FLORENCE INTERNATIONAL SCHOOL

(Senior Secondary Affiliated With CBSE | ISO 21001:2018 Certified)

SUMMER HOLIDAY HOMEWORK (2025-26)

GRADE – X

Dear Students, Holidays are an integral part of a student's life.

It is a time for fun, a time to explore are given a meaningful direction, it results in a productive and enjoyable time. Let's use these holidays to pursue some hobbies and apply our minds creatively to learn new thing and to bring a change in the environment, in our own individual way.

General Instructions for Students:

- *Follow the instruction given carefully with each activity.*
- *You can take help of the internet, newspapers magazines, encyclopaedia to Collect information and pictures.*
- *Make you activity sheets presentable and attractive.*

A few suggestions for parents:

- *Spend quality time with your children and have fun time together*

- *Help the children to become independent by giving them responsibilities. Involve them in small household activities.*

- *Inculcate in them good manners, healthy habits and respect for elders.*

- *Converse with your children in English.*

- *Encourage your children to read books to enhance their language skills. Reading will also boost their interpretative skills and provide them valuable literary experience.*

- *Cultivate sportsmanship by encouraging your children to play various Indoor games.*

- *Remember that Summer Vacation is the time to relax and enjoy.*

- *So, spend these holidays creating a nurturing and stimulating environment filled with fun, frolic, learning and education.*

- *Have a family dinner every day.*

- *Play board games with your parents and sibling and show them who is the*

smartest.

- *Spend some quality time with an elderly person in the family and ask them to share their childhood days.*

ENGLISH WORKSHEET

SECTION A (READING)

Environmental conservation refers to the practice of protecting and preserving natural resources and ecosystems. As human activities such as deforestation, pollution, and overuse of resources increase, the planet faces serious threats like climate change, loss of biodiversity, and water scarcity.

Trees play a vital role in maintaining ecological balance. They absorb carbon dioxide, release oxygen, and prevent soil erosion. Deforestation not only disrupts this balance but also endangers wildlife by destroying their natural habitats.

Individuals can contribute to conservation in simple ways—by reducing plastic use, recycling, planting trees, and using water wisely. Governments and organizations are also working toward sustainable development through eco-friendly policies and awareness programs.

Caring for the environment is not just a duty—it's a necessity. Without immediate action, the damage to the Earth may become irreversible.

Q1. Read the passage above and answer the following questions:
Questions:
1. MCQ
What is one of the major threats caused by human activities according to the passage?
a) Soil fertility
b) Biodiversity loss
c) Internet shortage
d) Urban growth

2. Assertion and Reason
Assertion (A): Deforestation leads to climate change.
Reason (R): Trees release carbon dioxide into the atmosphere.
a) Both A and R are true, and R is the correct explanation of A.
b) Both A and R are true, but R is not the correct explanation of A.
c) A is true, but R is false.
d) A is false, but R is true.

3. Fill in the blank
_____ helps prevent soil erosion and maintains ecological balance.

4. Short Question
How can individuals contribute to environmental conservation?

5. Extract-Based MCQ

"Caring for the environment is not just a duty—it's a necessity."

What does the phrase "not just a duty—it's a necessity" suggest?

a) Environmental care is optional

b) It is more important than any other task

c) It is essential for survival

d) Only governments should handle it

6. Vocabulary

Find a synonym of the word "preserving" from the passage.

7. Complete the sentence

If people continue to overuse natural resources, _____.

SECTION B (GRAMMAR AND WRITING)

Q2. Read the passage below and fill in the blanks with the correct form of the verbs provided in the brackets:

Last summer, my family and I (1) _____ (go) on a vacation to the beach. As soon as we (2) _____ (reach) the seaside, the children (3) _____ (run) towards the water with excitement. While they (4) _____ (build) sandcastles, I (5) _____ (sit) under an umbrella and (6) _____ (read) a book. Suddenly, dark clouds (7) _____ (appear) in the sky, and thunder (8) _____ (rumble) in the distance. We (9) _____ (pack) our belongings quickly as the rain (10) _____ (start) pouring down.

Q3. Choose the correct option:

i) Rahul and his friends _____ also invited to the party.

A. is

B. was

C. had

D. were

ii) Neither you nor your sister should _____ to them.

A. talk

B. talks

C. talked

D. talking

iii) Twenty years _____ the minimum age to fill this form.

A. are

B. is

C. has

D. have

iv) A pair of socks _____ been missing from my wardrobe.

A. have

B. has

C. were

D. is

v) Each and every member _____ to vote.

A. has

B. have

C. having

D. are

vi) A large number of soldiers _____ died for the country.

A. has

B. is

C. are

D. have

Q4. You are a resident of Shivaji Nagar Pune. You are concerned about the increasing number of road mishaps in your city. Write a letter to the editor of a local magazine "Jan Chetna" highlighting the problem and suggesting measures to check the problem.

SECTION C (LITERATURE)

Q5. Read the extract carefully and answer the following questions:

On the day of the inauguration, I was overwhelmed with a sense of history. In the first decade of the 20th century a few years after the bitter Anglo-Boer war and before my own birth, the white skinned people of South Africa patched up their differences and created a system of racial domination against the dark-skinned people of their own land. The structure they created formed the basis of one of the harshest, most inhumane societies the world has ever known. Now, in the last decade of the twentieth century, and my own eighth decade as a man, that system has been overturned forever and replaced by one that recognised the rights and freedoms of all peoples, regardless of the colour of their skin.

i) Explain the feelings of the narrator when he said ; "I was overwhelmed with a sense of history."

ii) The system of racial domination has been replaced by a system that:
    a. confirms the education of the Blacks.
    b. recognises the rights and freedoms of all people.
    c. recollects the bitter experiences.
    d. focuses on personality development.

iii) Which inauguration was the speaker speaking about?
    a. The inauguration of old system of racial domination
    b. The inauguration of the Union Buildings
    c. The inauguration of South Africa's first democratic non-racial government
    d. The inauguration of South America

iv) Comment on the kind of society Apartheid had created.

Q6. Read the extract carefully and answer the following questions

Some say the world will end in fire

Some say in ice

From what I've tasted of desire

I hold with those who favour fire.

(i) Name the poem and the poet.

(ii) What are the two destructive forces?

(iii) What do they stand for?

(iv) What does he favor?

Q7. Answer the following questions in 40 - 50 words:

　　a. What message does the poet wish to convey through the poem 'Fire and 'Ice'?

　　b. Fowler's disappointment arose when he laid eyes on Ausable. Rationalise the statement. (CBSE 2025)

　　c. How was Ausable different from other secret agents? (CBSE 2019)

　　d. Explain the contrast created by the words, 'stalks' and 'few steps of his cage' in the poem 'A Tiger in the Zoo' (CBSE 2024)

ENGLISH PROJECT WORK FOR INTERNAL ASSESSMENT

Instructions:

There are 5 topics and you need do the project on **any one** topic

You have to submit the project in your own handwriting.

Word limit: 1000 words max.

The Project-Portfolio should include the following:

Cover page with the title of the project, school details/details of students

Statement of purpose/objectives/goals

Acknowledgement

Certificate of Completion under the guidance of the teacher.

Index/Table of Contents

Body (1000 words - Introduction, Description/Report/Explanation, Conclusion)

If possible, photographs that capture the positive learning experiences of the student(s).

List of resources/ Bibliography.

TOPICS:

1. "There is always hope for redemption and transformation, no matter how far one has strayed from the right path." (With reference to 'The Thief's Story' by Ruskin Bond)

2. Mandela's life exemplifies the importance of fighting for justice and equality, even in the face of adversity. (With reference to 'The Long Walk to Freedom' by Nelson Mandela)

3. Even small, seemingly insignificant moments can have a profound impact and change one's mood or perspective. (With reference to 'Dust of Snow' by Robert Frost)

4. True faith in God will be rewarded through the charity of other men. (With reference to 'The Letter to God' by G L Fuentes)

5. Unity in Diversity (With reference to 'Glimpses of India')

हिंदी परियोजना कार्य

किसी एक प्रमुख लेखक/ कवि पर प्रोजेक्ट तैयार करें (फोल्डर में): (निम्न में से किसी एक विषय पर)

प्रस्तावना (भूमिका)

विषयका परिचय

मुख्यविषय-वस्तु

निष्कर्ष

स्रोत / संदर्भ

चित्र / चार्ट (जहाँसंभवहो)

विषयविकल्प:

1. लेखकया कवि परिचय + साहित्यिक योगदान:

विकल्प:

     मुंशी प्रेमचंद (रोल न. 1 से 3)

     महादेवी वर्मा (रोल न. 4 व 5)

     कबीरदास (रोल न. 6 व 7)

     मीराबाई (रोल न. 8 व 9)

     मैथली शरण गुप्ता (रोल न. 10 व 11)

शामिल करें:

जीवन परिचय

रचनाएँ

भाषा शैली

प्रभाव

सामाजिक विषयों पर आधारित प्रोजेक्ट:

विकल्प:

     पर्यावरण संरक्षण में युवा पीढ़ी की भूमिका (रोल न. 12 व 13)

     तकनीक और मानव जीवन (रोल न. 14 व 15)

     स्वच्छ भारत अभियान (रोल न. 16 व 17)

शामिलकरें:

लेख, नारे, चित्र, समाचार

वर्कशीट दसवीं- व्याकरण (अभ्यासकार्य)

समास

निम्नलिखित विग्रहकेसमस्त पद (सामासिक पद) बनाकरसमासका नाम लिखिए:

1. मृग के समान आँखे हैं जिसकी

2. युद्ध के लिए भूमि

3. मानव द्वारा बनाया हुआ

4. राम और लक्ष्मण

5. नीला है जोगगन

6. चक्र है पाणि में जिसके अर्थात विष्णु

7. आठ अध्यायों का समूह

8. आठ पायों का समूह

9. स्वर्ग में वास

10. ध्यान मे मगन

11. राज्य का दूत

12. नया है गीतजो

13. तीन नेत्र है जिसके अर्थात शिव

14. दो पहरों का समाहार

15. कमल रूपी नयन

16. घन के समान श्याम है जो अर्थात कृष्ण

17. सिंह के समान नर

18. क्रोध रूपी अग्नि

19. पथ से भ्रष्ट

20. काली है जो मिर्च

निम्नलिखित सामासिक पदों का विग्रह कर के समास का नाम लिखिए:

समस्त पद	समासविग्रह	समासका नाम
(क) क्रोधाग्नि		
(ख) महाराजा		

(ग) सत्य-असत्य

(घ) अजातशत्रु

(ङ) मृत्युंजय

(च) सप्तपदी

(छ) नवरात्रि

(ज) प्रधानमंत्री

(झ) नरसिंह

(ञ) सप्ताह

(ट) कुपुत्र

(ठ) वनवास

(ड) बेशक

ढ) यथावसर

(ण) आसमुद्र

(त) गगनचुंबी

(थ) प्रदूषणरहित

(द) चंद्रशेखर

(ध) जन्म-मृत्यु

रेखांकित पदबंधों के नाम बताइए:-

1. **उन्हें लाल बाज़ार** ले जाया गया।

2. **वंदे मातरम बोलता हुआ वह** बहुत ज़ोर से दौड़ा।

3. **अनुभव का भाई अमोघ** कल घर आया था।

4. **कौस्तुभ की मित्रों में से कोई** भी समय पर नहीं पहुंचा।

5. **सक्षम ने अपने दोस्तों** को होटल में ठहराया।

6. **गीता पढ़ने वाले आप** उपदेश देने के वास्तविक अधिकारी हैं।

7. **अरुणिमा धीरे-धीरे चलते हुए** वहाँ पहुँची।

8. **लोहे की बड़ी** अलमारी खोलो।

9. **सदा मुस्कुराने वाले तुम** आज उदासक्योंहो?

10. **कृति की बहन श्रेया** बहुत मेहनती है।

11. **उस घर के कोने में बैठा आदमी** अपराधी है।

12. नदी कल कल करती हुई **बह रही है।**

13. सामने के **मकान में रहने वाला लड़का** आज चला गया।

14. कभी **असत्य न बोलने वाले** देश का गौरव होते हैं।

15. **आपके मित्रों में से कोई** समय पर नहीं पहुंचा।

16. **गोवा से लाए गए काजू** बहुत स्वादिष्ठ है।

17. **जो परिश्रम करते हैं वे** ही सफल होते हैं।

18. **विदेशों में रहने वाले** भारत वापस लौट रहे हैं।

19. **राधा बोल- बोल कर** थक गई है।

20. भाई गुस्से में बहु**त जल्दी- जल्दी** आँखें झपकते।

Maths

Instructions: -
1. Select any one topic from the list
2. Project file should contain- Index, Acknowledgement, Certificate, Introduction, Real life application, Concepts, Historical note, Bibliography.

Project file topics

Grade 10
1. Linear equation in two variables
2. Arithmetic progression
3. Statistics
4. Coordinate geometry
5. Trigonometry

WORKSHEET (ARITHEMETIC PROGRESSION)

Q1- if the seventh term of an AP is 1/9 and its ninth term is 1/7, find its 63rd term.

Q2- the sum of the 4th and 8th terms of an AP is 24 and the sum of its 6th and 10th terms is 44. Find the first three terms of an AP.

Q3- which term of an AP 5, 9, 13, 17… is 81 ?

Q4- which term of the AP 3, 15, 27, 39….. will be 120 more than its 21st term ?

Q5- Is 51 a term of the AP 5,8,11,14……?

Q6- in a given AP if pth term is q and the qth term is p then show that the nth term is (p+q-n).

Q7- if m times the mth term of an AP is equal to n times the nth term and m≠n, show that its (m+n)th term is zero.

Q8- if the mth term of an AP be 1/n and its nth term be 1/m then show that its (mn)th term is 1.

Q9- Tanvy joined her job in a company in the year 2015 on a monthly salary of ₹40000 with

an annual increment of ₹2500. In which year will she get ₹65000 as monthly salary ?

Q10- how many terms are there in the AP 18, 15½ , 13,…….., -47 ?

Q11- if the 10th term of an AP is 52 and 17th term is 20 more than its 13th term, find the AP ?

Q12- Find the sum of the two middle most terms of the AP : -4/3, -1, -2/3, …….., 4 1/3 .

Q13- find the 8th term from the end of the AP : 7, 10, 13,… 184.

Q14- If 10 times the 10th term of an AP is equal to 15 times the 15th term, show that its 25th term is zero.

Q15- the sum of the 2nd and the 7th terms of an AP is 30. If its 15th term is 1 less than twicw its 8th term, find the AP.

Q16- if the pth term of an AP is q and its qth term is p then show that its (p+q)th term is zero.

Q17- find how many integers between 200 and 500 are divisible by 8.

Q18- the sum of the three numbers in AP is 21 and their product is 231. Find the numbers.

Q19- show that $(a-b)^2$, (a^2+b^2) and $(a+b)^2$ are in AP.

Q20- Divide 24 in three parts such that they are in AP and their product is 440.

Q21- If the numbers a, 7, b, 23, c are in AP, find a,b,c

Q22- find the sum of first n terms of an AP whose nth term is (5n-1). Hence, find the sum of the first 20 terms.

Q23- how many terms of the AP 3,5, 7, 9…. Must be added to get the sum 120 ?

Q24- how many terms of the AP 17, 15, 13, 11,….. must be added to get the sum 72 ? Explain the double answer.

Q25- the first and the last terms of an AP are 7 and 49 respectively. If sum of all its terms is 420, find the common difference.

Q26- the sum of the first 7 terms of an AP is 63 and the sum of its next 7 terms is 161. Find the 28th term of this AP.

Q27- the sum of 4th and 8th terms of an Ap is 24 and the sum of its 6th and 10th terms is 44. Find the sum of first ten terms of the AP.

Q28- sum of the first 14 terms of an AP is 1505 and its first term is 10. Find its 25th term.

Q29- if S_n denotes the sum of first n terms of an AP, prove that $S_{12} = 3(S_8 - S_4)$.

Q30- if the sum of the first p terms of an AP is the same as the sum of its first q terms then show that the sum of its first (p+q) terms is zero.

Q31- if the sum of the first m terms of an AP be n and the sum of its first n terms be m then show that the sum of its first (m+n) terms is –(m+n)

Mathematics worksheet

Chapter- Quadratic equation

Q1. Find the value of p so that the quadratic equation $px(x-3)+9=0$ has two equal roots. (2011D, 2014OD)

Q2. Find the value of m so that the quadratic equation $mx(x-7)+49=0$ has two equal roots. (2011OD)

Q3. Solve for x: $36x^2-12ax+(a^2-b^2)=0$ (2011OD)

Q4. Find the value(s) of k so that the quadratic equation $x^2-4kx+k=0$ has equal roots. (2012D)

Q5. Find the value of k for which the equation $x^2+k(2x+k-1)+2=0$ has real and equal roots. (2017D)

Q6. Solve the following quadratic equation for x: $4x^2-4a^2x+(a^4-b^4)=0$. (2015D)

Q7. If $x=23$ and $x=-3$ are roots of the quadratic equation $ax^2+7x+b=0$, find the values of a and b. (2016D)

Q8. If -5 is a root of the quadratic equation $2x^2+px-15=0$ and the quadratic equation $p(x^2+x)+k=0$ has equal roots, find the value of k. (2016OD)

Q9. Find that value of p for which the quadratic equation $(p+1)x^2-6(p+1)x+3(p+9)=0$, $p \neq -1$ had equal roots. (2015D)

Q10. If the roots of the quadratic equation $(a-b)x^2+(b-c)x+(c-a)=0$ are equal, prove that $2a=b+c$. (2016OD)

Q11. Solve for x: $\dfrac{x+1}{x-1}+\dfrac{x-2}{x+2}=4-\dfrac{2x-3}{x-2}$; x $\neq$ 1, -2, 2 (2016D)

Q12. Solve the following quadratic equation for x: $x^2+\left(\dfrac{a}{a+b}+\dfrac{a+b}{a}\right)x+1=0$ (2016D)

Q13. Find the roots of the equation $\dfrac{1}{x+4}-\dfrac{1}{x-7}=\dfrac{11}{30}$, $x \neq -4, 7$ (2011D)

Q14. Find the roots of the equation: $\dfrac{1}{2x-3}+\dfrac{1}{x-5}=1$, $x \neq 32, 5$. (2011OD)

Q15. Solve for x; $\dfrac{1}{x-3}+\dfrac{2}{x-2}=\dfrac{8}{x}$ x $\neq$ 0, 2, 3 (2013OD)

Q16. Solve the following for x: $\dfrac{1}{2a+b+2x}=\dfrac{1}{2a}+\dfrac{1}{b}+\dfrac{1}{2x}$ (2013D)

Q17. A shopkeeper buys some books for 80. If he had bought 4 more books for the same amount, each book would have cost ₹1 less. Find the number of books he bought. (2012D)

Q18. Sum of the areas of two squares is 400 cm^2. If the difference of their perimeters is 16 cm, find the sides of the two squares. (2013D)

Q19. The difference of two natural numbers is 5 and the difference of their reciprocals is 514. Find the numbers. (2014D)

Q20. The numerator of a fraction is 3 less than its denominator. If 2 is added to both the numerator and the denominator, then the sum of the new fraction and original fraction is

a 2920. Find the original fraction. (2015D)

Q21. A rectangular park is to be designed whose breadth is 3 m less than its length. Its area is to be 4 square metres more than the area of a park that has already been made in the shape of an isosceles triangle with its base as the breadth of the rectangular park and of altitude 12 m. Find the length and breadth of the rectangular park. (2016OD)

Q22. A train travels 180 km at a uniform speed. If the speed had been 9 km/hour more, it would have taken 1 hour less for the same journey. Find the speed of the train. (2011OD)

Q23. In a flight of 2800 km, an aircraft was slowed down due to bad weather. Its average speed is reduced by 100 km/h and time increased by 30 minutes. Find the original duration of the flight. (2012OD)

Q24. While boarding an aeroplane, a passenger got hurt. The pilot, showing promptness and concern, made arrangements to hospitalise the injured and so the plane started late by 30 minutes. To reach the destination, 1500 km away in time, the pilot increased the speed by 100 km/hour. Find the original speed/hour of the plane. (2013OD)

Q25. A train travels at a certain average speed for a distance of 54 km and then travels a distance of 63 km at an average speed of 6 km/h more than the first speed. If it takes 3 hours to complete the total journey, what is its first speed? (2015OD)

MAP WORK (History)

Nationalism in India
I. Congress sessions:
1920 Calcutta
1920 Nagpur
1927 Madras session
II. Satyagraha movements:
Kheda
Champaran
Ahmedabad mill workers
III. JallianwalaBagh
IV. Dandi March

Geography Resources and Development
Identify Major Soil Types
Water Resources Locating and Labeling:
*Salal Sardar Sarovar
* Bhakra Nangal Hirakund
* Tehri Nagarjun Sagar
" Rana Pratap Sagar Tungabhadra
Agriculture Identify:

*Major areas of Rice and Wheat

* Largest/Major producer states of Sugarcane, Tea, Coffee,Rubber, Cotton and Jute

Minerals and Energy Resources

Identify:

Iron Ore Mines

Mayurbhanj

Durg

Bailadila

Bellary

Kudremukh

Coal Mines

Raniganj

Bokaro

Talcher

Neyveli

Oil Fields

Digboi

Naharkatia

Mumbai High

Bassien

Kalol

Ankaleshwar

Locate and label: Power Plants

Thermal Nuclear

NamrupNarora

SingrauliKakrapara

RamagundamTarapur

Kalpakkam

Project Work

Role No. 1 to 10 - The Making of a Global World

Role No. 11 to 17 - Lifelines of National Economy

SST Worksheet

Resources and Development (5 questions)

1. What is sustainable development? Explain with an example. (CBSE 2013)

2. Why is resource planning necessary? Give reasons. (CBSE 2015)

3. Distinguish between potential and developed resources.

4. Explain the concept of stock and reserves.

5. What is the importance of conservation of resources?

Development (5 questions)

6. What may be development for one may not be development for the other. Explain with an example. (CBSE Board Question)

7. Why is sustainable development essential? Give one reason. (CBSE 2015)

8. What is the basis for categorizing countries as rich or low-income? (CBSE 2015, 2014)

9. Why is per capita income calculated in dollars and not in local currencies? (CBSE Board Question)

10. What are the limitations of using GDP as a measure of development?

Nationalism in Europe (5 questions)

11. Explain the nation-building process of Germany. (CBSE Sample Paper 2017)

12. Describe the role of Otto von Bismarck in the unification of Germany. (CBSE)

13. What was the significance of the French Revolution in spreading nationalism in Europe? (CBSE 2017)

14. How did liberal nationalism develop in Europe? (CBSE Sample Paper-2017, CBSE (Comp) 2017)

15. What was the Treaty of Vienna, and what were its main objectives? (CBSE 2016)

Power Sharing (5 questions)

16. What is power sharing, and why is it important in a democracy? (CBSE)

17. What are the different forms of power sharing? (CBSE)

18. How does power sharing promote social justice?

19. What are the benefits of power sharing in a federal system?

20. How can power sharing reduce conflict in a society?

Biology

Investigatory Project for Internal Assessment
Instructions:
- There are 4 topics and you need do the project on any one topic
- You have to submit the project in your own handwriting.
- Word limit: 1000 words max. The Project-Portfolio should include the following:
- Cover page with the title of the project, school details/details of students
- Statement of purpose/objectives/goals
- Acknowledgement
- Certificate of Completion under the guidance of the teacher.
- Index/Table of Contents
- Body (1000 words - Introduction, Description/Report/Explanation, Conclusion)
- If possible, photographs that capture the positive learning experiences of the student(s).
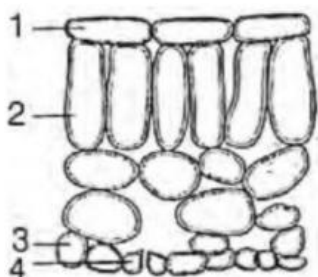- List of resources/ Bibliography.

TOPICS:

1. Environmental Problem its Awareness and its Solution.
2. Waste Management
3. Child Bearing and Women Health.
4. Medical Emergency- Haemodialysis and Blood Pressure

Worksheet Ch.5. Life Processes

Question No. 1 to 5 are based on the given text. Read the text carefully and answer the questions: Leena is a class X girl and actively participates in the Green School programme. She planted some trees as she needs to know and observe how plants grow by preparing their own food. She placed a potted plant in her room and observed after 3-4 weeks that leaves turned pale-yellow instead of green in colour. She realized her mistake and kept the plant back in the sunlight.
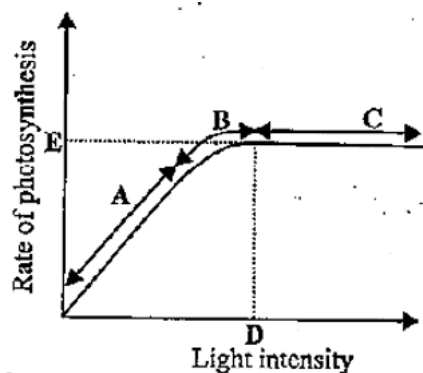
1. The diagram shows the arrangement of cells inside the leaf of a green plant. Which cells normally contain chloroplast?

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

2. In photosynthesis which substances are used up, which are produced and which are necessary but remains unchanged after the reaction?

   a) Option (ii)
   b) Option (iv)
   c) Option (iii)
   d) Option (i)

3. The following graph shows the effect of light intensity on the rate of photosynthesis which of the following statement/statements is correct?
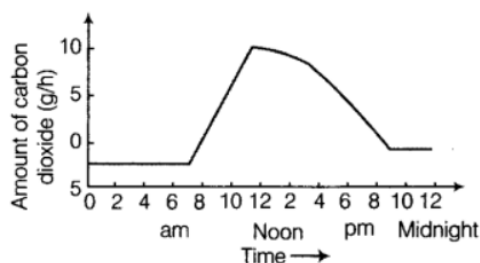
a) Point D represents the intensity of light at which some other factors becomes limiting

b) Region C represents that rate of photosynthesis is not increased further by increasing light intensity

c) because some other factors become limiting

d) All of these

e) Light is a limiting factor in the region A

4. At what point is optimum temperature reached?

   a) None of these

   b) Point (b)

   c) Region (a)

   d) Region (c)

5. The graph shows how the amount of CO_2 taken in by a plant varies through a 24 hour period. At what time of the day was the rate of photosynthesis the greatest?

   a) At 12 (noon)

   b) At 6 am

   c) At 7 am

   d) At 10 pm

6. In the experiment, to show CO_2 is given out during respiration. Atul put boil gram seeds in a conical flask. According to his observation, the water level in the bent tube:

   a) Rises

   b) Decreases

   c) Rise or decreases in water level depends on the room temperature

   e) Remains the same

7. Which colour of the visible spectrum is most effective in photosynthesis?

   a) Red

   b) Yellow

   c) Green

   d) Blue

8. **Assertion (A):** Muscles of stomach wall possess thick layers of muscles.
   Reason (R): These muscles help in mixing the food with the enzymes presents in the alimentary canal.
   a) Both A and R are true and R is the correct explanation of A.
   b) Both A and R are true but R is not the correct explanation of A.
   c) A is true but R is false.
   d) A is false but R is true.

9. **Assertion (A):** Alveoli contain an extensive network of blood vessels.
   Reason (R): Alveoli is the site where the exchange of gases occurs.
   a) Both A and R are true and R is the correct explanation of A.
   b) Both A and R are true but R is not the correct explanation of A.
   c) A is true but R is false.
   d) A is false but R is true.
   d) 10.State True or False:

i) Growth is defined as increase in size, number or mass of the cell.
   a) True   b) False

ii) Growth is associated with cell division and enlargement.
   a) True   b) False

11. Fill in the blanks:
   a) _____ helps in the artificial removal of wastes from the body.

   b) _____ is the loss of water in the form of vapour from aerial parts of a plant.

12. Match the following:

13. Name the substrates for the following enzymes
   a) trypsin
   b) amylase
   c) pepsin
   d) lipase

14. Name the pumping organ of body.

15. How are fats digested in our body? Where does this process take place?

16. Explain the role of mouth in digestion of food.

17. Anju observed her mother preparing dough for a dish. She noted that her mother added yeast powder to the dough and left it for overnight. She got curious and asked her teacher questions about the same, next day.

Read the passage and answer the following questions.

   a) Why was yeast powder added to the dough?

   b) What type of reaction do you observe in this case? What are the end products?

   c) Suggest the values shown by Anju.

18. Describe the process of digestion of food in human beings.

PROJECT WORK (Chemistry)

Investigatory project for internal assessment

Instructions:

● There are 4 topics and you need do the project on any one topic

● You have to submit the project in your own handwriting.

● Word limit: 1000 words max. The Project-Portfolio should include the following:

● Cover page with the title of the project, school details/details of students

● Statement of purpose/objectives/goals

● Acknowledgement

● Certificate of Completion under the guidance of the teacher.

● Index/Table of Contents

● Body (1000 words - Introduction, Description/Report/Explanation, Conclusion)

● If possible, photographs that capture the positive learning experiences of the student(s).

● List of resources/ Bibliography.

Topics:

1. Study of Corrosion on Different Metals:

Observe rusting on iron, and compare corrosion on copper, aluminum, silver, etc., in different conditions.

2. Effect of Acids and Bases on Various Indicators:

Use turmeric, litmus, china rose, etc., and test household substances.

3. Saponification Reaction:

Make soap using vegetable oil and caustic soda, and analyze the process.

4. Testing the Hardness of Water:

Use soap solution to compare lather formation in distilled, tap, and mineral water.

Class 10 Science – Chapter 1: Chemical Reactions and Equations

Worksheet

Section A: Objective Type Questions (1 mark each)

Q1. When magnesium ribbon is burnt in air, an ash of white colour is produced. Write the chemical equation for the reaction giving the chemical name of the ash produced. State the type of chemical reaction justifying your answer.

Q2. In electrolysis of water, why is the volume of gas collected over one electrode double that of gas collected over the other electrode?

Q3. What change in colour is observed when silver chloride is left exposed to sunlight? What type of chemical reaction is this?

Q4. When aqueous solutions of potassium iodide and lead nitrate are mixed, an insoluble substance separates out. The chemical equation for the reaction involved is:
(a) $KI + Pb(NO_3)_2 \rightarrow PbI_2 + KNO_3$
(b) $2KI + Pb(NO_3)_2 \rightarrow PbI_2 + 2KNO_3$
(c) $KI + Pb(NO_3)_2 \rightarrow PbI_2 + 2KNO_3$
(d) $KI + Pb(NO_3)_2 \rightarrow PbI_2 + KNO_3$

Assertion-Reason Based Questions (1 mark each)

Q5. **Assertion (A):** Hydrogen gas is not evolved when zinc reacts with nitric acid.
Reason (R): Nitric acid oxidises the hydrogen gas produced to water and itself gets reduced.

Q6. **Assertion (A):** When a solution of potassium chloride is mixed with silver nitrate solution, an insoluble white substance is formed.
Reason (R): This is a precipitation reaction.

Section B: Very Short Answer Type Questions (2 marks each)

Q7. Define a combination reaction. Give one example of a combination reaction which is also exothermic.

Q8. Write a balanced chemical equation for the reaction between quick lime and water.

Section C: Short Answer Type Questions (3 marks each)

Q9. What is observed when carbon dioxide gas is passed through lime water?
(i) For a short duration   (ii) For a long duration

Also, write the chemical equations for the reactions involved.

Q10. Name the type of chemical reaction represented by the following equation:
(i) $CaO + H_2O \rightarrow Ca(OH)_2$
(ii) $3BaCl_2 + Al_2(SO_4)_3 \rightarrow 2AlCl_3 + 3BaSO_4$
(iii) $2FeSO_4 \rightarrow Fe_2O_3 + SO_2 + SO_3$

Section D: Case Study Based Question (4 marks)

Q11. When magnesium ribbon is burnt in air, an ash of white colour is produced.
(a) Write the chemical equation for the reaction.
(b) What is the chemical name of the ash produced?
(c) State the type of chemical reaction.
(d) Justify your answer for part (c).

Section E: Long Answer Type Question (5 marks)

Q12. Define a decomposition reaction.
(a) Write the chemical equation for the decomposition of ferrous sulphate.
(b) What are the products formed in this reaction?

(c) What is the type of reaction?

(d) Write the balanced chemical equation for the reaction.

Computer Assignment and Holiday Homework

Project Title:

"Building Better Habits Through Self-Management"

Objective:

To help students understand the importance of self-management skills and how to apply them in daily life for personal and academic growth.

1. Which of these is a method of communication?
a) Speaking
b) Reading
c) Writing
d) All of the above

2. Feedback is important because it helps in:
a) Ending the communication
b) Ignoring the sender
c) Improving understanding
d) Changing topic

3. Passive communication style means:
a) Aggressively shouting
b) Avoiding expression of opinions
c) Speaking clearly
d) Giving orders

4. Which of these is not a type of communication?
a) Visual
b) Written
c) Flying
d) Verbal

5. Assertive communication style includes:
a) Disrespect
b) Confidence and respect
c) Silence
d) Anger

Fill in the Blanks / True or False
6. _____ is the process of exchanging information.
7. Written communication is _____than verbal communication.
8. Aggressive communication is the best style to solve conflicts.[ ]
9. Listening carefully and replying politely is a sign of _____ feedback.
10. Body language is a part of non-verbal communication.[   ]

(**Written Work**)
Answer the following in your notebook or on a separate sheet.
1. Define Self-Management.

2. List and explain any 5 self-management skills with real-life examples.

3. What are SMART goals? Write one SMART goal for your academic life.

4. How does stress affect self-management? Mention 3 stress management techniques.

IT Project (Poster Making Holiday Homework)

A. Create a poster on the topic "**Self-Discipline: The Key to Success**" Prepare a timetable for your daily routine that includes time for study, rest, exercise, and hobbies.

B. Draw and label: **Verbal, Non-verbal, WrittenVisual**. Use speech bubbles, icons, and brief notes.