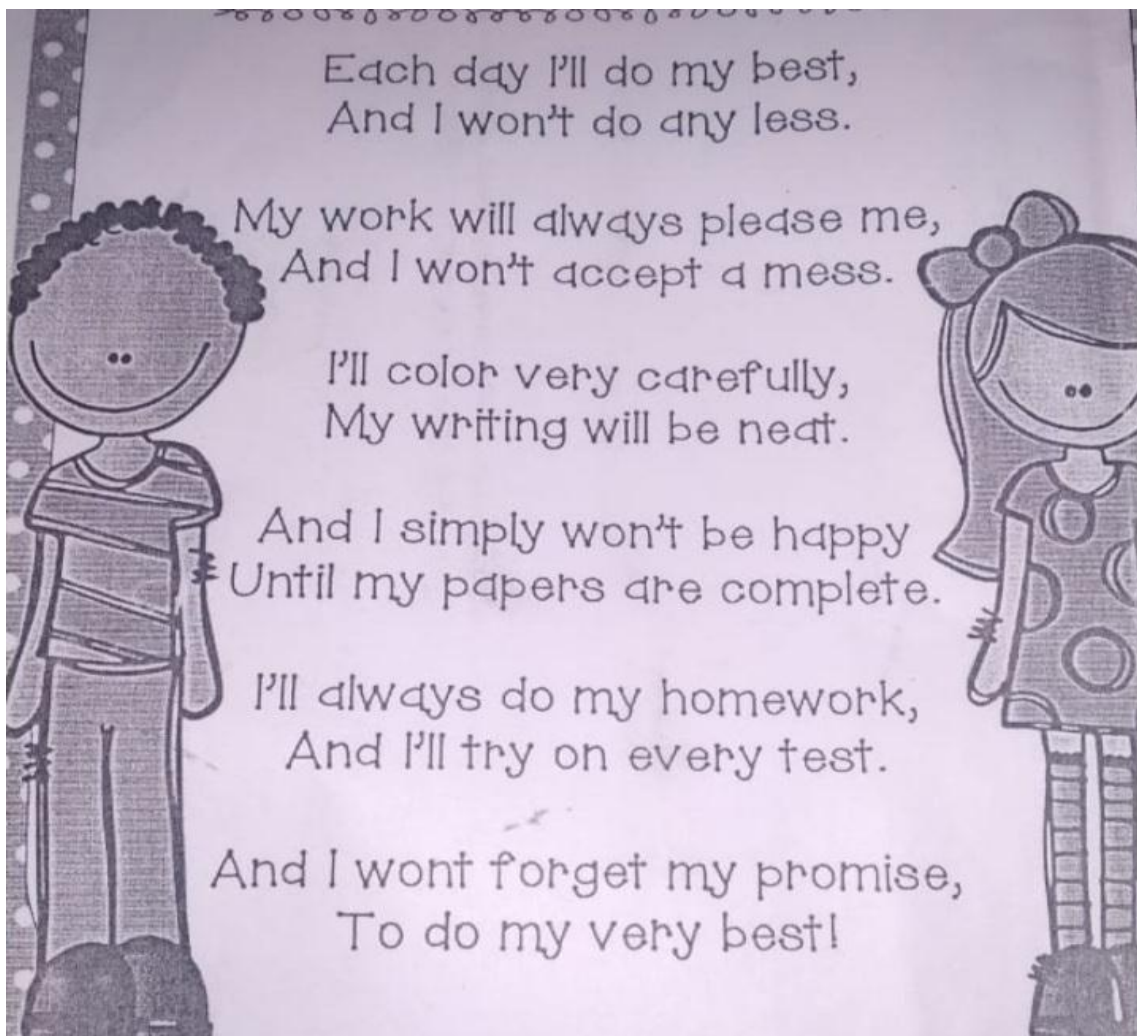
HOLIDAY HOMEWORK CLASS-2

English- Summer Holiday Home work (2021-22)

Subject- English

Class- 2

1. Write one page daily in cursive writing book.
2. Read Story book 'The Lion King'.
(will be provided pdf form in class WhatsApp group)
3. Learn the given poem and shoot a short video nicely. Post the video in class group.



Hindi- 1-वर्णमाला व मात्राओं का अभ्यास करें।

2.10 पेज सुलेख लिखें।

Maths- 1-Revise chapter-1 in revision copy.

2-Revise chapter-2 in revision copy.

Evs-

1- Make the model of external body parts

2- Make the model of internal body parts

3- Make a album of maternal family

4-Make album of paternal relatives

HOLIDAY HOMEWORK

CLASS 3 A/B

MATHS : 1. Revise chapter -1 in revision copy.

2.Revise chapter-2 except excercise 2(E) in revision copy.

HINDI : 1. 10 pages sulekh.

2. Draw a picture of Maharana Pratap and learn the poem “ Ranbeech Chaukdi Bharkar “ and make a video on it.

ENGLISH- 1. Daily write one page writing in cursive writing book .

2. Daily read one chapter and write new words and also learn them .

3.Make thin copy for holiday homework.

EVS – 1. Make your own visual dictionary of sense organs .

2. Make a list of plants that grow in your surroundings.

3. Learn lesson 1 to 4.

COMPUTER-1. Complete exercises of chapter 1 and 2 .

Activity 1- making a list of places where computers are used.

Activity 2- making a chart of parts of a computer.

Activity 3- making a chart of hardware devices.

CLASS 4
HOLIDAY HOMEWORK

SUBJECT- ENGLISH

1. Write one page daily in cursive writing book (For 15 days).
2. Select a short paragraph from any English book, write it first in printing manner and then in cursive (same para) handwriting(make a separate thin English copy for this) . Do this for 10 days.
3. Read a story book of famous writer Mrs. Sudha Krishnamurti. Click your photo with the book and post in class group. Later we will discuss about the book in class.

SUBJECT - HINDI

- 1-स्वच्छता पर स्लोगन लिखें ।
- 2.भारत के मानचित्र पर विभिन्न राज्यों को दर्शाएँ व विभिन्न राज्योंए उनकी राजधानियों व वहाँ बोली जाने वाली भाषा की सूची बनाए।
- 3.10 पेज सुलेख लिखें।

SUBJECT- MATHS

- 1.Revise chapter-1 in revision copy.
2. Write Roman numerals from 1 to 100 in revision copy.

SUBJECT- EVS

1. Draw a poster of Mowgli cartoon character.
2. Make a model of Stethoscope.
3. Learn lesson 1 2,3 and 4.

SUBJECT- COMPUTER

Complete the exercises of chapter 1 and learn also.

Activity – 1 Making a chart of storage devices

Activity – 2 Making a list of types of memory

Activity – 3 Create a folder

Activity – 4 Create a Virtual desktop

1} Summer Holiday Home work (2021-22)

Subject- English Class- 5th

1. Write one page daily in cursive writing book.
2. Write a short story or with drawing you can create a comic book also(use a separate thin copy for this).
3. Write a short poem of your own (6 to 8 lines).
- Please do not copy any story/ poem from internet. Try to do your own.

2} Summer Holiday homework

Class 5 Subject - Hindi

- 1^ए गाँधी जी का चित्र बनाकर उनके जीवन से संबंधित किसी एक घटना का वर्णन कीजिए।
- 2^ए भारत के मानचित्र पर विभिन्न राज्यों को दर्शाएँ व विभिन्न राज्योंए उनकी राजधानियों व वहाँ बोली जाने वाली भाषा की सूची बनाएँ।
- 3^ए महाभारत के पात्रों से संबंधित चित्र चिपकाकर कोलाज़ बनाएँ।
- 4^ए 10 पेज सुलेख लिखें।

3} SUMMER HOLIDAY HOMEWORK

CLASS-5 SUBJECT - MATHS

1. Revise chapter-1 in revision ccopy.
2. 2Revise chapter-2 in revision copy.
3. Write Roman numeral from 1 to 1000 in revision copy.

4} SUMMER HOLIDAY HOMEWORK

CLASS 5 SUBJECT - EVS

1. Find out more about Mahatma Gandhi's Idea on dignity of labour. write about a famous incident when he himself cleaned toilets.
2. page 28- quiz time
3. page 23 formative assessment.
- Complete the above mentioned hhw in your EVS notebook.

5} ग्रीष्मावकाशीय गृहकार्यम् २०२१.२२,

कक्षा.पञ्चमीए विषयः . संस्कृतम्

- 1^ए अकारान्त.पुँल्लिङ्ग. ;देवःए शिवःए गणेशः आदयःद्व आकारान्त.स्त्रीलिङ्गयोः ;रमाएगीताएसीता आदयःद्व शब्दानां सर्वाणि विभक्तिरूपाणि स्मरत।
 - अकारान्त.पुँल्लिङ्गए;देवःए शिवः गणेशः आदिद्व आकारान्त. स्त्रीलिङ्गए ;रमाएगीताए सीता आदिद्व शब्दों के सभी विभक्ति. रूपों को याद करें।,
- 2^ए तद् सर्वनाम्नः त्रयाणां लिङ्गानां ;सःएसाएतत्द्व एवम् अस्मद् ;अहम्द्व सर्वनाम्नः सर्वाणि विभक्तिरूपाणि स्मरत।

- ख्त्तद् सर्वनाम के तीनों लिंगों के ;सःएसाएतत्द्ध एवं अस्मद् ;अहम्द्ध सर्वनाम के सभी विभक्तिरूपों को याद करें।
- 3ण अधोलिखितानां क्रियापदानां लट्.लकारस्य त्रयाणां पुरुषाणां त्रीणि वचनानि स्मरत . ष्पठ्.पठतिए खाद्.खादतिए वद्.वदतिए रक्ष्.रक्षतिएचल्.चलतिश् आदयः।
- अधोलिखित क्रियापदों के लट् लकार के तीनों पुरुषों के तीनों वचनों को याद करें . ष्पठ्.पठतिए खाद्.खादतिए वद्.वदतिए रक्ष्.रक्षतिएचल्.चलति आदिश्।
- 4ण प्रतिदिनम् एकं पृष्ठं संस्कृत.सुलेखं लिखत।
- प्रतिदिन एक पृष्ठ संस्कृत सुलेख लिखें।

CHINMAYA VIDYALAYA SESSION-2021-21
HOLIDAY HOMEWORK
CLASS-VI

ENGLISH

- A. Literature: Revise the three chapters done till date for the PT-1.
B. Writing: Document (Write) two diary entries during the vacation.
Also, compose a poem(8 to 12 lines) on the topic: 'Covid 19- For better or worse'.
C. Reading: Read any one story of your choice and prepare it's narration

HINDI

- 1) प्रकृति पर कविता लेखन (स्वरचित कविता)
- 2) भारत के मानचित्र पर सभी राज्यों को दर्शाते हुए, राज्यों, राजधानियों व भाषा की सूची बनाए।
- 3) 10 पेज सुलेख लिखिए।

SANSKRIT

1. 'अकारान्त-पुँल्लिङ्गम्, अकारान्त- नपुंसकलिङ्गम्, आकारान्त- स्त्रीलिङ्गम्' इत्यादीनां शब्दानां सर्वाणि विभक्तिरूपाणि स्मरन्तु।
2. 'तत्, एतद्, किम्, अस्मद्' इत्यादीनां सर्वनाम-शब्दानां त्रयाणां लिङ्गानां सर्वाणि विभक्तिरूपाणि स्मरन्तु।
3. अधोलिखितानां क्रियापदानां लृट्-लकारस्य त्रयाणां पुरुषाणां त्रीणि वचनानि स्मरन्तु-
'पठ्, वद्, हस्, खाद्, चल्' इत्यादयः।
4. प्रतिदिनम् एकं पृष्ठं संस्कृत-सुलेखं लिखन्तु।

MATHS

1. Write the properties of whole numbers with examples on a chart paper or A4 size sheets.
2. Make a list of all the states and union territories of India and make three columns in front of the list. Write down the population in one column and number of people vaccinated in the second column. In the third column write down the number of people vaccinated to nearest 10,000.

Example:

S.No.	States/Union territory	population	No. of people vaccinated	Rounded to nearest 10,000 (vaccinated)
1.	Andhra Pradesh	9,24,65,775	49, 39, 145	49,40,000
2.	Arunachal Pradesh			

For data take the help of internet.

3. Revise chapter 1 & 2 in holiday homework copy (60 pages).

SCIENCE

1. Identify the components of food in your favorite diet.
2. Prepare a diet chart on a A4 size paper to provide balance diet to a 12year old child and paste in your copy. Diet chart should include food items which are not expensive and are commonly available in your area.
3. Paste different types of fabric in your notebook.
4. Prepare a chart on Deficiency diseases as given below on A4 size paper and paste it in your copy. One example is done for you

	Vitamin/Mineral	Deficiency disease/ disorder	Symptoms	Suggested food items/ ways to cure disease	
5.	1	Vitamin-A	Loss of vision	Poor vision	Yellow fruits

Solve the

following Food Group Riddles:

- (a) I am white. You can drink me. I am in the dairy group. Who am I?
- (b) I can sometimes be light brown or white. I have yellow stuff inside me. I am a protein. Who am I?
- (c) I am green or red. I am spicy and hot. I am in the vegetable group. Who am I?
- (d) I am yellow and long. I am a fruit. Monkeys eat me. Who am I?
- (e) I am green and when you cut me open, I am red. You eat me in the summer time. I am a fruit. Who am I?
- (f) I am green. I look like a tree. I am a vegetable. Who am I?

SOCIAL SCIENCE

1) MAKE A MODEL OF THE SOLAR SYSTEM USING BALLS OF DIFFERENT SIZES.

2) FIND OUT THE NAMES OF SOME ASTRONOMERS AND MAKE A LIST OF THEIR MAJOR CONTRIBUTIONS.ALSO PASTE THEIR PICTURES TO PREPARE A COLLAGE.

3) REVISE THE WORK WHICH IS COMPLETED SO FAR.

COMPUTER

Complete the exercises of chapter 1

Activity – 1 Making a chart of Hardware devices

Activity – 2 Making a list of Application softwares.

Activity – 3 Applying themes

Activity – 4 Adjusting Date & Time

CHINMAYA VIDYALAYA SESSION-2021-21

HOLIDAY HOMEWORK

CLASS-VII

ENGLISH

LEARNING WORK: Learn the following lessons for Periodic Test-1.

- Lesson 1: The Three Questions and the Squirrel(poem) (Honeycomb)
- Lesson 2: Gopal and Hilsa Fish (Honeycomb)
- Lesson 1: The Tiny Teacher (An Alien Hand)
- Lesson 3: The Desert (An Alien Hand)

ACTIVITY: (to be done in your Grammar Notebook)

- Paste / Draw the pictures of Covid-19 Warriors (Doctors, Nurses, Policemen, Social workers etc.) and write about them 10-15 lines how they help the humanity and what you learn from them.
- 5th of June is 'Environment Day'. Celebrate this day by planting a sapling. Take a photograph and paste in your notebook. And write a paragraph on how you celebrated the Environment Day? (150 words)

WORKBOOK: (Do the exercises in your workbook)

- **Grammar -Lesson-1 and 2 'Nouns and Pronouns'**– Exercises given in your English Workbook
- **Comprehension:** Practice Paper I and II

WRITING SECTION: (to be done in your Grammar Notebook)

Q1. Your school is organizing a four day excursion to the Jim Carbett National park for students of Class-VII. As a perfect, you have been asked to inform your fellow students of the trip. Write a notice to be put up on the notice board. Do not forget to include importance details about the trip, such as the date, cost etc.

Q2. Write a paragraph in 150-180 words on

1. 'Importance of Reading'
2. 'Where there is will there is a way''

HINDI

- .Nadi ya pahad par kinhi do kavitaon ka sangrah kijiye.
- .Apne manpasand vishay par swarachit Kavita/ kahani/natak/lekh likhiye.
- .20 page sulekh likhiye.
- .kisi bhi pratishthit lekhak ki do kahaniyan padhiye aur unka saransh likhiye.
- Abhi tak padhaya gaya pathyakram dohraiyee.

SANSKRIT

1. अकारान्त.पुंल्लिङ्गमए अकारान्त. नपुंसकलिङ्गमए आकारान्त.स्त्रीलिङ्गमए इर्धकारान्त.स्त्रीलिङ्गमए इत्यादीनां शुभदानां सुखाणि वर्धन्ततत्तुपाणि स्तमरन्त ।

2^o शतत्एतदएककम्अस्त्वमद्य षमद् इत्यादीनां सर्ानाम.शब्दानांरयािांलिङ्गानांसर्ाणि
वर्भलततरूपाणि स्तमरन्त ।

3^o अधोलिणितानां कियापदानां िङ्िकारस्त्य रयािांरूपािां रीणि र्चनानन स्तमरन्त .
शलििर्िादएर्धार्एचिर् इत्यादयः।

4^o प्रनतददन एकं पष्ुं सुस्तकृत.स िेिुंलििन्त ।

MATHS

ACTIVITY:-

1. As discussed about CVP (Chinmaya Vision Program)during class, correlate Chapter 1 & Ch 2 with all aspects of CVP.(Try maximum aspects to correlate with chapters).

2. Prepare a model showing rules and example of CHAPTER -1 & CHAPTER-2.(Use A-4 SHEET or Chart paper)

Practice Work

Q.1- Make a table of properties of Integers with example. (Closure, Commutative, Associative, Distributive, Additive & Multiplicative identity.)

Q.2-Find the product using suitable properties:

(i) $26x(-48)+(-48)x(-36)$ (ii) $8x 53 x (-125)$ (iii) $(625x(-35))+(-625)x65$ (iv)
(-17)x(-29) (v) $(-57)x(-19)+57$

Q.3- Ex 1.3 Ques-7 & 8

Q.4 Simplify : (i) $3\frac{4}{7} \times 2\frac{2}{5} \times 1\frac{3}{4}$

Q.5 A rope of length $9\frac{3}{4}$ is cut onto 6 equal lengths. Find the length of each piece.

Q. 6- Find: (i) $20x\frac{4}{5}$ (ii) $4x 6\frac{4}{7}$ (iii) $\frac{5}{8}$ of $3\frac{5}{6}$ (iv) $6\frac{2}{5} \times 5\frac{4}{7}$

Q.7. Which is greater $5\frac{6}{7}$ of $3\frac{5}{6}$ OR $2\frac{1}{3}$ of $6\frac{4}{7}$

Q.8-Find : (i) 0.01×0.3 (ii) 10.1×316.8 (iii) 10.05×1.05 (iv) 11.2×0.15

Q.9.Find : (i) $36 \div 0.2$ (ii) $3.25 \div 0.5$ (iii) $37.8 \div 1.4$ (iv) $42.8 \div 0.02$

**** All homework must be done in class notebook.**

SCIENCE

Note-Do all questions in your class copy only.

1. Write a short note on different types of modes of nutrition with their examples
2. Make a model on human digestive system by using waste material only.
3. Prepare an attractive poster on A4 size paper and paste in your copy on the topic “Fast food is not good for health.”
4. Write about different types of digestive enzymes secreted by different body parts to digest various nutrients in a tabular form as given below. One example is done for you.

SNO.	NUTRIENTS	ENZYMES	SECRETED BY	PART OF DIGESTIVE SYSTEM IN WHICH DIGESTION OCCURS
1	Carbohydrate	Amylase	Salivary glands	Mouth

5. Collect different types of fibres at your home for example silk, wool and paste than in your notebook.
 - a) Collect the information of animals from which these fibres are obtained.
 - b) Collect the information about the area to which these animals belongs.
 - c) Find out the properties of fibres by observing and compare them. Write them in tabular form.
 - d) Write their use in daily life.

SOCIAL SCIENCE

- 1) Healthy and balanced food with regular physical activities help us to be healthy .Find out and make a list of food items that you eat and tick mark those items that add to your health .Try to avoid the unhealthy items in food. Do it in your copy.
- 2) Search for information and pictures related to phenomena of global warming and prepare a detailed report on it .Also give your views on the impact responsible for it and suggest ways to check the threats. Make a PPT OR do it in your copy
- 3) Make a PowerPoint presentation (OR do it in your copy) to suggest ways to protect the environment in the urban areas you can take clues from countries which are developing green cities.
- 4) Learn PT -1 syllabus.

COMPUTER

- Complete the exercises of chapter 1 & 2
- Activity – 1 Converting Decimal to Binary
 - Activity – 2 Binary Arithmetic from textbook exercises
 - Activity – 3 Creating a list of graphs OR Charts in Excel
 - Activity – 4 Creating a Graph or Chart in Excel

Chinmaya Vidyalaya, NTPC Unchahar

Holiday Homework -2021

Class – 8

Sr.No.	Subject	Homework
1	ENGLISH	<p>LEARNING WORK: Learn the following lessons for Periodic Test-1.</p> <ul style="list-style-type: none">• Lesson-1: The Best Christmas Present in the World and The Ant and the Cricket poem (Honeydew)• Lesson-2: The Tsunami (Honeydew)• Lesson-1: Children at Work (It So Happened) <p>ACTIVITY: (to be done in your Grammar Notebook)</p> <ul style="list-style-type: none">• Write a self-composed poem on the theme Health is Wealth• Draw a comparison with the help of pictures – Privileged Children and Under Privileged Children. Express your views or emotions for these pictures with the help of emojis.• Select three Indian and three foreign writers from your Textbook and write the details with pictures under these heads- NAME, DATE OF BIRTH, DATE OF DEATH, NOBLE WORK and WRITING STYLE. <p>WORKBOOK:</p> <ul style="list-style-type: none">• Lesson-1 and 2 “Nouns and Pronouns”– Exercises given in your English Workbook• Comprehension: Practice Paper I and II <p>NOTICE WRITING (to be done in your Grammar Notebook)</p> <p>Suppose you are the head boy of your school. A tree plantation programme is going to be organized by your school on 8th June. The students will plant trees in a nearby barren land and the saplings will be provided by the school. The programme will start at 10 a.m. Write a notice in 50 words to inform the students about it.</p>
2	HINDI	<p>. Vasant Ritu par kinhi teen kavitaon ka sangrah kijiye.</p> <p>.Apne manpasand vishay par swarachit Kavita/kahani/natak/lekh likhiye.</p> <p>.20 page sulekh likhiye.</p> <p>.Munshi Premchand ki koi do kahaniyan padhiye aur</p>

		<p>unka saransh likhiye. .Abhi tak padhaya gaya pathyakram dohraiyе.</p>
3	SOCIAL STUDIES	<p>1.Make a list of 10 food items that you consume everyday. Find out from which agricultural commodity they are made collect the pictures and paste them in copy or make a PPT. 2) Make a PPT on natural disaster and man made disasters. 3) Prepare slogans to create awareness among the people against deadly diseases like diabetes and Coronavirus. 4) Learn PT -1 syllabus</p>
4	MATHEMATICS	<p>MATHS ACTIVITY:- 1.As discussed about CVP (Chinmaya Vision Program)during class, correlate Chapter 1 & Ch 2 with all aspects of CVP.(Try maximum aspects to correlate with chapters). 2. Prepare a model showing rules and example of CHAPTER -1 & CHAPTER-2.(Use A-4 sheet or Chart paper). H.W. Q.1-Solve: (i) Multiplicative inverse of $0/1$ is _____? (ii) Find three rational numbers lying between $-3/4$ & $1/2$. (iii) The product of a non-zero rational number and its reciprocal is _____. (iv) If $x = 1/3$ and $y = 6/7$ then $xy - y/x = ?$ (v) Every rational number has a reciprocal. (True/ False)</p> <p>Q.2- Let O, P and Z represent the numbers 0, 3 and -5 respectively on the number line. Points Q, R and S are between O and P such that $OQ = QR = RS = SP$. What are the rational numbers represented by the points Q, R and S. Next choose a point T between Z and O so that $ZT = TO$. Which rational number does T represent?</p> <p>Q.3- A farmer has a field of area $49\frac{4}{5}$ hectare. He wants to divide it equally among his one son and two daughters. Find the area of each one's share. (1 hectare = $10,000\text{ m}^2$)</p> <p>Q.4 The product of two rational numbers is -7. If one of the number is -10, find the other.</p> <p>Q.5 A rope of length $9\frac{3}{4}$ is cut onto 6 equal length.Find the length of each piece.</p>

		<p>Q. 6- Find x : $5x-3(2x + 1) = 21+x$</p> <p>Q.7- The present age of father is four times the age of his son. After 10 years, age of father will become three times the age of his son. Find their present ages.</p> <p>Q.8- If y be the reciprocal of rational number x, then what will be the reciprocal of y?</p> <p>Q.9 Fifteen added to thrice a whole number gives 93. What is the number?</p> <p>Q10.- A steamer goes downstream from one point to another in 7 hours. It covers the same distance upstream in 8 hours. If the speed of stream be 2 km/hr, find the speed of the steamer in still water and the distance between the ports.</p> <p>Q.11 Radha takes some flowers in a basket and visits three temples one by one. At each temple, she offers one half of the flowers from the basket. If she is left with 3 flowers at the end, find the number of flowers she had in the beginning.</p> <p>Q.12- Rs. 13500 are to be distributed among Salma, Kiran and Jenifer in such a way that Salma gets Rs. 1000 more than Kiran and Jenifer gets Rs. 500 more than Kiran. Find the money received by Jenifer.</p> <p>Q.13. The volume of water in a tank is twice of that in the other. If we draw out 25 litres from the first and add it to the other, the volumes of the water in each tank will be the same. Find the volume of water in each tank.</p> <p>Q.14. Sum of the digits of a two-digit number is 11. The given number is less than the number obtained by interchanging the digits by 9. Find the number.</p> <p>Q.15. The perimeter of a rectangle is 240 cm. If its length is increased by 10% and its breadth is decreased by 20%, we get the same perimeter. Find the length and breadth of the rectangle.</p> <p>** All homework must be done in class notebook.</p>
5	SANSKRIT	<p>➤ संस्कृत भाषायाः महत्त्वम् वर्तमान समये संस्कृतभाषायाः उपादेयता' अथवा किमर्थं संस्कृतं पठनीयम् इति विषये निबन्धं लिखत ।</p> <p>➤ अधोलिखित शब्दरूपाणि टिप्पणीपुस्तिकायाम् लिखन्तु एवं कंठस्थी कुर्वन्तु.</p>

		<p>1.राम 2. लता 3. नदी 4. गुरु अथवा भानु 5. अस्मद् 6. युष्मद्।</p> <p>➤ अधोलिखित धातुरूपाणि लिखन्तु एवं कंठस्थी कुर्वन्तु</p> <p>गम् , पठ् एवं लिख् पंचेषु लकारेषु</p> <p>➤ गीतापाठपंचदशः अध्यायः कण्ठस्थी कुर्वन्तु।</p> <p>➤ प्रतिदिनं एकं पृष्ठं संस्कृतसुलेखं लिखन्तु।</p>
6	COMPUTER	<p>Complete the exercises of chapter 1 & 2</p> <p>Activity – 1 Creating a list of different types of networking / topologies</p> <p>Activity – 2 Making a list of Networking devices</p> <p>Activity – 3 Testing of List and table tags</p>
7.	SCIENCE	<p>Note -Do all questions in your class copy only.</p> <ol style="list-style-type: none"> 1. Collect new agricultural machine pictures and paste in your copy with their names and uses. 2. Prepare chart on A4 size paper and paste in your copy about the scientists who discovered the microorganisms or have made vaccination. 3. There are animals that destroy the crop before it is harvested. Farmers find it difficult to protect the crops from these animals, insects and microorganisms. Provide information to you by answering the questions. <ol style="list-style-type: none"> (a) What are these animals/insects called? (b) Name few that ruin the standing crops. (c) What methods do the farmers employ to protect their crops? (d) Name some common insecticides used to protect crops. (e) Write the difference between insecticide, pesticide, fungicide and rodenticide. 4. Write a short note on nitrogen cycle including the name of all kind of microorganism involved in it. 5. Write an article on the topic-MY FAVOURITE FABRIC.

Chinmaya Vidyalaya, NTPC Unchahar
Holiday Homework -2021
Class – 9

Sr.No.	Subject	Homework
1	ENGLISH	<ol style="list-style-type: none"> 1. Write an Article on the topic "The Importance of Youth in the making of new India" in about 200-230 words (in A4 Size Sheet). 2. Read any one novel/ story book of your choice and write its Review in about 180-200 words (In A4 Size Sheet). 3. Create a Diary Entry in which you will write the diary of any one day when you had done a virtuous act like helping your mother, helping your father or anybody who needed your help instantly, in 150-180 words (in A4 Size Sheet). 4. Use your dictionary and write two vocabulary words with its meaning daily from the dictionary and write a sentence using each word in your English Grammar notebook. 5. Complete the question-answers of all the chapters taught till now in your English Literature notebook.
2	HINDI	<ol style="list-style-type: none"> 1. Chhatr chhoti note book me 20 page sulekh likhenge. 2. Chhatr Class magazine ke lie story, poem, natak, sansmaran, jeewan ki rochak ghatnayan adi me se koi ek likhenge. Paper ka size A4 hoga jisme left me 1inch ka margin hona chahie. Samagri ki likhwat achchhi aur susajjit honi chahie. Neeche chhatr ka name, class aur section likha hona chahie. 3. Chhatr Hindi ki koi bhi char kahaniyan padhenge jo pathy pustak me na ho aur usase milne wali seekh ke bare me apni sparsh ki note book me likhenge.
3	SANSKRIT	<ol style="list-style-type: none"> 1. विद्यालये वृक्षाणां संरक्षणार्थं अस्माभिः किं किं करणीयम् इति विषये संस्कृतेन दश वाक्यानि लिखन्तु। 2. स्वच्छता इति विषये एवं श्रीमद्भगवद्गीता इति विषये संस्कृतेन पंच-पंच वाक्यानि लिखन्तु। 3. अधोलिखित शब्दरूपाणि टिप्पणीपुस्तिकायाम् लिखन्तु एवं कंठस्थी कुर्वन्तु-

		<p>(1) राम (2) लता (3) नदी (4) गुरु अथवा भानु (5) अस्मद् (6) युष्मद्।</p> <p>4. अधोलिखित धातुरूपाणि लिखन्तु एवं कंठस्थी कुर्वन्तु - गम्, पठ् एवं लिख् (पंचेषु लकारेषु)</p> <p>5. गीतापाठ-पंचदशः अध्यायः कण्ठस्थी कुर्वन्तु।</p> <p>6. विंशति दिनानि पर्यन्तं प्रतिदिनं एकं पृष्ठं संस्कृत-सुलेखं लिखन्तु।</p>
4	MATHEMATICS	<p>MATHS ACTIVITY:-</p> <p>1. As discussed about CVP (Chinmaya Vision Program)during class, correlate Chapter 1 & Ch 2 with all aspects of CVP.(Try maximum aspects to correlate with chapters).</p> <p>2. Prepare a model showing rules and example of CHAPTER -1 & CHAPTER-2.(Use A-4 sheet or Chart paper).</p> <p>SOLVE THE FOLLOWING:</p> <p>Q.1- Let x and y be rational and irrational numbers, respectively . Is $x + y$ necessarily an irrational number? Give an example in support of your answer .</p> <p>Q.2-Let x be rational and y be irrational. Is xy necessarily irrational? Justify your answer by an example.</p> <p>Q.3- Locate $\sqrt{13}$ on the number line.</p> <p>Q.4 Express 0.12333333... in the form p/q, where p and q are integers and $q \neq 0$.</p> <p>Q.5 Insert a rational number and an irrational number between the following :</p> <p>(i) 2 and 3 (ii) 0 and 0.1 (iii) $1/3$ and $1/2$</p> <p>Q. 6- Show that $0.142857142857... = 1/7$</p> <p>Q.7- Find the values of a and b in each of the following:</p> <p>(i) $\frac{5+2\sqrt{3}}{7+4\sqrt{3}} = a - 6\sqrt{3}$ (ii) $\frac{7+\sqrt{5}}{7-\sqrt{5}} - \frac{7-\sqrt{5}}{7+\sqrt{5}} = a + \frac{7}{11}\sqrt{5} b$</p> <p>Q.8-If $a = 2 + \sqrt{3}$, then find the value of $a - 1/a$.</p> <p>Q.9List up all the identities from Chapter -2.</p> <p>Q10.- If $x^2 + kx + 6 = (x + 2) (x + 3)$ for all x, then the value of k is?</p> <p>Q.11 If $p(x) = x + 3$, then $p(x) + p(-x) = ?$</p> <p>Q.12- If $x^{51} + 51$ is divided by $x + 1$, the remainder will be?</p> <p>Q.13 (i) (i) Without actually calculating the cubes, find the value of $48^3 - 30^3 - 18^3$. (ii) By Remainder Theorem find the remainder, when p(x) is divided by g(x), where (a) $p(x) = x^3 - 2x^2 - 4x - 1$, $g(x) = x + 1$ (b) $p(x) = x^3 - 3x^2 + 4x + 50$, $g(x) = x - 3$ (c) $p(x) = 4x^3 - 12x^2 + 14x - 3$, $g(x) = 2x - 1$</p>

		<p>(iii) Check whether $p(x)$ is a multiple of $g(x)$ or not :</p> <p>(i) $p(x) = x^3 - 5x^2 + 4x - 3$, $g(x) = x - 2$</p> <p>(ii) $p(x) = 2x^3 - 11x^2 - 4x + 5$, $g(x) = 2x + 1$</p> <p>Q.14. Factorise :</p> <p>(a) $x^2 + 9x + 18$ (b) $6x^2 + 7x - 3$ (c) $2x^2 - 7x - 15$ (d) $84 - 2r - 2r^2$</p> <p>Q.15. (i) Factorise :</p> <p>(a) $2x^3 - 3x^2 - 17x + 30$ (b) $x^3 - 6x^2 + 11x - 6$ (c) $x^3 + x^2 - 4x - 4$ (iv) $3x^3 - x^2 - 3x + 1$</p> <p>(ii) Using suitable identity, evaluate the following: (a) 103^3 (b) 101×102 (c) 999^3</p> <p>.</p> <p>** All homework must be done in class notebook.</p>
5	SCIENCE	<p>SECTION-A (Q.-Answer) Solve the following questions-</p> <p>Q.1. Write a brief note on nucleus.</p> <p>Q.2. Write the differences between diffusion and osmosis. Give examples too.</p> <p>Q.3. Write about the contribution of Robert Hooke.</p> <p>Q.4. Why cell is called basic unit of life?</p> <p>Q.5. Why lysosome is called suicidal bag of the cell?</p> <p>SECTION-B (Diagrams) Q. Draw the labelled diagrams of following from NCERT book -</p> <ul style="list-style-type: none"> ▪ Prokaryotic cell ▪ Types of connective tissues ▪ Types of muscles fibres ▪ Section of a stem ▪ Various types of simple tissues <p>SECTION-C (Activity) Q. Make a 3D model of CORONA Virus by using waste materials.</p> <p>CHEMISTRY</p> <ol style="list-style-type: none"> 1. What do you mean by intermolecular space and Intermolecular force of attraction? 2. What is the difference between Mass and Weight? 3. Why the water kept in an earthen pot becomes cold after some time? 4. What do you mean by mixture? How many types of mixture are there? Give example. 5. Make a table depicting differences between true solution, Suspension and Colloidal solutions?

		<p>ACTIVITY Make a project on “Daily life phenomenon involving evaporation” of at least 10A4 sheets.</p> <p>PHYSICS</p> <ol style="list-style-type: none"> 1. Derive all the three equation of motion by mathematical method. 2. Identify the kind of motion in the following cases: <ol style="list-style-type: none"> (i) A car moving with constant speed turning around a curve. (ii) An electron orbiting around nucleus. 3. An artificial satellite is moving in a circular orbit of radius 36,000 km. Calculate its speed if it takes 24 hours to revolve around the earth. 4. A car travels from stop A to stop B with a speed of 30 km/h and then returns back to A with a speed of 50 km/h. Find <ol style="list-style-type: none"> (i) displacement of the car. (ii) distance travelled by the car. (iii) average speed of the car. 5. (a) Differentiate between speed and velocity. (b) When is a body said to have uniform velocity? (c) How can we describe the position of an object? <p>ACTIVITY Find and write about the daily life example for the different types of motion all around you. (at least 10 examples)</p>
6	SOCIAL STUDIES	<ol style="list-style-type: none"> 1) Make map file from syllabus. 2) Every student has to compulsorily undertake one project on Disaster Management. 3) Learn PT 1 syllabus
7	COMPUTER	<ol style="list-style-type: none"> A. Draw the diagrams of LAN, PAN, WAN, MAN and explain them in detail. B. Write about three different types of transmission media and discuss the best medium on the basis of parameters like speed, attenuation, bandwidth and error rate.

CHINMAYA VIDYALAYA, NTPC, UNCHAHAR
SUMMER HOLIDAY HOMEWORK-(2021-22)
CLASS- X

S N O .	SUBJECT	HOME WORK
1	ENGLISH	<ol style="list-style-type: none"> 1. Write an Article on the topic "India - Five Years from now" in about 200-230 words (in A4 Size Sheet). 2. Read any one novel/ story book of your choice and write its Review in about 180-200 words (In A4 Size Sheet). 3. Create a Diary Entry in which you will write the diary of any one day when you had done a virtuous act like helping your mother, helping your father or anybody who needed your help instantly, in 150-180 words (in A4 Size Sheet). 4. Complete the question-answers of all the chapters taught till now in your English Literature notebook.
2	HINDI	<ol style="list-style-type: none"> 1. Chhatr 'Swasthy hi dhan hai' par Vyakaran ki copy me ek anuchched likhenge. 2. Chhatr Class magazine ke lie story, poem, natak, sansmaran, jeewan ki rochak ghatnayan adi me se koi ek likhenge. Paper ka size A4 hoga jisme left me 1inch ka margin hona chahie. Samagri ki likhwat achchhi aur susajjit honi chahie. Neeche chhatra ka name, class aur section likha hona chahie. 3. Chhatr Hindi ki koi bhi char kahaniyan padhenge jo pathy pustak me na ho aur usase milne wali seekh ke bare me apni sparsh ki note book me likhenge.
3	संस्कृतम्	<ol style="list-style-type: none"> 1. व्यायामस्य महत्वम् एवं वर्तमान समये श्रीमद्भगवद्गीतायाः महत्वम् इति विषये संस्कृतेन पंच-पंच वाक्यानि लिखन्तु । 2. प्रथमः पाठतः तृतीयः पाठ पर्यन्तं पाठं पठन्तु। (प्रथम

		<p>आवर्ती परीक्षायाः कृते)</p> <p>3. गीतापाठ-पंचदशः अध्यायः कण्ठस्थी कुर्वन्तु। 4. विंशति दिनानि पर्यन्तं प्रतिदिनं एकं पृष्ठं संस्कृत-सुलेखं लिखन्तु।</p>
4	<p>MATHEMATICS</p>	<p style="text-align: center;"><u>REAL NUMBERS</u></p> <p><u>1 MARK QUESTIONS :</u></p> <ol style="list-style-type: none"> 1. Give an example to show that the product of a rational and an irrational number may be a rational number. 2. Give an example to show that product of two irrational numbers may be a rational number. 3. State Euclid's division lemma. 4. State Fundamental Theorem of Arithmetic. 5. What is the HCF of two consecutive natural number? 6. Has the rational number $\frac{441}{2^2 \cdot 5^7 \cdot 7^2}$ a terminating or a non-terminating decimal representation? <p><u>2 MARKS QUESTIONS :</u></p> <ol style="list-style-type: none"> 7. Find the prime factorisation form of 13915. 8. The LCM of two co-prime numbers is 60. If one of the numbers is 4, find the second number. 9. Find the least number of four digits, which is exactly divisible by 14, 21 and 28 . 10. Find the LCM of 60 and 144 by prime factorisation method. 11. Express 32760 as the product of its prime factors. 12. Use Euclid's division algorithm to find the HCF of 4052 and 12576. 13. If the HCF of 55 and 99 is expressible in the form $55m + 99$, then find the value of m. <p><u>3 MARKS QUESTIONS :</u></p> <ol style="list-style-type: none"> 14. Find the largest number, which will divide 625 and 1433 leaving remainder as 5 and 3 respectively. 15. Find the largest number, which divides 336 and 897 leaving remainder as 6 in each case 16. Find the greatest number that will divide 44, 107 and

125, so as to leave the same remainder in each case.

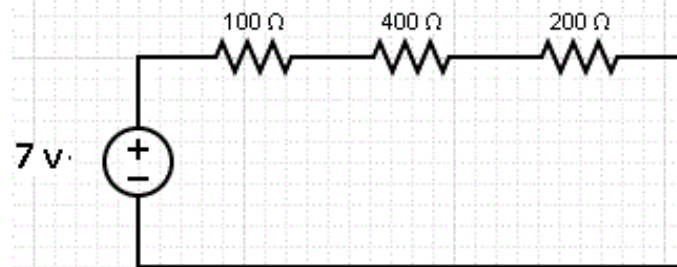
17. If the HCF of 657 and 963 is expressible in the form $657n + 963 \times (-15)$, then find the value of n .
18. If the HCF of 408 and 1032 is expressible in the form $1032m - 408 \times 5$, then find the value of m .
19. Find the largest number which divides 245 and 1029 leaving remainder 5 in each case.
20. Find the HCF and LCM of 90 and 144 by the prime factorization method.
21. Find the greatest number of 6 digits exactly divisible by 24, 15 and 36
22. Find the HCF of 38,220 and 196 .
23. Find the least number, which when divided by 40, 50 and 60 leaves remainder as 7 .
24. Find the largest number that will divide 2053 and 967 and leaves a remainder of 5 and 7 respectively.
25. Use Euclid's division algorithm to find the HCF of 210 and 55.
26. Prove that $5+\sqrt{3}$ is an irrational number.
27. Find the HCF of 480 and 404 by prime factorisation method. Hence, find their LCM.
28. Two tankers contain 500 litres and 380 litres of petrol respectively. Find the maximum capacity of a container that can be used to measure the petrol of both tankers.
29. Prove that $\sqrt{3} - \sqrt{2}$ is an irrational number.
30. Prove that $\sqrt{3} + \sqrt{5}$ is an irrational number.

4 MARKS QUESTIONS :

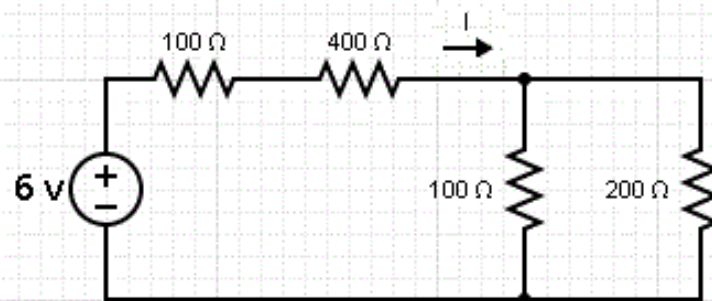
31. Prove that there is no natural number for which 4^n ends with the digit zero.
32. Use the division algorithm to find the quotient $q(y)$ and remainder $r(y)$, when $f(y) = 8y^4 - 12y^3 - 2y^2 + 15y - 4$ is divided by $g(y) = 2y^2 - 3y + 1$.
33. Show that the square of any positive integer is of the form $3m$ or $3m+1$ for some integer m .
34. Show that any positive integer is of the form $3q$ or $3q+1$ or $3q+2$ for some integer q .
35. Prove that one of every three consecutive positive integers is divisible by 3.
36. Show that $n^2 + n$ is divisible by 2 for every positive

		integer n.
5	SCIENCE	<p style="text-align: center;">BIOLOGY</p> <p>Solve the following questions-</p> <p>Q.1. How does amoeba obtains its food?</p> <p>Q.2. Write the differences between light and dark reactions.</p> <p>Q.3. What are sunken stomata?</p> <p>Q.4.Explain, how does synthesis of food take place in plants?</p> <p>Q.5. Leaves of a healthy potted plant were coated with Vaseline to block the stomata. Will this plant remain healthy for long? State any three reasons for your answer.</p> <p>Q. Draw the labelled diagrams of following from NCERT book-</p> <ul style="list-style-type: none"> ➤ Human Respiratory System ➤ Structure of Nephron ➤ Reflex Arc ➤ Human Heart ➤ Human Female Reproductive System <p style="text-align: center;">ACTIVITY</p> <p>Q. Make a 3D model of CORONA Virus by using waste materials.</p> <p style="text-align: center;">CHEMISTRY</p> <ol style="list-style-type: none"> 1. Why should a Magnesium ribbon be rubbed properly before burning in air? 2. Explain double displacement reaction with illustrative diagram. 3. What is oxidation reaction? Give an example. Define reducing and oxidising agent with appropriate example? 4. What are Indicators? Define its types with appropriate examples. 5. Define Arrhenius concept of Acids and Bases? Give 3 examples of each organic and inorganic acid. <p style="text-align: center;">ACTIVITY</p> <p>Prepare a Natural Indicator at your Home and also note down your observation of its effect over acids and bases.</p> <p style="text-align: center;">PHYSICS</p> <ol style="list-style-type: none"> 1. There are three resistors joined in series in a system having resistance equal to 10 Ω, 20 Ω and 30 Ω respectively. If the potential difference of the circuit is 240 V, find the total resistance and current through the circuit.

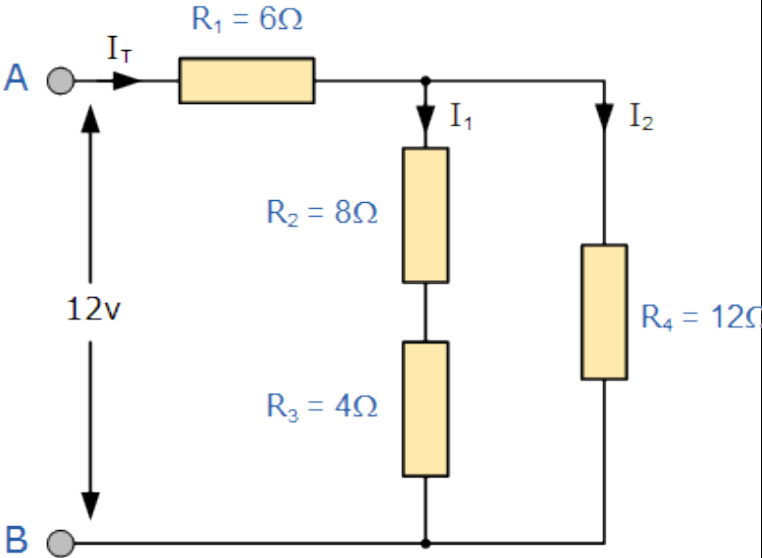
2. There are two electric lamps M and N which are joined in a series having resistance equal to $15\ \Omega$ and $20\ \Omega$ respectively. If the potential difference between two terminals of electric circuit is 220V , find the total resistance and electric current through the circuit. Also find the potential difference across the two lamps separately.
3. There are two resistors R_1 and R_2 having resistance equal to $20\ \Omega$ and $30\ \Omega$ respectively are connected in parallel in an electric circuit. If the potential difference across the electric circuit is $5\ \text{V}$, find the electric current flowing through the circuit and the total resistance of the resistors.
4. What resistance x in parallel with resistances $100\ \Omega$ and $200\ \Omega$ gives an equivalent resistance of $50\ \Omega$?
5. Study the following circuits and find values in each case.
 - a) Equivalent resistance
 - b) Total current
 - c) Current in each resistance
 - d) Voltage across each resistances



(a)



(b)

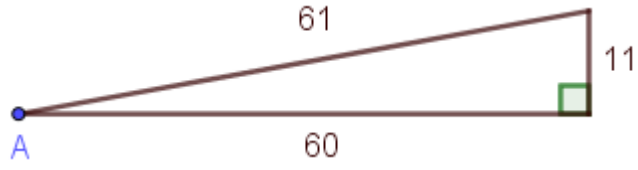
		 <p style="text-align: center;">(c)</p> <p>ACTIVITY</p> <p>Derive the expression for equivalent resistance for series and parallel combination on A4 size paper.</p>
6	SOCIAL SCIENCE	<p>1).Every student has to compulsorily undertake any one project on the following topics: Consumer Awareness OR Social Issues OR Sustainable Development 2).Make map file from syllabus. 3) Learn PT 1 syllabus</p>
7	COMPUTER	<p>A. Write a short note on Cyber Ethics focussing on reasons of fraud and ways to prevent it. B. Create a web page by including a picture related to corona virus and the methods of its prevention. Write the methods using tags like font color, size, b ,I, u etc</p>

HOLIDAY HOMEWORK

CLASS - XI

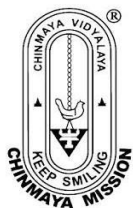
S.NO.	SUBJECT	HOMEWORK
1	ENGLISH	<p>On A4 size paper prepare a write up in about 250-300 words on the topics given with every lesson of Hornbill book (Lesson 1 to 4)</p> <p>Read the story- The Mark of Vishnu by Khushwant Singh.</p>
2	HINDI	<ol style="list-style-type: none"> Chhatr 'Corona se bachaw' par Vyakaran ki copy me ek nibandh likhenge. Chhatr Class magazine ke lie aalekh, rachnatmak lekh, story, poem, natak, sansmaran, jeewan ki rochak ghatnayan adi me se koi ek likhenge. Paper ka size A4 hoga jisme left me 1inch ka margin hona chahie. Samagri ki likhwat achchhi aur susajjit honi chahie. Neeche chhatra ka name, class aur section likha hona chahie. Chhatr Vitan me sankalit path 'Aalo Andhari' padhenge aur aise 10 prashno ka nirman karenge jo path ke ant me na ho aur uske uttar bhi likhenge.
3	MATHS	<ol style="list-style-type: none"> Let $A = \{0, a, b\}$. Write a set equivalent to A. Write set $\{14, 21, 28, 35, 42, \dots, 98\}$ in set-builder form. Write the set of integers between -5 and 5 in roster form & set-builder form. Write set $A = \{x: x \text{ is a whole number less than } 11\}$ in roster form. Write the set $\{x : x \text{ is an even prime number}\}$ in roster form. Write the set $\{3, 6, 9, 12, \dots\}$ in set builder form. Which of the following are examples of the null set <ol style="list-style-type: none"> Set of odd natural numbers divisible by 2 Set of even prime numbers $\{x : x \text{ is a natural numbers, } x < 5 \text{ and } x > 7\}$ $\{y : y \text{ is a point common to any two parallel lines}\}$ Which of the following sets are finite or infinite <ol style="list-style-type: none"> The set of months of a year $\{1, 2, 3, \dots\}$ $\{1, 2, 3, \dots, 99, 100\}$ The set of positive integers greater than 100 The set of prime numbers less than 99 State whether each of the following set is finite or infinite: <ol style="list-style-type: none"> The set of lines which are parallel to the x-axis The set of letters in the English alphabet

		<p>(iii) The set of numbers which are multiple of 5 (iv) The set of animals living on the earth (v) The set of circles passing through the origin (0,0)</p> <p>10. In the following, state whether $A = B$ or not: (i) $A = \{ a, b, c, d \}$ $B = \{ d, c, b, a \}$ (ii) $A = \{ 4, 8, 12, 16 \}$ $B = \{ 8, 4, 16, 18 \}$ (iii) $A = \{ 2, 4, 6, 8, 10 \}$ $B = \{ x : x \text{ is positive even integer and } x \leq 10 \}$ (iv) $A = \{ x : x \text{ is a multiple of } 10 \}$, $B = \{ 10, 15, 20, 25, 30, \dots \}$</p> <p>11. Are the following pair of sets equal ? Give reasons. (i) $A = \{ 2, 3 \}$, $B = \{ x : x \text{ is solution of } x^2 + 5x + 6 = 0 \}$ (ii) $A = \{ x : x \text{ is a letter in the word FOLLOW} \}$ $B = \{ y : y \text{ is a letter in the word WOLF} \}$</p> <p>12. From the sets given below, select equal sets : $A = \{ 2, 4, 8, 12 \}$, $B = \{ 1, 2, 3, 4 \}$, $C = \{ 4, 8, 12, 14 \}$, $D = \{ 3, 1, 4, 2 \}$ $E = \{ -1, 1 \}$, $F = \{ 0, a \}$, $G = \{ 1, -1 \}$, $H = \{ 0, 1 \}$</p>
4	PHYSICS	<p style="text-align: center;">CHAPTER- MATHEMATICAL TOOLS</p> <p>Solve the following numerical.</p> <p>1. Differentiate the following expressions (with respect to x):</p> <ol style="list-style-type: none"> 1. $(8x+7)e^x$ 2. $(6x^2+2x+5)$ 3. $\text{Sin}x \cdot \text{log}x$ 4. $(-7x^2-5x) \text{cos}x$ 5. e^x-8x+7 6. $(4x^2-3x-7)$ <p>2. Differentiate the following expressions (with respect to x):</p> <ol style="list-style-type: none"> 1. $(x+9)^3$ 2. $\text{Sin}x+\text{log}x+e^x$ 3. $\sqrt{(2x+x^2)}$ 4. $e^x \cdot \text{sin}x$ 5. $x^2 \cdot \text{sin}x$ 6. $e^x \text{log}x$

		<p>3. Find the following values:</p> <p>(i) $\sin(A) = \dots\dots\dots?$, $\tan A = \dots\dots?$</p>  <p>(ii) $\sin^2(43^\circ) + \cos^2(43^\circ) =$</p> <p>(iii) Find $\cos\alpha$, $\tan\alpha$ and $\cot\alpha$ if $\sin\alpha = \frac{5}{13}$, $90^\circ < \alpha < 180^\circ$</p>
5	CHEMISTRY	<p>. 1. How many Significant figures in each term?</p> <p>a. 34.6209 b. 0.003048 c. 5010.0 d. 4032.090</p> <p>2. Solve the following equations using the correct number of significant figures.</p> <p>a. $34.683 + 58.930 + 68.35112$ b. $45001 - 56.355 - 78.44$ c. $0.003 + 3.5198 + 0.0118$ d. $36.01 - 0.4 - 15$</p> <p>3. How many significant figures in each term?</p> <p>a. 1.40×10^3 b. 6.01 c. 02947.1 d. 583.02</p> <p>4. Mention whether the following are elements, compounds or mixtures:</p> <p>a. glass b. German Silver c. Lime Stone d. Pure gold e. Diamond f. Glucose g. Salt solution h. helium i. oxygen j. water</p> <p>5. Mention whether the following mixtures are homogeneous or heterogeneous:</p> <p>a. Sugar solution b. Milk c. brass d. glass e. coin f. LPG</p> <p>6. Mention whether the following are metals, nonmetal and metalloids. Gold, Oxygen, Silicon, Silver Carbon, Boron, Copper, Hydrogen, Arsenic, Iron, Nitrogen, Antimony, Mercury, Sulfur, Germanium, Zinc, Phosphorus</p>

		<p>7. Write the properties of solid, liquid and gas.</p> <p>8. Write two points of difference between: Condensation and Evaporation</p> <p>9. What is a Compound?</p> <p>10. What are the Elements?</p>
6	BIOLOGY	<p>SECTION-A (Q.-Answer)</p> <p>Q.1. Explain the term Biodiversity.</p> <p>Q.2. How is the process of locomotion in livings and nonliving different?</p> <p>Q.3. Why are living organisms classified?</p> <p>Q.4. Write and learn the scientific names of any ten animals and plants separately.</p> <p>Q.5. Write the contribution/contributions of any four biologists of India.</p> <p>Q.6. Explain the binomial system of nomenclature.</p> <p>Q.7. Define 'generic name' and 'specific epithet'.</p> <p>Q.8. What is nomenclature?</p> <p>Q.9. What is the need to classify organisms?</p> <p>Q.10. 'Fungi' is a txa or not. Explain.</p> <p>SECTION-B (Activity)</p> <p>1. Make a herbarium file including any six plants/plant parts. Some examples are given here: Rose, Tulsi, Neem, Doob grass, Coriander, Paddy, Any one tap root, Any one fibrous root, Any leaf.</p> <p>2. Make a project on "Effects of COVID -19 on human population".</p>
7	COMPUTER	<p>Revise the topics and complete the coding of Python which has been discussed till date.</p>
8	PHYSICAL EDUCATION	<p>01. Physical Fitness Test - 6 Marks</p> <p>02. Proficiency in Games and Sports (Skill of any one Game of choice from the given list*) - 7 Marks</p> <p>03. Yogic Practices - 7 Marks</p> <p>04. Record File ** - 5 Marks</p> <p>05. Viva Voce (Health/ Games & Sports/ Yoga) - 5 Marks</p> <p>* Football, Volleyball, Yoga, **Record file</p> <p>Practical-1: Labelled diagram of 400 M Track & Field with computations.</p> <p>Practical-2: Computation of BMI from family or neighbourhood & graphical representation of the data.</p> <p>Practical-3: Labelled diagram of field & equipment of any one game of your choice out of the above list.</p> <p>Practical-4: List of current National Awardees (Dronacharya</p>

		Award, Arjuna Award & Rajiv Gandhi Khel Ratna Award) Practical-5: Pictorial presentation of any five Asanas for improving concentration.
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CHINMAYA VIDYALAYA, NTPC, UNCHAHAR
SUMMER HOLIDAY HOMEWORK-(2021-22)
CLASS - XII

S. N O	SUBJECT	HOME WORK
1	ENGLISH	<p>Complete question answers of Lesson 1&2 Complete question answers of poems- My Mother at Sixty six and An elementary school class room in a slum. Write on the topics given with Lesson 1 and 2.</p>
2	CHEMISTRY	<ol style="list-style-type: none"> 1. Which stoichiometric defect in crystals increases the density of a solid? (Delhi) 2011 2. What is meant by 'doping' in a semiconductor? (Delhi) 2012 3. How may the conductivity of an intrinsic semiconductor be increased? (All India) 2012 4. Which stoichiometric defect increases the density of a solid? (All India) 2012 5. How many atoms constitute one unit cell of a face-centered cubic crystal? (Delhi) 2013 6. What type of substances would make better Permanent Magnets: Ferromagnetic or Ferrimagnetic? (Delhi) 2013 7. What is the formula of a compound in which the element Y forms ccp lattice and atoms of X occupy 1/3rd of tetrahedral voids? (Delhi) 2015 8. What is the formula of a compound in which the element Y forms ccp lattice and atoms of X occupy 2/3rd of tetrahedral voids? (All India) 2015 9. An element X crystallizes in f.c.c structure. 208 g of it has 4.2832×10^{24} atoms. Calculate the edge of the unit cell, if density of X is 7.2 g cm^{-3}. (Comptt. Delhi) 2012 10. (a) Why does presence of excess of lithium makes LiCl crystals pink?

- (b) A solid with cubic crystal is made of two elements P and Q. Atoms of Q are at the corners of the cube and P at the body-centre. What is the formula of the compound? (All India) 2013
11. If NaCl is doped with 10^{-3} mole percent SrCl_2 , what will be the concentration of cation vacancies?
($N_A = 6.02 \times 10^{23} \text{ mol}^{-1}$) (Comptt. All India) 2013
12. An element crystallizes in a structure having fee unit cell of an edge 200 pm. Calculate the density if 200 g of this element contains 24×10^{23} atoms.
(Comptt. All India) 2013
13. An element with density 2.8 g cm^{-3} forms a f.c.c. unit cell with edge length $4 \times 10^{-8} \text{ cm}$. Calculate the molar mass of the element.
(Given : $N_A = 6.022 \times 10^{23} \text{ mol}^{-1}$) (All India) 2014
14. (i) Write the type of magnetism observed when the magnetic moments are aligned in parallel and anti-parallel directions in unequal numbers.
(ii) Which stoichiometric defect decreases the density of the crystal?
(All India) 2014
15. Calculate the number of unit cells in 8.1 g of aluminium if it crystallizes in a face-centered cubic (f.c.c.) structure. (Atomic mass of Al = 27 g mol^{-1})
(Comptt. All India) 2017
16. Iron has a body centred cubic unit cell with a cell edge of 286.65 pm. The density of iron is 7.87 g cm^{-3} . Use this information to calculate Avogadro's number (At. mass of Fe = 56 g mol^{-1}). (Delhi & All India) 2009
17. Silver crystallises with face-centred cubic unit cells. Each side of the unit cell has a length of 409 pm. What is the radius of an atom of silver? (Assume that each face atom is touching the four coner atoms.) (All India)

2009

18. The density of copper metal is 8.95 g cm^{-3} . If the radius of copper atom is 127.8 pm, is the copper unit cell a simple cubic, a body-centred cubic or a face centred cubic structure?

(Given : At. mass of Cu = 63.54 g mol^{-1} and $N_A = 6.02 \times 10^{23} \text{ mol}^{-1}$) (Delhi & All India) 2010

19. Silver crystallizes in face-centered cubic unit cell. Each side of this unit cell has a length of 400 pm. Calculate the radius of the silver atom. (Assume the atoms just touch each other on the diagonal across the face of the unit cell.

That is each face atom is touching the four corner atoms.) (Delhi) 2011

20. The density of lead is 11.35 g cm^{-3} and the metal crystallizes with fcc unit cell. Estimate the radius of lead atom.

(At. Mass of lead = 207 g mol^{-1} and $N_A = 6.02 \times 10^{23} \text{ mol}^{-1}$) (Delhi) 2011

21. An element occurs in bcc structure. It has a cell edge length of 250 pm.

Calculate the molar mass if its density is 8.0 g cm^{-3} . Also calculate the radius of an atom of this element. (Comptt. Delhi) 2013

22. An element with molar mass 27 g mol^{-1} forms a cubic unit cell with edge length $4.05 \times 10^{-8} \text{ cm}$. If its density is 2.7 g cm^{-3} , what is the nature of the cubic unit cell? (Delhi) 2015

23. An element crystallizes in a f.c.c. lattice with cell edge of 250 pm. Calculate the density if 300 g of this element contains

2×10^{24} atoms. (Delhi) 2015

24. Differentiate between molality and molarity of a solution. What is the effect of change in temperature of a solution on its molality and molarity? (Delhi 2009)

25. Explain why aquatic species are more comfortable in cold water rather than in warm water. (Comptt. Delhi 2012)

26. State Henry's law and mention two of its important applications. (Comptt. All India 2012)

27. What is the molality of a solution made by adding 9.5g of NaCl to 300g of water?

28. What is the molarity of a solution containing 750ml of solution containing 35g of MgCO_3 ?

29. What do you understand by saying that molality of a solution is 0.2?

30. Calculate the mole fraction of benzene in solution containing 30% by mass in CCl_4 .
31. Calculate the mass of ethanol which is present in 500g of 1.6m solution of ethanol in water.
32. Calculate molality of an aerated drink having 2.5 gm of carbonic acid dissolved in 150 gm of water.
33. One molal solution of a given solvent is always less concentrated than one molar solution. Explain.
34. A solution is obtained by mixing 300g of 25% and 400g of 40% solution by mass. Calculate the mass percentage of the resulting solution.
35. Find molarity of a conc. H_2SO_4 sample having density 1.9 g/ml and is 99% pure by weight.
36. A solid has bcc structure. Distance of closest approach between two atoms is 1.73\AA . Find edge length of cell.
37. A solid is made of two elements A and B. Atoms of element A occupy all the tetrahedral sites while atoms of element B are in ccp arrangement from this data find the formula of the compound.
38. What is rank? Find rank of face centered cubic unit cell.
39. Analysis shows that nickel oxide has the formula $\text{Ni}_{0.98}\text{O}_{1.00}$. What fraction of nickel exists as Ni^{2+} & Ni^{3+} ions?
40. Gas (A) is more soluble in water than gas (B) at the same temperature. Which one of the two gases will have the higher value of the K_H (Henry's constant) and why?

3

PHYSICS

Sub.- physics(042)

Chapter 1- electric charge and electric field

1 Mark Questions:

Q.1. Which orientation of an electric dipole in a uniform electric field would correspond stable equilibrium?

Q.2. Define electric dipole moment. Write its S.I. unit.

Q.3. A charge 'q' is placed at the center of a cube of side l . What is the electric flux passing through each face of the cube?

Q.4. Two charges of magnitudes $-2Q$ and $+Q$ are located at points $(a,0)$ and $(4a,0)$ respectively. What is the electric flux due to these charges through a sphere of radius ' $3a$ ' with its center at the origin?

Q.5. What is the force between two small charges of $2 \times 10^{-7} \text{C}$ placed 30 cm apart in air?

Q.6. A plot of magnetic flux (ϕ) versus current (I) is shown in the figure for two inductors A and B. Which of the two has larger value of self-inductance?

Q.7. Figure shows three point charges, $+2q$, $-q$ and $+3q$. Two charges $+2q$ and $-q$ are enclosed within a surface ' S '. What is the electric flux due to this configuration through the surface ' S '?

Q.8. Why should electrostatic field be zero inside a conductor?

2 Marks Questions:

Q.9. Define electric flux. Write its S. I. unit. A charge q is enclosed by a spherical of radius R . if the radius is to half, how would the electric flux through the surface change?

Q.10. A spherical conducting shell of inner radius r_1 and outer radius r_2 has a charge

' Q '. A Charge ' q ' is placed at the center of the shell.

(a) What is the surface charge density on the (i) inner surface, (ii) outer surface of the shell?

(b) Write the expression for the electric field rice at a point $x > r_2$ from the center of the shell.

Q.11. Show that the electric at the surface of a charged conductor is given by $\vec{E} = \frac{\sigma}{\epsilon_0} \hat{n}$, where is the charge density is a unit vector normal to the surface in the outward direction.

Q.12. A thin straight infinitely long conducting wire having charge density λ is enclosed by a cylindrical surface of radius r and length l , its axis coinciding with the length of the wire. Find the expression for the electric flux through the surface of the cylinder.

Q.13. Plot a graph showing the variation of coulomb

force (F) versus $\left(\frac{1}{r^2}\right)$, where r is the distance between the two charges of each pair of charges:
(1 μC , 2 μC) and (2 μC , -3 μC), interpret the graphs obtained

Q.14. An electric dipole is held in a uniform electric field.

(i) Show that the net force acting on it is zero.

(ii) The dipole is aligned to the field. Find the work done in rotating it through the angle of 180°.

Q.15. Considering the case of a parallel plate capacitor being charged, show how one is required to generalize Ampere's circuital law to include the term due to displacement current.

Q.16. An infinite number of charges, each of coulomb, are placed along x-axis at $x = 1\text{m}, 3\text{m}, 9\text{m}$ and so on. Calculate the electric field at the point $x = 0$ due to these charges if all the charges are of the same sign.

Q.17. A sphere S_1 of radius r_1 encloses a charge Q, if there is another concentric sphere S_2 of the radius r_2 ($r_2 > r_1$) and there are no additional charges between S_1 and S_2 . Find the ratio of electric flux through S_1 and S_2 .

Q.18. Two small identical electrical dipoles AB and CD, each of dipole moment 'p' are kept at an angle of 120° as shown in the figure. What is the resultant dipole moment of this combination? If this system is subjected to electric field (\vec{E}) directed along + X direction, what will be the magnitude and direction of the torque acting on this?

Q.19. A hollow cylindrical box of length 1m and area of cross-section 25cm^2 is placed in a three-dimensional coordinate system as shown in the figure. The electric field in the region is given by $\vec{E} = 50x\hat{i}$, where E is in NC^{-1} and x is in metres. Find:

(i) Net flux through the cylinder.

(ii) Charge enclosed by the cylinder.

Q.20. Given a uniform electric field $\vec{E} = 5 \times 10^3 \hat{i} \text{ N/C}$, find the flux of this field through a square of 10 cm on a side whose plane is parallel to the y - z plane. What would be the flux through the same square if the plane makes a 30° angle with the x-axis?

Q.21. An electric dipole of length 4cm, when placed with its axis making an angle of 60° with a uniform

electric field, experiences a torque of $4\sqrt{3}$ Nm. Calculate the potential energy of the dipole, if it has charge $\pm 8\text{nC}$.

3 Marks Questions:

Q.22. A positive point charge (+q) is kept in the vicinity of an uncharged conducting plate. Sketch electric field lines originating from the point on to the surface of the plate. Derive the expression for the electric field at the surface of a charged conductor.

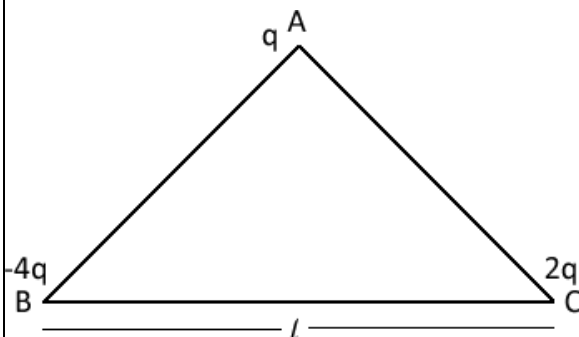
Q.23. State Gauss's theorem in electrostatics. Apply this theorem to derive an expression for electric field intensity at a point outside a uniformly charged thin spherical shell.

Q.24. A thin conducting spherical shell of radius R has charge Q spread uniformly over its surface. Using Gauss's law, derive an expression for an electric field at a point outside the shell. Draw a graph of electric field E(r) with distance r from the centre of the shell for $0 \leq r \leq \infty$.

Q.25. Using Gauss's law obtain the expression for the electric field due to a uniformly charged thin spherical shell of radius R at a point outside the shell. Draw a graph showing the variation of electric field with r, for $r > R$ and $r < R$.

Q.26. (i) Derive the expression for electric field at a point on the equatorial line of an electric dipole.
(ii) Depict the orientation of the dipole in (i) stable, (ii) unstable equilibrium in a uniform electric field.

Q.27. (a) Three point charges q, -4q and 2q are placed at the vertices of an equilateral triangle ABC of side 'l' as shown in the figure. Obtain the expression for the magnitude of the resultant electric force acting on the charge q.



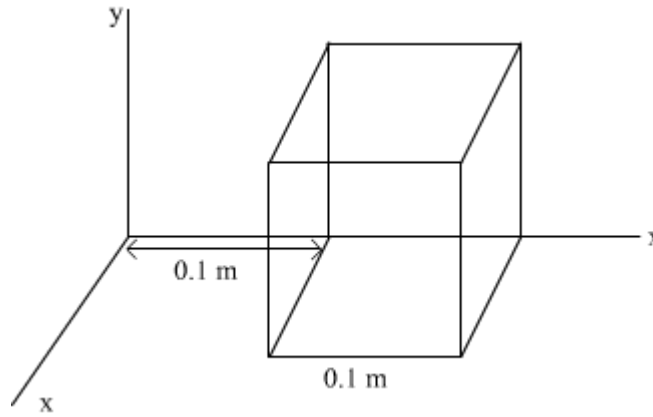
(b) Find out the amount of the work done to separate the

charges at infinite distance.

5 Marks Questions:

Q.28. (a) Define electric flux. Write its SI units.

(b) The electric field components due to a charge inside the cube of side 0.1 m are as shown:



$$E_x = \alpha x, \alpha = 500 \text{ N/C-m}$$

$$E_y = 0, E_z = 0.$$

Calculate (i) the flux through the cube, and (ii) the charge inside the cube.

Q.29. (a) Define electric dipole moment. Is it a scalar or a vector? derive the expression for the electric field of a dipole at a point on the equatorial plane of the dipole.

(b) Draw the equipotential surfaces due to an electric dipole. Locate the points where the potential due to the dipole is zero.

Q.30. Using Gauss' law deduce the expression for the electric field due to a uniformly charged spherical conducting shell of radius R at a point (i) outside and (ii) inside the shell. Plot a graph showing variation of electric field as a function of $r > R$ and $r < R$. (r being the distance from the center of the shell)

Q.31. (a) Derive an expression for the electric field E due to a dipole of length "2a" at a point distant r from the center of the dipole on the axial line.

(b) Draw a graph of E versus r for $r \gg a$.

(c) If this dipole were kept in a uniform external electric field E_0 , diagrammatically represent the position of the dipole in stable and unstable equilibrium and write the expressions for the torque acting on the dipole in both the cases.

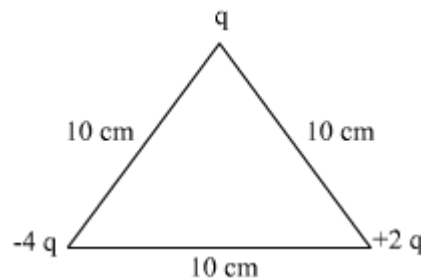
Q.32. (a) Use Gauss's theorem to find the electric field due to a uniformly charged infinitely large plane thin sheet with surface charge density σ . (b) An infinitely large thin plane sheet has a uniform surface

charge density $+\sigma$. Obtain the expression for the amount of work done in bringing a point charge q from infinity to a point, distance r , in front of the charged plane sheet.

Q.33. (a) Derive an expression for the torque experienced by an electric dipole kept in a uniform electric field.

(b) Calculate the work done to dissociate the system of three charges placed on the vertices of a triangle as shown.

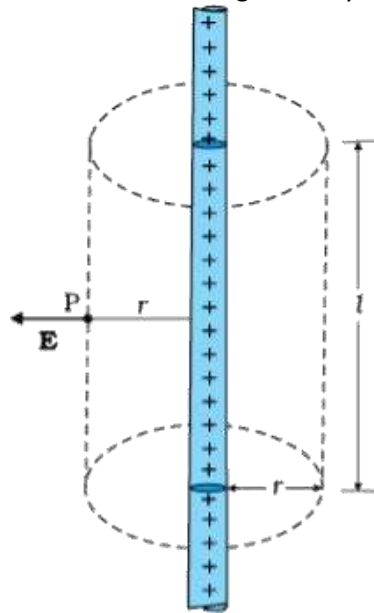
Here $q = 1.6 \times 10^{-10} \text{C}$



Q.34. (a) Define electric flux. Write its S.I. units.

(b) Using Gauss's law, prove that the electric field at a point due to a uniformly charged infinite plane sheet is independent of the distance from it.

Q.35. (a) Use Gauss' law to derive the expression for the electric field (\vec{E}) due to a straight uniformly charged infinite line of charge density $\lambda \text{C/m}$.



(b) Draw a graph to show the variation of E with perpendicular distance r from the line of charge.

(c) Find the work done in bringing a charge q from

perpendicular distance
 r_1 to r_2 ($r_2 > r_1$)

4 MATHS

Relations and Functions

1. Show that the relation R defined by $R = \{(a, b) : a - b \text{ is divisible by } 3; a, b \in \mathbb{N}\}$ is an equivalence relation
2. Prove that relation R in the set $A = \{1, 2, 3, 4, 5\}$ given by $R = \{(a, b) : |a - b| \text{ is even}\}$, is an equivalence relation.
3. Let $f : \mathbb{N} \rightarrow \mathbb{N}$ be defined by $f(n) = \begin{cases} \frac{n+1}{2} & , \text{ if } n \text{ is odd} \\ \frac{n}{2} & , \text{ if } n \text{ is even} \end{cases}$ for all $n \in \mathbb{N}$.
Find whether the function f is bijective.
4. Show that the relation R in the set of real numbers, defined as $R = \{(a, b) : a \leq b^2\}$ is neither reflexive, nor symmetric, nor transitive.
5. Let $f : \mathbb{R} \rightarrow \mathbb{R}$ be defined by $f(x) = (3 - x^3)^{1/3}$, then find $f \circ f(x)$.
6. If $f : \mathbb{R} \rightarrow \mathbb{R}$ and $g : \mathbb{R} \rightarrow \mathbb{R}$ are given by $f(x) = \sin x$ and $g(x) = 5x^2$, find $g \circ f(x)$.
7. Let Z be a set of all integers and R be a relation on Z defined as $R = \{(a, b) : a, b \in \mathbb{Z} \text{ and } (a - b) \text{ is divisible by } 5\}$. Prove that R is an equivalence relation.
8. Show that $f : \mathbb{N} \rightarrow \mathbb{N}$ be defined by
 a. $f(n) = \begin{cases} n + 1, & \text{if } n \text{ is odd} \\ n - 1, & \text{if } n \text{ is even} \end{cases}$ is bijective, for all $n \in \mathbb{N}$.
9. Consider $f : \mathbb{R}_+ \rightarrow [4, \infty)$ given by $f(x) = x^2 + 4$. Show that f is invertible with the inverse of f given by $f^{-1}(y) = \sqrt{y - 4}$, where \mathbb{R}_+ is the set of all non-negative real numbers.
10. Prove that the relation R in the set $A = \{5, 6, 7, 8, 9\}$ given by $R = \{(a, b) : |a - b| \text{ is divisible by } 2\}$ is an equivalence relation. Find the equivalence class of [6].
11. Let $A = \{1, 2, 3, 4, 5, 6, 7, 8, 9\}$ and R be a relation in $A \times A$ defined by $(a, b) R (c, d)$ if $a + d = b + c$ for $(a, b), (c, d)$ in $A \times A$. Prove that R is an equivalence relation. Also obtain the equivalence class $[(2, 5)]$.
12. If the function $f : \mathbb{R} \rightarrow \mathbb{R}$ be given by $f(x) = x^2 + 2$ and $g : \mathbb{R} \rightarrow \mathbb{R}$ be given by $g(x) = \frac{x}{x-1}, x \neq 1$ then find $f \circ g$ and $g \circ f$. Hence find $f \circ g(2)$ and $g \circ f(-3)$.
13. Let $f : \mathbb{W} \rightarrow \mathbb{W}$, be defined as $f(x) = x - 1$, if x is odd and $f(x) = x + 1$, if

		<p>x is even . Show that f is invertible . Find the inverse of f , where W is the set of all whole numbers .</p> <p>14. Show that the relation R defined by $(a , b) R (c , d)$ iff $a+d = b +c$ on the $A \times A$ where $A = \{ 1,2,3,4,5 ,6,7,8,9 , 10 \}$ is an equivalence relation . Hence obtain the equivalence class $[(3 , 4)] ; a , b , c , d \in A .$</p> <p>15. Let $f : \mathbb{N} \rightarrow \mathbb{N}$ be a function defined as $f(x) = 4x^2 + 12x + 15$. Show that $f : \mathbb{N} \rightarrow S$ is invertible (where S is range of f) . Find the inverse of f and hence obtain $f^{-1}(31)$ and $f^{-1}(87)$.</p> <p>16. If $f , g : \mathbb{R} \rightarrow \mathbb{R}$ be two functions defined as $f(x) = x + x$ and $g(x) = x - x$, for all $x \in \mathbb{R}$. Find $f \circ g$ and $g \circ f$. Hence find $f \circ g(-3)$, $f \circ g(5)$ and $g \circ f(-2)$.</p> <p>17. Let $A = \mathbb{R} - \{-\frac{4}{3}\}$ and $B = \mathbb{R} - \{\frac{4}{3}\}$. Consider the function $f : A \rightarrow B$ defined by $f(x) = \frac{4x+3}{3x+4}$. Show that f is one-one and onto . Hence find inverse of f .Also find $f^{-1}(0)$ and x such that $f^{-1}(x)=2$.</p> <p>18. Let $A = \mathbb{R} - \{3\}$ and $B = \mathbb{R} - \{1\}$. Consider the function $f : A \rightarrow B$ defined by $f(x) = \frac{x-2}{x-3}$. Show that f is one-one and onto . Hence find inverse of f . Also find $f^{-1}(7)$ and x such that $f^{-1}(x)=4$.</p> <p>19. Consider $f : \mathbb{R}_+ \rightarrow [-5 , \infty)$ given by $f(x) = 9x^2 + 6x - 5$. Show that f is invertible with</p> $1. f^{-1}(y) = \frac{-1+\sqrt{y+6}}{3}$ <p>Also find $f^{-1}(10)$ and y such that $f^{-1}(y)=4/3$.</p> <p>20. Show that function $f : \mathbb{R} \rightarrow \mathbb{R}$ defined by $f(x) = \frac{x}{x^2+1}$ is neither one-one nor onto. Also if $g : \mathbb{R} \rightarrow \mathbb{R}$ defined as $g(x) = 2x-1$, find $f \circ g(x)$.</p>
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5	BIOLOGY	<p style="text-align: center;">SUBJECT- BIOLOGY SECTION-A (Q.-Answer)</p> <p>Q.1. Why dogs and cats have oestrus cycle but human beings have menstrual cycle, though all are mammals?</p> <p>Q.2. Explain any two devices by which autogamy is prevented in flowering plants.</p> <p>Q.3. State the difference between meiocyte and gamete with respect to Chromosome number. Why is whiptail lizard referred as parthenogenetic?</p> <p>Q.4. How does the floral pattern of Mediterranean <i>Orchid ophrys</i></p>
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		<p>guaranteed Cross pollination? Q.5. Differentiate between spermatogenesis and oogenesis. Q.6. Which is better mode of reproduction, sexual or asexual? Why? Q.7. Draw a diagrammatic sectional view of a mature anatropous ovule and Mention following parts in it: (i) That develops into a seed coat. (ii) That develops into an embryo after. (iii) That develops into an endosperm in an albuminous seed. (iv) Through which the pollen tube gains entry into the embryo sac. (v) That attaches the ovule to the placenta. Q.8. Give Biological name (term) of the following: (i) Three cells present at the chalazal end in the embryo sac. (ii) A small pore in the ovule through which the pollen tube enter. (iii) Wall of fruit having mesocarp , endocarp, epicarp. (iv) Two cells present on either side of egg cell in an embryo sac. (v) Mass of parental cells enclosed within the integument. Q. 9. Mention the site where syngamy occurs in amphibians and reptiles respectively. Q.10. What is sporopollenin? Discuss its role in plants. Q.11. Describe the post fertilisation changes in flower. Q.11. What is meant by monosporic development of female gametophyte? Q.12. Distinguish between zygote and embryo. Q.13. How microsporogenesis is different from megasporogenesis? Q. 14. Describe the development of a 7-celled female gametophyte from megaspore mother cell in an angiosperm. Draw diagram/diagrams too. Q.15. Explain an anatropous ovule by the help of well labelled diagram.</p> <p style="text-align: center;">SECTION-B (Activity)</p> <p>Q. Make a project on any one of the following topics- # Study of effects of COVID-19 on human population # Study of effects of air pollutants on human health # Study of origin and evolution of man # Study of common diseases in humans # Study of the effects of drug and alcohol on human health # Study of the roles of microbes in human welfare # Biotechnology and its applications in human life.</p>
6	HINDI	<ol style="list-style-type: none"> Chhatr 'Prakriti aur ham' par Vyakaran ki copy me ek rachnatmak lekh likhenge. Chhatr Class magazine ke lie aalekh, rachnatmak lekh, story, poem, natak, sansmaran, jeewan ki rochak ghatnayen adi me se koi ek likhenge. Paper ka size A4 hoga jisme left me 1inch ka margin hona chahie. Samagri ki likhwat achchhi aur susajjit honi chahie. Neeche chhatra ka name, class aur section likha hona chahie. Chhatr Vitan me sankalit path 'Diary ke panne' padhenge aur aise 10 prashno ka nirman karenge jo path ke ant me na ho aur uske uttar bhi likhenge.

7	PHYSICAL EDUCATIO N	01. Physical Fitness Test – 6 Marks 02. Proficiency in Games and Sports (Skill of any one Game of choice from the given list*) - 7 Marks 03. Yogic Practices - 7 Marks 04. Record File ** - 5 Marks 05. Viva Voce (Health/ Games & Sports/ Yoga) - 5 Marks * Football, Volleyball, and Yoga **Record File shall include: Practical-1: Fitness tests administration for all items. Practical-2: Procedure for Asanas, Benefits & Contraindication for any two Asanas for each lifestyle disease. Practical-3: Procedure for administering Senior Citizen Fitness Test for 5 elderly family members. Practical-4: Any one game of your choice out of the list above. Labelled diagram of field & equipment
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