



Hot sizzling summer reminds us of the time,

To break free and bask in the warm sunshine.

There's a burst of activities without minding the scorching heat,

When friends are making merry and relishing the ice cream treat.

So blend enjoyment with learning and introspection,

To fetch glory and attain perfection.

"Intelligence is the ability to adapt"

Knowledge is power and to impart it righteously to our children, we have carefully and meticulously designed the Summer Break Assignment. It aims to create a spirit of enquiry, creativity and sensibility among the learners. It is vital to enable our learners to foster an outlook that helps them explore, discover and rediscover. Summer vacation is the best and fruitful time for learning and nurturing creativity. A variety of fun-filled activities and worksheets are given to be attempted during summer break. The major emphasis is laid on "**Learning by doing**".

Attempt the assignments neatly and beautify them by providing required illustrations. Summer vacation is the time to learn and enjoy. So spend these holidays creating a nurturing and stimulating environment filled with fun, frolic and learning.

Have an enjoyable Summer Break!

Will meet again on 1st July, 2023.

Class XI

English

Instructions: - Do your holidays homework as per given guidelines.

Learn and practice of July UT Syllabus

Hornbill

- ★ L-1 -The Portrait of A Lady
- ★ P-1- The Photograph
- ★ P-2- The Laburnum Top

Snapshot

- ★ L-1-The Summer of The Beautiful White Horse
- ★ L-2-The Address

Writing Skills

- ★ Poster Writing and Classified Advertisement
- ★ Do the given assignment in English Notebook

Assignment -1

- 1.Design a poster in not more than 50 words for your school library on the value of books and good reading habits. You may use slogans.
- 2.Prepare a graceful poster for the Inter-School Poetic Recitation contest that the Hindi Sahitya Sabha of your school is organising to celebrate the birthday of Munshi Prem Chand.
- 3.Design a poster in not more than 50 words about the need for Regular Exercise. You may use slogans.
- 4.You are making an effort to spread the message of communal harmony. Prepare a poster with catchy slogans to be displayed in the school premises. (Word limit: 50 words)
5. You are Krishna/ Tisha, Secretary, Greenland Enterprises Ltd, Delhi-110006. Your Chairman has asked you to draft an advertisement for a local daily under the classified columns for the vacant posts of one accountant and two office assistants. Draft an advertisement.
- 6.You are the Managing Director of Varun Enterprises, a leading garments export house. You need accountants for your Meerut office. Write an advertisement for the 'Situation Vacant' column of a local daily.
- 7.You want to sell your old car as you are planning to buy a new one. Draft a suitable advertisement to be published in a local daily under the classified columns.
- 8.You want to let out a house. Prepare an advertisement to this effect for publication in a newspaper giving the location of the building, nature of accommodation, rent expected, etc.

9.You are the secretary of the Indian Institute of Foreign Languages, Hyderabad. Draft a suitable advertisement to be published in a newspaper announcing the commencement of new courses.

10.You are AP Raman of 22/14 Arabi Tank Lane, Trichy, Tamil Nadu. Your grandmother, Chennamo is missing from your home for the last 5 days. Draft a suitable advertisement with all details to be published in a local daily in the classified column.

11.Sita Travels, 227 Jagriti Enclave, Delhi offers a package tour for 3 nights 14 days in Mauritius for ₹ 10,000 per person. Draft an advertisement for publication in a national daily in about 50 words. Give necessary details.

12.A highly placed IT professional settled in London seeks alliance with an exceptionally beautiful, educated, cultured and tall girl of status Punjabi family. Write a suitable advertisement for the 'Matrimonial' column of a national daily.

Assignment -2

1. Mention the three phases of the author's relationship with his grandmother before he left the country to study abroad.
2. Mention the odd way in which the author's grandmother behaved just before she died.
3. The author's grandmother was a religious person. What are the different ways in which we come to know this?
4. What change did John Byro notice in his horse after it was returned to him?
5. Give a brief account of Mourad's adventure with the white home.
6. The narrator's uncle Khosrove was known to be a crazy fellow. Give a few instances of his craziness.
7. Why did the narrator go to Number 46, in Marconi Street?
8. Justify the title of the story 'The Address'.
9. Give a brief note on Mrs. Dorling.
10. What does the word 'cardboard' denote in the poem? Why has this word been used?
11. What impression do you form of the poetess and the poetess's mother after reading the poem 'A Photograph'?
12. Why is the mother goldfinch bird 'alert' while entering the thickness?

How do the baby goldfinch birds react at the arrival of the mother goldfinch bird?

Activity:

Do the following activities as per the given instructions:

A. Roll no -1 to 10

1. Portrait of your Grand Mother
2. Chart tabulation of village education and city education
3. Compose a poem on your grand parents
4. Make a collage on your ancestors

B. Roll no -8 to 20

1. Draw a poster of a White Horse
2. Frame a poster related to the importance of Values(truth,honesty,etc)
3. Make a comparative study of the children of slum area & affluent area in chart/poster form.
4. Make an advertisement under the heading For Sale/Purchase for A Beautiful White Horse.

C. Roll no -21 to 30

1. Flowchart of your maternal family
2. Scrapbook on old memories
3. Diary entry to share your experience of segregation
4. Quiz based on work of text book writers

D. Roll no -31 onwards

1. Chart tabulation of types of notice
2. Make a Collage on notices (newspaper cuttings)
3. Draw a flowchart on types of posters, advertisements
4. Prepare a collage on posters, advertisements

Physics

NUMERICAL QUESTIONS:

Q.1 The dimensional formula of a physical quantity x is $[M^{-1}L^3T^{-2}]$ the percentage error in measuring the quantities M , L and T are 2%, 3% and 4%. Find the maximum percentage error that occurs in measuring the quantity x .

Q.2 Force applied by water jet from a pipe depends upon

(i) velocity of water (ii) density of water

(iii) cross-sectional area of pipe. How many times force will be increased if velocity of a water is increased 2 times ?

Q.3 A student measures diameter of a sphere using vernier calliper having least count 0.1 mm and reports diameter equal to 0.025307 meter. Number of significant figure in diameter will be

Q.4 Lifting power of helicopter depends upon hovering speed of blades (ω), length of blades (l) and density of air (ρ). how many times lifting power will increase if hovering speed is increased two times.

Q.5 Dimension of a base quantity in other base quantities is equal to

Q.6 A physical quantity A is dependent on other four physical quantities p, q, r and s as given below. The percentage error of measurement in p, q, r and s are 1%, 3%, 0.5% and 0.33%

$A = (pq)^{1/2}/r^2s^3$ respectively, then what is the maximum percentage error in A ?

Q.7 The lengths of sides of cuboid are a, 2a and 3a. If the relative percentage error in the measurement of a is 1%, then what is the relative percentage error in the measurement of volume of cube.

Q.8. The length of a cylinder is measured with a metre rod having least count 0.1 cm. Its diameter is measured with vernier calipers having least count 0.01 cm. Given that length is 5.0 cm and radius is 2.0 cm. The percentage error in the calculated value of the volume will be -1

Q.9. A particle of mass m is located in a region where its potential energy [U(x)] depends on the position x as Potential Energy [U(x)] = $a/x^2 - b/x$ here a & b are positive constants x

(i) Write dimensional formula of a & b

(ii) If the time period of oscillation which is calculated from above formula is stated by a student as $T = 4\pi a (ma/b^2)^{1/2}$ check whether his answer is dimensionally correct.

Q.10 Find the number of significant digits in 0.01050

Q.11 Dimensional formula of capacitance is $[M^{-1}L^{-2}Tx^2A^2]$ Find x. if $C = q^2/2U$ where U stands for energy and q charge.

Q.12 The area of a rectangle of size 1.25 cm \times 1.55 cm is 1.9 y, where y is single digit numbers. Find y.

Q.13 Dimensional formula of electric potential (V) is $[ML^2T^{-x}A^{-1}]$.

Find x. Given: V = energy / charge

Q.14 What do you mean by measurement of a physical quantity?

Q.15 Metre is well defined in terms of wavelength and time in terms of periods of radiation why?

Q.16 Explain echo method to find the distance of moon.

Q.17 If $x = a + bt + ct^2$ where x is in metres and t in seconds, write the units of a , b , c . (3 Marks)

Q.18 Find the expression for centripetal force if it depends upon mass of the body, speed of the body, and the radius of the circular path.

Q.19 What is atomic mass unit (a.m.u.)?

Q.20 Which method is used for measuring nuclear sizes?

Art integrated activity

Draw a chart of dimensional formula.

NCERT questions

Do ncert questions of chapter 2

Chemistry

Assignment 1

Q1. A solution is prepared by adding 60 g of methyl alcohol to 120 g of water. Calculate the mole fraction of methanol and water.

Q2. You are given 1L of 0.15 M HCl and 1L of 0.40 M HCl. What is the maximum volume of 0.25 M HCl that you can make from these solutions without adding any water?

Q3. The relative abundance of various isotopes of silicon is as Si (28) = 92.14%, Si (29) = 4.65% and Si (30) = 3.10%. Calculate the average atomic mass of silicon.

Q4. A solution of oxalic acid $(\text{COOH})_2 \cdot 2\text{H}_2\text{O}$ is prepared by dissolving 0.63 g of the acid in 250 mL of the solution. Calculate

i.) Molarity of the solution

ii.) Normality of the solution

Q5. a.) How many moles of nitrogen are needed to produce 8.2 moles of ammonia by reaction with hydrogen?

b.) How many moles of iron can be made from Fe_2O_3 by using 16 mol of carbon monoxide in the following reaction? $\text{Fe}_2\text{O}_3 + 3\text{CO} \rightarrow 2\text{Fe} + 3\text{CO}_2$

Q6. Dinitrogen and dihydrogen react with each other to produce ammonia according to the following chemical equation: $\text{N}_2 + 3\text{H}_2 \rightarrow 2\text{NH}_3$

i.) Calculate the mass of ammonia produced if 2.00×10^3 g of dinitrogen reacts with 1.00×10^3 g of dihydrogen.

ii.) Will any of the two reactants remain unreacted?

iii.) If yes, which one and what would be its mass?

Q7. a.) Calculate the percentage of water of crystallisation in the sample of Mohr salt, $\text{FeSO}_4(\text{NH}_4)_2\text{SO}_4 \cdot 6\text{H}_2\text{O}$.

b.) Write the empirical formula of the compounds having the molecular formula:

i.) C_6H_{12}

ii.) B_2H_6

iii.) N_2O_4

iv.) H_3PO_4

v.) Fe_2O_3

Q8. State law of definite proportions. How can it be verified experimentally?

Q9. a.) Calculate the weight of carbon monoxide having the same number of oxygen atoms as present in 88 g of carbon dioxide.

b.) Silver is a very precious metal and is used in jewellery. One-millionth of silver weighs 1.79×10^{-16} g. Calculate the atomic mass of silver.

Q10. A crystalline salt, on being rendered anhydrous, loses 45.6% of its weight. The composition of anhydrous salt is: Al = 10.5%, K = 15.1%, S = 2.8%, and O = 49.6%. Calculate the formula of anhydrous salt and crystalline salt.

Assignment 2

Q1. Which of the following orbitals do not make sense?

a.) 6s b.) 3p c.) 2d d.) 4f

Q2. Orbital angular momentum depends on:

a.) l b.) n and l c.) n and m d.) m and s

Q3. In the manganese atom, Mn ($Z = 25$), the total number of orbitals populated by one or more electrons (in the ground state) is:

a.) 15 b.) 14 c.) 12 d.) 10

Q4. The following quantum numbers are possible for how many orbitals? $n = 3, l = 2, m_l = +2$

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

Q5. In Bohr's orbit, the ratio of total kinetic energy and the total energy of the electron is:

- a.) -2 b.) -1 c.) +2 d.) 0

Q6. Define Hund's rule of maximum multiplicity.

Q7. Define electromagnetic spectrum.

Q8. How many protons, electrons, and neutrons are there in the following nuclei?

- i.) ^{178}O ii.) ^{2512}Mg iii.) ^{8035}Br

Q9. State the drawbacks of the Rutherford Model of an atom.

Q10. Calculate and compare the energies of two radiations, one with a wavelength of 800 nm and the other with a wavelength of 400 nm.

Q11. State Heisenberg's Uncertainty principle.

Q12. i.) An atomic orbital has $n = 3$. What are the possible values of l and m_l ?

ii.) List the quantum numbers (m_l and l) of electrons for the 3-d orbital.

iii.) Which of the following orbitals are possible 1p, 2s, 2p and 3f?

Q13. The radius of the fourth orbit in a hydrogen atom is 0.85 nm. Calculate the velocity of the electron in this orbit (mass of electron = 9.1×10^{-31} kg).

Q14. State and explain Pauli's exclusion principle. Write the electronic configuration of the element with atomic number 24.

Q15. a.) What is the Aufbau principle? Write electronic configurations of the elements with atomic numbers 16, 20 and 35.

b.) Explain why half-filled and completely filled orbitals have extra stability?

Q16. How many unpaired electrons are present in the ground state of

- i.) P ($Z = 15$) ii.) Fe^{2+} ($Z = 26$) iii.) Cl^- ($Z = 17$)

Q17. On the basis of Heisenberg's uncertainty principle, show that an electron cannot exist within the atomic nucleus of a radius of 10^{-15} m.

Q18. An electron is moving with a kinetic energy of 2.275×10^{-25} J. Calculate its de-Broglie wavelength. (Mass of electron = 9.1×10^{-31} kg, $h = 6.6 \times 10^{-34}$ J s)

Q19. In the Rydberg equation, a spectral line corresponds to $n_1 = 3$ and $n_2 = 5$.

i.) Calculate the wavelength and frequency of this spectral line.

ii) To which spectral series does this line belong?

iii.) In which region of the electromagnetic spectrum will this line fall?

Q20. What is the photoelectric effect? State the results of the photoelectric effect experiment that could not be explained based on the laws of classical physics. Explain this effect based on the quantum theory of electromagnetic radiations.

MATHEMATICS

Revise chapter: Sets, Relation and function, Complex number, Permutation and combination, Binomial theorem for JULY Unit test .

B) Do the following question:

1. In a school there are 20 teachers who teach mathematics and Physics, of these 12 teach Mathematics and 4 teach both Physics and Mathematics how many teach Physics.

2. Find Multiplicative inverse of $4-3i$?

3. Through venn diagram show following:

a) $A \cup B$ b) $A - B$. c) A Compliment d) Disjoint set

4. Define the following function with diagram:

Identity function, constant function, Absolute value function, Greatest integer function, Signum function .

5. IF $Z=2-3i$, prove $z^2-4z+13=0$

6. find the square root of $-7+24i$.

7. Draw the following graph: $X+2y >0$, $3x+y >4$, $x >0$, $y >0$

8) HOW many words can be made by using all letters of the word MATHEMATICS in which all vowels never occur together.

9. Evaluate: $(3X+Y)^8 - (3X-Y)^8$

10. Find the coordinate of point equidistant from points $O(0,0,0)$, $A(a,0,0)$, $B(0,b,0)$ and $C(0,0,c)$

C) Make working model on any one topic given below:

a) Set and its type (using venn diagram)

b) Relation and function (using graph, thread, wire etc)

c) model of octant(3d)

D) DO the following activity in lab manual:

Activity 1: To find the number of subset of a given set and verify that of a set has n elements, then total number of subset is 2^n

Activity 3 :To represent set theoretic operations using Venn –diagram.

Activity 5:Identification of Relation and Functions.

Activity 6:Difference between Relation and function.

Activity 11: Complex numbers

Activity 13: Graphical solutions of linear inequalities in two variables.

Activity 15: TO construct a Pascal triangle.

Biology

1. Prepare a herbarium file containing collection of leaves with their characteristics.
2. Prepare a scrapbook containing details of all the human bones and joints with their diagrams.
3. Practice the diagram of human physiology in your notebook.

Complete the Biology practical file.

TYPOGRAPHY & COMPUTER APPLICATION

****Learn Chapters -**

Introduction to typography

Keyboard operations

Computer Hardware

Windows Operating system

from Part- B and find out 15 short questions from each chapter

**** Make chart on any one topic from following:**

History of Typewriters

Storage devices

July UT syllabus - chapters (1-4)

Prepare well for July UT

Informatics Practices

Learn chapters

****MYSQL (complete)**

**** Python - Chapter (2,3,4)**

and do practice in fair notebook

Make a practical file based on MY SQL

Psychology

Learn Ch - 2 for July Unit Test .

Revise full syllabus and do written practice.

Project

Make one project in which major emphasis should be on the use of different methods of enquiry and related skills.(You can use survey method, questionnaire, observation method etc) and meet 5 different people around you(non relatives) talk to them and note down their respective problems and tentative solutions to their problems.(Refer chapter-2)

Introspect your areas of improvement and take a resolution in summer break to improve on it. For example: I have observed that at times my anger is uncontrollable and affect relationships. I would like to practice anger management during the vacations so I will cope up with my anger with following ways, so you need to write about the coping strategies as well.

Discuss about the behavioural issues shown by students in classroom/school settings , its consequences and write about what preventive measures can be taken in order to control them among children.

Activity

Watch some of these Bollywood movies during leisure such as --Dear Zindagi, Barfi, Heroine, My Name is Khan, Taare Zameen Par, 15 Park Avenue, Bhool Bhulaiya, Black, in your free time. Understand the Psychological perspective .We would refer to some of these in our forthcoming lessons.

Write about any 5 psychologists with their pictures (refer to chapter -1) and their contributions to the different branches of Psychology. (Use A3 Size sheet)

Physical education

Unit - 1. Changing trends and carrer in Physical Education learn.

Unit - 2. Olympism value education learn and write.

Unit- 3. Yoga

learn and write.

Unit - 4. write in your fair notebook.

Project

10 yoga asanas with Surya namaskar do on A4 size size sheet.

Syllabus for July Unit Test

Chapter- 2 Olympism value education

Chapter-3 Yoga

Chapter-4 Physical Education and Sports for CWSN.

Yoga

Unit 1: Introduction

What is Yoga

Importance of Yoga

Yoga - Its History

Objectives of Yogic Practices

General Guidelines for Yogic Practices

Common Yogic Practices

*** Yama and Niyama**

*** Asana**

***Pranayama**

***Pratyahara**

***Bandha Mudra**

***Shatkarma/Kriya**

***Meditation**

*** Unit -2 personality development through yoga**

*** Yoga and Personality Development**

*** Yogic Practices for Personality Development**

*** Surya Namaskar**

*Asanas

*Tadasana

* Katichakrasana

*Simhasana

*Mandukasana

*Uttana-mandukasana

*Kukkutasana

*Akarna Dhanurasana

* Matsyasana

* Halasana

* Shavasana

* Kriyas - Kapalbhathi and Agnisara

* Pranayama - Anuloma- viloma Pranayama

* Dhyana- Meditation

Unit -3 chapter 3 yoga

learn and write in your fair note book.

Complete syllabus chapter 1, 2 and 3 learn and write.

Project

10 to 15 Yoga Asanas with Surya Namaskar do on A4 size sheet.

July unit test chapter- 1, 2 and 3 learn.

Date Sheet July Unit Test

| Date | Subject |
|-----------------|---------------|
| 15th July, 2023 | Chemistry |
| 17th July, 2023 | Maths/Biology |
| 18th July, 2023 | English |

| | |
|------------------------|--|
| 19th July, 2023 | IP/Typography/PHE/Yoga/Psychology |
| 21st July, 2023 | Physics |