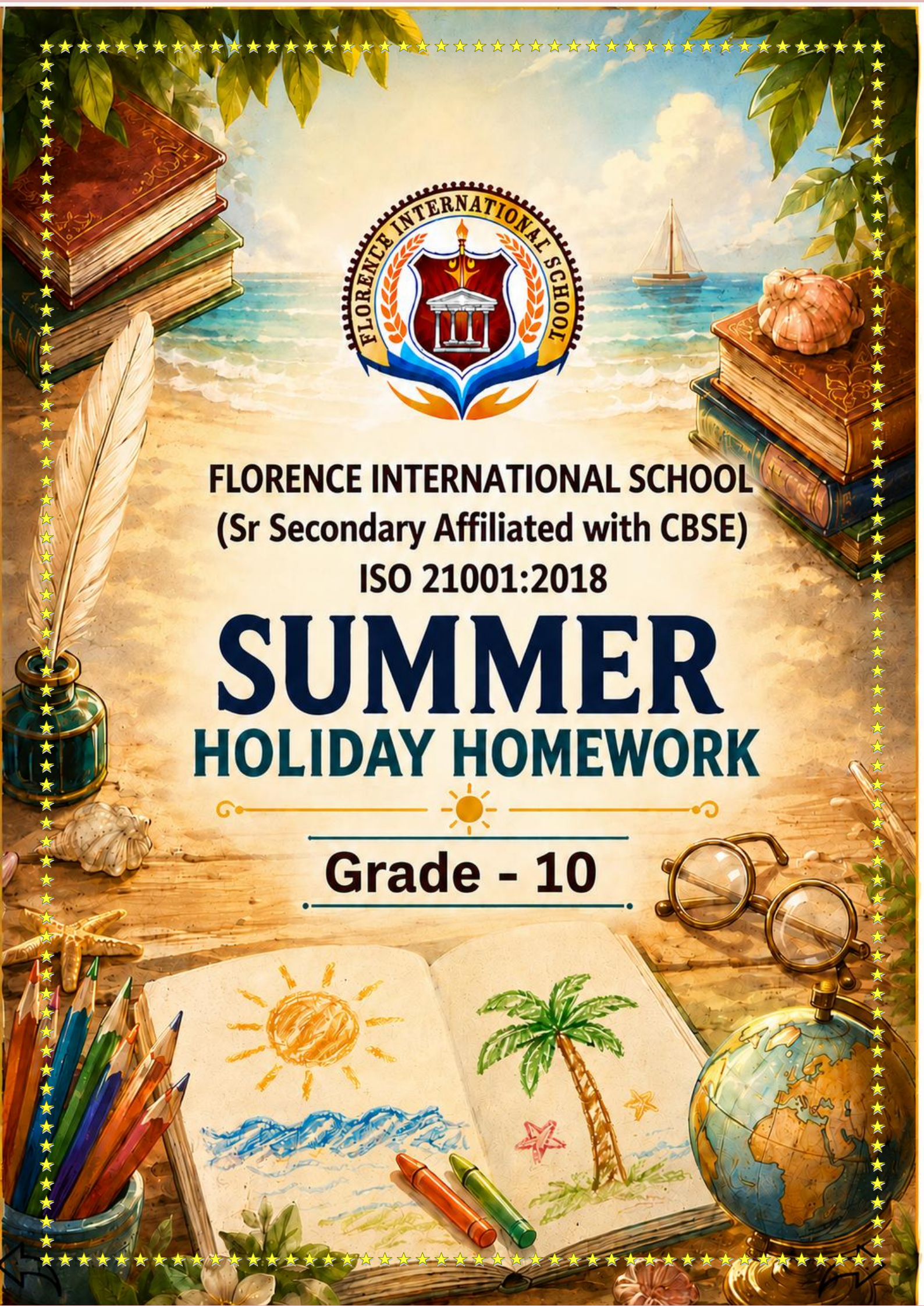
FLORENCE INTERNATIONAL SCHOOL
FLORENCE INTERNATIONAL SCHOOL
(Sr Secondary Affiliated with CBSE)
ISO 21001:2018
SUMMER
HOLIDAY HOMEWORK
Grade - 10

Work Instructions for Project Files

- Prepare a handwritten investigatory project file.
- Use A4-size ruled sheets.
- Attach relevant diagrams, tables, and graphs. Include real observations/photographs (if possible).
- Maintain neatness and proper headings.

PROJECT FILE FORMAT

1. Your project must include the following sections:
Cover Page
Title of project
Student name
Class & Section
Roll number
School name

2. Certificate
3. Acknowledgement
4. Index
5. Introduction
Basic theory of the topic
Importance in daily life
6. Aim
7. Materials Required
8. Theory: Scientific explanation with chemical principles.
9. Procedure: Step-by-step method.
10. Observations
11. Calculations (if applicable)
12. Result
13. Conclusion
14. Precautions
15. Bibliography

हिंदी

- **Roll number 1-4:** डिजिटल इंडिया – प्रभाव और महत्व
- **Roll number 5-8:** पर्यावरण संरक्षण
- **Roll number 9-12:** भारतीय संस्कृति और परंपराएँ
- **Roll number 13-16:** मीडिया का प्रभाव (फायदे और नुकसान)
- **Roll number 17-20:** महिला सशक्तिकरण
- **Roll number 21-24:** पदबंध और उसके प्रकार (उदाहरण सहित)
- **Roll number 25-29:** समास और उनके प्रकार (उदाहरण सहित)

नोट -

• प्रैक्टिकल फ़ाइल सही फ़ॉर्मेट में होनी चाहिए।

1. कवर पेज (प्रोजेक्ट का शीर्षक, विषय, छात्र का नाम, कक्षा और सेक्शन, रोल नंबर, स्कूल का नाम, शिक्षक का नाम, सत्र (जैसे, 2026–27))

2. आभारोक्ति (Acknowledgement) एक छोटा सा धन्यवाद नोट लिखें।

3. उद्देश्य (Objectives) बताएँ कि आप क्या सीखना चाहते हैं।

4. इंडेक्स (विषय-सूची) सभी सेक्शन को पेज नंबर के साथ सूचीबद्ध करें।

5. परिचय विषय की संक्षिप्त व्याख्या (1 पेज)।

6. मुख्य सामग्री यह मुख्य भाग है: (अवधारणाओं की व्याख्या, उदाहरण आदि)

7. अवलोकन / विश्लेषण (Observation / Analysis)

8. निष्कर्ष (Conclusion) (अपनी सीख को 4–5 पंक्तियों में संक्षेप में बताएँ।)

9. संदर्भ-सूची (Bibliography) - उपयोग किए गए स्रोतों की सूची बनाएँ।

• कागज़ के फ़ोल्डर या हाथ से बने फ़ोल्डर का उपयोग करें (प्लास्टिक फ़ोल्डर का उपयोग न करें)

• साफ़-सुथरा लिखें

हिंदी वर्कशीट

सामान्य निर्देश वर्कशीट व्याकरण नोटबुक में करनी है

समास

प्रश्न 1: निम्नलिखित समासों का भेद बताइए -

राजपुत्र

नीलकमल

चतुर्भुज

यथाशक्ति

मातृभूमि

प्रश्न 2: निम्नलिखित शब्दों का समास-विग्रह कीजिए -

लोकहित

देवालय

त्रिलोचन

राजमार्ग

जलयान

प्रश्न 3: समास बनाइए -

गुरु का आदर

मन के अनुसार

तीन लोकों का स्वामी

देश के लिए प्रेम

हाथ में धारण किया हुआ

प्रश्न 4: सही विकल्प चुनिए -

'दशानन' किस समास का उदाहरण है?

(a) द्वंद्व

(b) बहुव्रीहि

(c) तत्पुरुष

(d) कर्मधारय

'नीलकंठ' किस समास का उदाहरण है?

(a) कर्मधारय

(b) द्विगु

(c) द्वंद्व

(d) बहुव्रीहि

'रक्तचंदन' का सही समास है -

(a) द्वंद्व

(b) कर्मधारय

(c) तत्पुरुष

(d) बहुव्रीहि

'चौराहा' किस समास का उदाहरण है?

(a) द्विगु

(b) बहुव्रीहि

(c) द्वंद्व

(d) कर्मधारय

'यथाशक्ति' में कौन-सा समास है?

(a) अव्ययीभाव

(b) तत्पुरुष

(c) द्वंद्व

(d) कर्मधारय

प्रश्न 5 निम्नलिखित वाक्यों में पदबंध पहचानकर उसका प्रकार लिखिए -

वह बहुत तेज दौड़ने वाला खिलाड़ी प्रतियोगिता जीत गया।

राम धीरे-धीरे बोल रहा था।

सुंदर फूलों से भरा बगीचा सभी को आकर्षित करता है।

वह बहुत मेहनत करने वाला छात्र है।

बच्चे खुशी-खुशी खेल रहे हैं।

लाल रंग की साड़ी बहुत सुंदर लग रही है।

वह तेजी से दौड़कर घर पहुँचा।

ईमानदार और परिश्रमी व्यक्ति समाज का आदर्श होता है।

प्रश्न 6: निम्नलिखित वाक्यों में रेखांकित पदबंध को पहचानकर उसका भेद लिखिए -

वह बहुत ही सुंदर लड़की है।

मोहन तेज गति से दौड़ रहा है।

मेहनत करने वाले बच्चे हमेशा सफल होते हैं।

वह धीरे-धीरे चल रहा था।

हरे-भरे पेड़ों वाला जंगल बहुत आकर्षक है।

वह खुशी से गाना गा रहा है।

प्रश्न 7: औपचारिक पत्र का प्रारूप तैयार कीजिए और कोई एक उदाहरण भी लिखिए। (पत्र लेखन)

प्रश्न 8: ईमेल का प्रारूप तैयार कीजिए कोई एक उदाहरण भी लिखिए। **(ईमेल लेखन)**

English

Theme: Literature, Life, and Expression

PROJECT TITLE

"Exploring Themes Through Poems and Prose"

Objective:

To develop literary understanding, creativity, analytical thinking, communication skills, and a real-life connection with English literature.

GENERAL INSTRUCTIONS

- Prepare the project in a handmade/file format.
- Use pictures, sketches, newspaper cuttings, and creative designs.
- Maintain neatness and proper headings.
- The project should be written in your own words.
- Suggested length: 15–20 pages.

SECTION A – POETRY PROJECT

Select Any TWO Poems from the Syllabus

Suggested poems:

- Dust of Snow
- Fire and Ice
- A Tiger in the Zoo
- Amanda!
- The Trees
- Fog
- The Tale of Custard the Dragon
- For Anne Gregory

Include the Following:

1. Introduction of the Poet

Write about:

- Poet's life
- Literary style
- Famous works

(70–80 words each)

2. Summary and Theme

Explain:

- Main idea of the poem
- Message/theme
- Emotions conveyed

(100–120 words)

3. Poetic Devices

Identify and explain:

- Metaphor

- Simile
- Alliteration
- Imagery
- Personification
- Rhyme scheme

Write examples from the poem.

4. Critical Analysis

Write:

- How the poem connects with real life
- Social or moral lesson
- Your personal interpretation

(120–150 words)

SECTION B – PROSE PROJECT

Select Any TWO Chapters From:

- A Letter to God
- Nelson Mandela
- Two Stories About Flying
- From the Diary of Anne Frank
- The Hundred Dresses
- Footprints Without Feet
- Bholi
- The Necklace
- The Book That Saved the Earth

Include the Following:

1. Chapter Summary

Write the summary in 120–150 words.

2. Character Sketch

Write detailed character sketches of major characters:

- Personality traits
- Strengths and weaknesses
- Values learnt

(100 words each)

3. Theme and Values

Discuss:

- Main theme
- Moral lesson
- Social message

4. Competency-Based Reflection

Answer:

- What would you do if you were in the place of the main character?
- Which decision of the character impressed/disappointed you and why?

(120 words)

5. Creative Presentation

Choose one:

- Newspaper report based on the chapter
- Interview with a character
- Alternative ending
- Conversation between two characters

The Presentation Should Include:

1. Introduction
2. Main theme/message
3. Important lines/events
4. Personal opinion
5. Real-life connection

Chapters

- “Importance of Education in Bholi.”
- “Power of Hope in A Letter to God.”
- “Courage and Leadership in Nelson Mandela.”

Worksheet

SECTION A – TENSES

Q1. Fill in the blanks with the correct form of the verbs given in brackets.

1. The Earth _____ (revolve) around the Sun.
2. Riya _____ (prepare) for her board examinations these days.
3. The players _____ (practice) for two hours before the rain started.
4. By next week, the students _____ (complete) their practical files.
5. My grandmother _____ already _____ (cook) dinner before we arrived.
6. The train _____ (leave) before we reached the station.
7. If you work sincerely, you _____ (achieve) success.
8. While the teacher _____ (teach), the principal entered the classroom.
9. They _____ (watch) a movie tomorrow evening at this time.
10. I _____ never _____ (meet) such a generous person before.

Q2. Identify the tense used in the following sentences.

1. She has been reading for two hours. _____
2. We visited Jaipur last winter. _____
3. The baby is sleeping peacefully. _____
4. They will have completed the work by Monday. _____
5. I write poems in my free time. _____

SECTION B – DETERMINERS

Q3. Fill in the blanks using suitable determiners.

1. _____ students of our class participated in the competition.
2. There isn't _____ sugar left in the jar.
3. _____ books on the shelf belong to the library.
4. He did not make _____ mistake in the test.
5. _____ child deserves proper education.
6. She bought _____ umbrella because it was raining heavily.

Q4. Choose the correct determiner.

1. There are _____ apples in the basket.
   a) much
   b) little
   c) many
   d) any
2. I have _____ information regarding the event.
   a) many
   b) some
   c) few
   d) several
3. _____ of the two girls won the competition.
   a) Each
   b) Many
   c) Much
   d) Little

SECTION C – SUBJECT–VERB AGREEMENT

Q5. Choose the correct verb form.

1. One of the boys _____ selected for the final match.
   a) were
   b) are
   c) was
   d) have
2. Either the principal or the teachers _____ attending the seminar.
   a) is
   b) was
   c) are
   d) has
3. Mathematics _____ my favourite subject.
   a) are
   b) were

c) is
d) have

4. The quality of these products _____ excellent.
   a) are
   b) were
   c) is
   d) have
5. Neither the players nor the coach _____ aware of the changes.
   a) were
   b) are
   c) is
   d) has
6. A bouquet of roses _____ lying on the table.
   a) were
   b) are
   c) is
   d) have

SECTION D – MODALS

Q6. Fill in the blanks with suitable modals.

1. You _____ obey the traffic rules.
2. _____ I use your pen for a moment?
3. Students _____ complete their homework on time.
4. We _____ hurry or we will miss the train.
5. He _____ speak French fluently when he was young.

Q7. Choose the correct modal.

1. You _____ wear a helmet while riding a bike.
   a) may
   b) must
   c) can
   d) might
2. _____ you please help me with this assignment?
   a) Shall
   b) Could
   c) Must
   d) Need
3. We _____ not waste water.
   a) should
   b) can
   c) may
   d) could

SECTION E – DIRECT AND INDIRECT SPEECH

Change the following sentences into indirect speech.

1. Rahul said, “I am working on my project.”
2. Mother said to me, “Finish your homework before dinner.”
3. The teacher said, “Honesty is the best policy.”
4. He said to her, “Will you help me tomorrow?”
5. The doctor said, “Take medicine regularly.”
6. She said, “I have completed my assignment.”
7. The boys said, “We were playing football.”

Q1. Read the conversation given below and complete the paragraph that follows.

Riya: Where are you going, Aman?
Aman: I am going to the library.
Riya: Can I come with you?
Aman: Yes, you can.

Riya asked Aman where he was going. Aman replied that he _____ to the library. Riya then asked if she _____ with him. Aman replied positively and said that she _____.

Q2. Read the dialogue and complete the paragraph.

Mother: Have you completed your homework?
Rohan: No, I am still doing it.
Mother: Finish it before dinner.

Mother asked Rohan if he _____ his homework. Rohan replied that he _____ still doing it. Mother instructed him _____ it before dinner.

Q3. Read the conversation and complete the paragraph.

Teacher: Why were you absent yesterday?
Student: I was ill.
Teacher: You should submit the medical certificate tomorrow.

The teacher asked the student why he _____ absent the previous day. The student replied that he _____ ill. The teacher advised him that he _____ submit the medical certificate the next day.

Q4. Read the dialogue and complete the paragraph.

Neha: Do you like reading novels?
Anjali: Yes, I love mystery novels.
Neha: Which is your favourite book?

Neha asked Anjali if she _____ reading novels. Anjali replied positively and said that she _____ mystery novels. Neha further asked which _____ favourite book.

Q5. Read the dialogue and complete the paragraph.

Father: What are your plans for the holidays?
Son: I want to visit Jaipur with my friends.
Father: You must take care of your belongings.

Father asked his son what his plans for the holidays _____. The son replied that he wanted to visit Jaipur with his friends. Father advised him that he _____ take care of his belongings.

Q6. Read the dialogue and complete the paragraph.

Police Officer: Did you see the accident?
Man: Yes, I saw a speeding car hit the bike.
Police Officer: Please give your statement at the police station.

The police officer asked the man if he _____ the accident. The man replied positively and said that he _____ a speeding car hit the bike. The police officer requested him _____ his statement at the police station.

Q7. Read the conversation and complete the paragraph.

Priya: Are you attending the science exhibition tomorrow?
Kunal: Yes, our class has prepared a working model.
Priya: That sounds interesting.

Priya asked Kunal if he _____ attending the science exhibition the next day. Kunal replied positively and said that their class _____ prepared a working model. Priya remarked that it _____ interesting.

Q8. Read the dialogue and complete the paragraph.

Doctor: How are you feeling now?
Patient: I am feeling much better.
Doctor: You should take proper rest for two days.

The doctor asked the patient how he _____ feeling then. The patient replied that he _____ feeling much better. The doctor advised him that he _____ take proper rest for two days.

Competency-Based Questions

1. Nelson Mandela: Long Walk to Freedom

Nelson Mandela believed that true freedom means respecting the freedom of others as well. How can young people contribute towards creating a more equal and peaceful society today?
(Answer in 100–120 words.)

2. Fire and Ice

The poem shows how emotions like desire and hatred can destroy the world. Explain how uncontrolled emotions can negatively affect relationships and society in today's time.
(Answer in 100–120 words.)

3. A Letter to God

Lencho showed complete faith in God even during difficult times. Do you think faith and optimism help people face challenges more effectively? Give reasons with examples.
(Answer in 100–120 words.)

4. The Thief's Story

Hari Singh changed because Anil trusted and supported him instead of punishing him. Explain how kindness and trust can help reform a person better than strict punishment.
(Answer in 100–120 words.)

Maths

Q.1. Practical file
Roll no 1 to 5 - Real numbers
Roll no 6 to 10 - Polynomials
Roll no 11 to 15 - Pair of Linear equations in two variables
Roll no 15 to 20 - Quadratic equations
Roll no 21 to 25 - Coordinate Geometry
Roll no 26 to 29 - Real numbers

[**Real Numbers:** Introduction and definition of real numbers, classification of numbers (natural, whole, integers, rational and irrational), Euclid's division lemma, Fundamental Theorem of Arithmetic, HCF and LCM, decimal expansion of rational numbers, important formulas and properties, solved examples, real life applications and conclusion.

Polynomials: Introduction and definition of polynomials, degree and types of polynomials, zeros of polynomial, relationship between zeros and coefficients, graphical representation of polynomials, algebraic identities, solved examples, applications and conclusion.

Pair of Linear Equations in Two Variables: Introduction and definition, formation of equations, graphical method of solution, substitution method, elimination method, cross multiplication method, consistency of equations, graphical interpretation, solved examples, real life applications and conclusion.

Quadratic Equations: Introduction and standard form of quadratic equation, methods of solving quadratic equations (factorisation, completing square, quadratic formula), discriminant and nature of roots, graphs of quadratic equations, important formulas, solved examples, applications and conclusion.

Coordinate Geometry: Introduction and history, Cartesian plane, x-axis and y-axis, coordinates of a point, distance formula, section formula (if required), graphical representation, plotting points, solved examples, applications in maps and navigation, interesting facts and conclusion.]

And write contributions of 3 Indian mathematicians and 2 foreign mathematicians in the mathematics field with their photos. (For all students in same practical file)
Q. 2. Do lab manual activities 1 to 10 by using coloured sheets and graphs given at the back of the lab manual.

4. Complete the following **worksheet i**n the Maths notebook

Section – A (MCQs)
1. If the quadratic equation $9x^2 + 8kx + 16 = 0$ has real and equal roots, then the value of k is:
(a) 3 (b) –4 (c) –3 (d) 3/2
2. Observe the graph of polynomial P(x). The number of zeroes of the polynomial is:

(a) 2 (b) 3 (c) 4 (d) 5

3. The value of k for which the system of linear equations $x/2 + y/3 = 5$ and $2x + ky = -7$ is inconsistent is:

(a) ¾ (b) 4/3 (c) 1/3 (d) 3

4. The HCF of 210 and 55 is:

(a) 15 (b) 10 (c) 5 (d) 11

5. The number of zeroes of a quadratic polynomial can be:

(a) 0 (b) 1 (c) 2 (d) Any of these

6. If two positive integers a and b are written as $a = x^3y^2$ and $b = xy^3$, where x, y are prime numbers, then HCF(a, b) is:

(a) xy (b) xy^2 (c) x^3y^3 (d) x^2y^2

7. If one zero of the quadratic polynomial $x^2 + 3x + k$ is 2, then the value of k is:

(a) 10 (b) -10 (c) -7 (d) -2

8. The pair of equations $x + 2y + 5 = 0$ and $-3x - 6y + 1 = 0$ has:

(a) a unique solution (b) exactly two solutions (c) infinitely many solutions (d) no solution

9. Which of the following equations has two distinct real roots?

(a) $2x^2 - 3.4x + 1 = 0$ (b) $x^2 + x - 5 = 0$ (c) $x^2 + 3x + 2\sqrt{2} = 0$ (d) $5x^2 - 3x + 1 = 0$

10. If the common difference of an AP is 5, then what is the value of $a_{18} - a_{13}$?

(a) 5 (b) 20 (c) 25 (d) 30

11. Assertion – Reason

Assertion (A): $\sqrt{3} + \sqrt{5}$ is an irrational number.

Reason (R): The sum of any two irrational numbers is always irrational.

12. Assertion (A): The sequence -10, -6, -2, 2, …….. forms an Arithmetic **Progression.**

Reason (R): In an AP, the difference between any two consecutive terms remains constant throughout the sequence.

(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.

Section – B

Short Answer Questions – I (Very Short Type Questions)

13. Verify that the roots of the quadratic equation $(p-q)x^2 + (q-r)x + (r-p) = 0$ are equal when $q + r = 2p$.

14. Prove that the given number $2 + 3\sqrt{5}$ is irrational, provided that $\sqrt{5}$ is irrational.

15. Find the value of n, if the HCF of 210 and 55 is written as: $210 \times 5 + 55 \times n$

16. Prove that $\sqrt{5}$ is an irrational number. [Repeated CBSE PYQ]

17. Find the zeroes of the quadratic polynomial $6x^2 - 3 - 7x$ and verify the relationship between the zeroes and the coefficients.

18. For what value of k will the following pair of linear equations have infinitely many solutions? $kx + 3y - (k - 3) = 0$ and $12x + ky - k = 0$

19. Find the discriminant of the quadratic equation $2x^2 - 4x + 3 = 0$, and hence deduce the exact nature of its roots.

Section – C (Short Answer Questions)

20. In a class test, Veer scored 6 points more than twice the marks scored by Kiran. If together they scored 40 marks, find the marks obtained by Veer and Kiran.

21. Solve graphically: $3x + y = 14$ and $y = 2$

22. Find the greatest number less than 10,000 which is exactly divisible by 48, 60, and 65.

23. Find the HCF and LCM of 404 and 96 and verify that HCF × LCM = Product of the two given numbers.

24. If α and β are the zeroes of the quadratic polynomial $f(x) = x^2 - p(x + 1) - c$, show that $(\alpha + 1)(\beta + 1) = 1 - c$.

25. Solve the following pair of linear equations algebraically or by substitution/elimination:

$(x / a) + (y / b) = a + b$

$(x / a^2) + (y / b^2) = 2$

26. Find the total sum of all two-digit natural numbers that are perfectly divisible by 4.

Section – D (Long Answer Questions)

27. A person on tour has ₹5400 for his expenses. If he extends his tour by 5 days, he has to reduce his daily expenses by ₹180. Find the original duration of the tour and the daily
expenses.

28. The total cost of a piece of cloth was ₹2100. During a special sale, the shopkeeper offered 2 m extra cloth for free, thereby reducing the price per metre by ₹120. Find the original
price per metre and the original length of the cloth.

29. A motor boat whose speed is 18 km/h in still water takes 1 hour more to go 24 km upstream than to return downstream to the same spot. Find the speed of the stream.

30. The sum of the 4th and 8th terms of an AP is 24 and the sum of the 6th and 10th terms is 44. Find the first three terms of this AP. Also, compute the sum of its first 20 terms.

Section – E (Case Study Based Question)

31. Case Study- Flooring Design

A school wants to decorate its activity hall using square tiles. The length and breadth of the hall are 480 cm and 360 cm, respectively. The contractor wants to use the largest possible square tiles so that no tile needs to be cut.

Answer the following questions:

1. Find the side length of the largest square tile that can be used. (1 mark)
2. How many such tiles will be required to cover the floor completely? (2 marks)
3. Which mathematical concept is used in this problem? (1 mark)
(a) HCF
(b) LCM
(c) Quadratic Equation
(d) Polynomial Zeroes

32. A premier tech company expanding operations in India is setting up its new workspace backend infrastructure. In the first month, they configure 20 secure server nodes. To reliably keep up with rapidly scaling user demands, the engineering team plans to systematically increase the number of deployed server nodes by 8 every subsequent month.

1. Formulate an Arithmetic Progression (AP) representing the number of server nodes configured each month. Explicitly state the first term (a) and the common difference (d).
2. Find the exact number of secure server nodes configured specifically in the 12th month.
3. Compute the total cumulative number of server nodes configured by the company over the course of the first two years (24 months).

Science

Chemistry

Q 1. Project Files to be prepared on the following topics:

Roll No. 1&2
Topic: Study of neutralisation reaction and heat change (exothermic nature)

Roll No. 3&4
Topic: Investigation of the cleaning action of soaps in hard and soft water

Roll No. 5&6
Topic: Study of corrosion and methods to prevent it (galvanization, painting, etc.)

Roll No. 7&8
Topic: The chemistry of baking: Role of Baking Soda vs. Baking Powder.

Roll No. 9&10
Topic: The pH Rainbow: Creating Natural Indicators from the plants and pH analysis, test their colour changes with Acids, Bases, and Salts.

Q 2. Complete the Following Worksheet in the Chemistry Notebook:
Section A: MCQs (1 Mark Each)

Q1. Which of the following turns red litmus blue?

a) Hydrochloric acid
b) Sulphuric acid
c) Sodium hydroxide
d) Acetic acid

Q2. The gas released when zinc reacts with dilute hydrochloric acid is:

a) Oxygen
b) Hydrogen
c) Carbon dioxide
d) Chlorine

Q3. Which of the following is a natural indicator?

a) Phenolphthalein
b) Methyl orange
c) China rose
d) Sodium chloride

Q4. The pH value of a neutral solution is:

a) 0
b) 14
c) 5
d) 7

Q5. Baking soda is chemically known as:

a) Sodium carbonate
b) Sodium hydrogen carbonate
c) Calcium carbonate
d) Sodium chloride

Assertion–Reason Question

Q6. Assertion (A): All acids conduct electricity in aqueous solution.
Reason (R): Acids produce ions in water.

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.

Section B: Short Answer Questions

Q7. Write two differences between acids and bases.

Q8. What happens when dilute hydrochloric acid reacts with magnesium ribbon? Write the chemical equation.

Q9. Why should acids be diluted by adding acid to water and not water to acid?

Q10. Define universal indicator. What does a pH value less than 7 indicate?

Q11. Name the raw materials used in the chlor-alkali process and write one product obtained from it.

Section C: Short Answer Questions

Q12. Explain the reaction of metallic oxides with acids with an example.

Q13. Describe an activity to show that acids conduct electricity in aqueous solution.

Q14. What is water of crystallisation? Give two examples of salts containing water of crystallisation.

Q15. Differentiate between washing soda and baking soda on the basis of:

1. Chemical formula
2. One use
3. Nature

Q16. Write the chemical reactions involved in the preparation of:

a) Bleaching powder
b) Baking soda
c) Washing soda

Section D: Case Study

Q17. Riya was experimenting in the laboratory. She added dilute hydrochloric acid to sodium carbonate. A gas was evolved and passed through lime water. The lime water turned milky.

Answer the following questions:

a) Name the gas evolved.
b) Write the chemical equation for the reaction between sodium carbonate and hydrochloric acid.

c) Why does lime water turn milky?
d) Write the chemical formula of lime water.

Section E: Long Answer Question

Q18. Explain the preparation, properties, and uses of bleaching powder. Include balanced chemical equations in your answer.

Biology

Roll no.11&12- Life cycle of Household waste.
Roll no.**13&14**- Management of GRollarbage : e- waste
Roll no.15&16- Treatment of Sewage
Roll no.17&18: Alternative Natural fabric.
Roll no.19&20: Recycling of Different Plastic Materials.

Note: Make a Project file for the same topic that has been allotted.
1. Practical files should be in proper format.
A. Cover Page (Title of the Project, Subject, Student Name, Class & Section, Roll Number, School Name, Teacher's Name, Session (e.g., 2025–26))
B. Acknowledgement
Write a short thank-you note.
C. Objectives
Mention what you aim to learn.
D. Index (Table of Contents)
List all sections with page numbers.
E. Introduction
Brief explanation of the topic (1 page).
F. Main Content
This is the core part: (Explanation of concepts, Diagrams/charts (if needed), Examples, etc.)
G. Observation / Analysis
H. Conclusion (Summarize your learning in 4–5 lines.)
I. Bibliography -List sources used.
2. Use a green coloured Paper folder or a handmade folder (Don't use plastic folders)
3. Write neatly.
4. A practical file should consist of at least 20 pages.

Biology Worksheet

Chapter: Life Processes

Section A –

Multiple Choice Questions

1. Which of the following is not a life process?

a) Nutrition

b) Respiration

c) Photosynthesis

d) Playing

2. The mode of nutrition in green plants is:

a) Heterotrophic

b) Saprophytic

c) Autotrophic

d) Parasitic

3. The enzyme present in saliva is:

a) Pepsin

b) Trypsin

c) Amylase

d) Lipase

4. The functional unit of the kidney is:

a) Neuron

b) Nephron

c) Alveoli

d) Villi

5. Which blood vessel carries oxygenated blood from lungs to the heart?

a) Pulmonary artery

b) Vena cava

c) Pulmonary vein

d) Aorta

6. Exchange of gases in the lungs takes place in:

a) Bronchi

b) Trachea

c) Alveoli

d) Diaphragm

7**. Assertion (A):** The small intestine is the main site for absorption of digested food.
Reason (R): The inner lining of the small intestine contains numerous villi that increase surface area for absorption.

8**. Assertion (A):** During vigorous exercise, muscle cells may perform anaerobic respiration.
Reason (R): Oxygen supply becomes insufficient in muscles during intense physical activity.

Section B–

Very Short Answer Questions

1. Define life processes.
2. Write two differences between autotrophic and heterotrophic nutrition.
3. Name the four chambers of the human heart.

4. What is the role of stomata?

Section C –

Short Answer Questions

1. Explain the process of photosynthesis with the chemical equation.
2. Describe the pathway of food in the human digestive system.
3. Differentiate between aerobic and anaerobic respiration.

Section D –

Case Study

1. Riya often skips breakfast and eats fast food during school breaks. Recently, she complained of stomach pain, acidity, and indigestion. During a biology class, her teacher explained that digestion involves the mechanical and chemical breakdown of food with the help of digestive enzymes and digestive glands.

Answer the following questions:

i)Which organ secretes hydrochloric acid and digestive juices?

a) Liver

b) Stomach

c) Pancreas

d) small intestine

ii)What is the role of hydrochloric acid in the stomach?

iii)Name the enzyme present in saliva and write its function.

iv)Which part of the alimentary canal is mainly responsible for absorption of digested food?

OR

iv)Why can skipping meals and frequent junk food intake affect digestion?

2) A doctor advised a patient suffering from asthma to avoid dusty areas. The doctor explained that respiration involves the exchange of gases in the lungs through tiny air sacs.

Answer the following:

i)Name the tiny air sacs present in the lungs.

ii)What is the function of these structures?

iii)Which gas enters the blood from the lungs?

iv)Which pigment carries oxygen in blood?

OR

iv)Why can dust affect breathing in asthma patients?

Section E:

Long Answer Question

1. Draw a labelled diagram of the human heart and explain double circulation in humans
2. Why are alveoli numerous and thin-walled? Why does smoking affect the efficiency of respiration?

Physics project

Question no-01

Roll no 21 and 22.

Study the variation of the refractive index of different materials

Roll no 23 and 24

Dispersion of light through a prism

Roll no 25 and 26

Study the variation of resistance of conductors and the factors affecting it

Roll no 27 and 28

Study the formation of images by convex and concave lenses

Roll no 29

Study the magnetic field, study the behaviour of the magnetic field due to a magnet and a current-carrying wire

Question no. 02.

Worksheet: Complete the following questions

Section A

1- Which of the following phenomena is not the result of total internal reflection?

a) Looming
b) Sparkles of the diamond
c) Mirage
d) Twinkling of stars

1. When an object is placed at a distance of 15 cm from a concave mirror, its image is formed at 10 cm in front of the mirror. The focal length of the mirror:

a) 10 cm
b) 4 cm
c) 8 cm
d) 6 cm

2. A full-length image of a distant tall building can definitely be seen by using

a) both concave and plane mirrors
b) a plane mirror
c) a concave mirror
d) a convex mirror

3. Which of the following diagrams gives a correct picture?

a)
b)
c)
d)

4. The colour of light for which the refractive index of glass is minimum, is:

a) Yellow

b) Green
c) Red
d) Violet

5. A sharp image of a distant object is obtained on a screen by using a convex lens. To determine the focal length of the lens, you need to measure the distance between the

a) lens and the object
b) object and the screen
c) lens and the screen
d) None of these

6. To obtain a magnification of +2 with a concave mirror of radius of curvature 60 cm, the object distance must be

a) - 90 cm
b) - 45 cm
c) - 30 cm
d) - 15 cm

7. A piece of red cloth, when suitably illuminated, may look black, but a piece of black cloth will never appear red. This phenomenon occurs because:

a) red cloth reflects all colours
b) Black cloth reflects all colours
c) Black cloth reflects only black light
d) Black absorbs all the colours

8. The angle to which an incident ray deviates on getting reflected from a surface is

a) 180 -
b) 180 - 2
c) 2
d)

9. When does a concave mirror form a real and enlarged image of an object?

a) when the object is placed at F
b) when the object is placed between F and P
c) when the object is placed at 2F
d) when the object is placed between F and C

10. While experimenting with a candle to find the focal length of a concave mirror, the candle is placed between:

a) pole and focus
b) at focus

c) focus and centre of curvature
d) beyond focus

11. PQRS shows the walls of a room, each measuring 8 m, such that wall PQ has a full-length plane mirror. A camera is placed at point M, the midpoint of wall SR. In order to take a clear image of the point R, the camera should be focused on.

a) More than 16 metres
b) 16 m
c) 8 m
d) 4 m

12. The laws of reflection hold for:

a) convex mirrors only
b) concave mirrors only
c) all reflecting surfaces
d) plane mirrors only

13. The angle between an incident ray and the plane mirror is 30°. The total angle between the incident ray and reflected ray will be:

a) 120°
b) 90°
c) 60°
d) 30°

14. The real image formed by a concave mirror is larger than the object when the object is:

a) between the focus and centre of curvature
b) at a distance less than the focal length
c) at a distance greater than the radius of curvature
d) at a distance equal to the radius of curvature

15. How will the image formed by a convex lens be affected if the upper half of the lens is wrapped with black paper?

a) The brightness of the image will reduce.
b) The lower half of the inverted image will not be formed.
c) The image of the upper half of the object will not be formed.
d) The size of the image formed will be one - half of the size of the image due to the complete lens.

16. A bundle of light rays is called a

a) Arrows of light
b) Pool of light

c) Beam of light
d) Bunch of light

17. Your school laboratory has one large window. To find the focal length of a concave mirror using one of the walls as the screen, the experiment may be performed:

a) on the wall adjacent to the window
b) on the same walls as the window
c) only on the table as per the laboratory arrangement
d) near the wall opposite to the window

18. How many images are seen when a ray of light gets reflected by two plane mirrors which are set up at an unknown angle between them that the ray undergoes a deviation of 200?

a) 4
b) 5
c) 3
d) 2

19. In a convex spherical mirror, reflection of light takes place at:

a) a bulging - out surface
b) a bent - in surface
c) an uneven surface
d) a flat surface

Social Science

Q.1 Project Files to be prepared on the following topics:
Roll No. 1 to 10 - Globalisation and the Indian Economy
Roll No. 11 to 20 - Sustainable Development
Roll No. 21 – 29 - Sectors of the Indian Economy
Q. 2 Complete the Following Worksheet in the History Notebook:

SOCIAL SCIENCE WORKSHEET
Chapter: Nationalism in India
1. Who among the following led the Champaran Satyagraha?
a) Subhas Chandra Bose
b) Bal Gangadhar Tilak
c) Mahatma Gandhi
d) Jawaharlal Nehru

2. Which one of the following movements was launched after the Jallianwala Bagh incident? (CBSE 2020)

a) Civil Disobedience Movement
b) Non-Cooperation Movement
c) Quit India Movement
d) Swadeshi Movement

3. Assertion (A): Mahatma Gandhi returned to India from South Africa in 1915.
Reason (R): Gandhiji wanted to start a movement for peasants and workers in India.
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.

4. Assertion (A): The Rowlatt Act was opposed by Indians.
Reason (R): It gave the government enormous powers to repress political activities. (CBSE 2022)
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.

Q5. State whether the following statement is True or False:
“During the Civil Disobedience Movement, people were asked not to cooperate with the British Government.” (CBSE 2019)
a) True
b) False
Q6. Explain any two reasons for the launch of the Non-Cooperation Movement. (CBSE 2018)

Q7. What was the impact of the Jallianwala Bagh massacre on the Indian national movement?

Q8. Describe the role of the ‘Salt March’ in the Civil Disobedience Movement. (CBSE 2020)

9. Why did Mahatma Gandhi organize the Khilafat Movement? (CBSE 2017)

10. Mention any two methods used by Indians to oppose the Simon Commission.

11. Explain the causes and effects of the Civil Disobedience Movement. (CBSE 2023)

12. Describe the economic effects of British rule that led to the growth of nationalism in India. (CBSE 2019)

13. Explain the role of different social groups in the Non-Cooperation Movement. (CBSE 2021)

14. Why did the Non-Cooperation Movement gradually slowdown in cities? Explain any four reasons. (CBSE 2018)

15. “Nationalism spread when people began discovering their unity in the process of struggle with colonialism.” Justify the statement. (CBSE 2022)

16. Read the source given below and answer the questions that follow:
The Sense of Collective Belonging Nationalism spreads when people begin to believe that they are all part of the same nation. The identity of the nation is symbolized in figures or images. During the freedom struggle, the image of Bharat Mata was created through literature, songs and paintings. Bankim Chandra Chattopadhyay wrote Vande Mataram, which was later widely sung during the Swadeshi Movement. Ideas of nationalism also developed through revival of Indian folklore and history.

16.1 Who wrote the song Vande Mataram?
a) Rabindranath Tagore
b) Bankim Chandra Chattopadhyay
c) Sarojini Naidu
d) Subhas Chandra Bose

16.2 What was the purpose of creating the image of Bharat Mata?

16.3 Mention any two ways through which nationalism spread among Indians. (CBSE 2020)

IT

Digital Projects and Presentations (IT Skills)
Roll no 1 to 7
1. Spreadsheet Analysis: Use OpenOffice Calc/MS Excel to analyse data using scenarios, goal seeks, and macros.
Roll no. 8 to 14
2. Activity Poster Making: -
Topic: “Importance of Effective Communication”
Use chart paper
Include:
Slogan

Images/drawings
Key points

Roll no. 15 to 21

3. Activity: Digital Poster

Create a poster using:

MS Word / PowerPoint / Canva
Topic: “Cyber Safety Rules”

Include:

Dos and Don’ts
Images/icons

Roll no. 22 to 32

4. Activity: Internet Research
Topic: “Uses of ICT in Education”

Write:

5 uses
3 advantages
2 disadvantages

Worksheet

Section A – Multiple Choice Questions

1. Self-management helps a person to:
   a) Waste time
   b) Manage emotions and responsibilities
   c) Avoid goals
   d) Ignore work
2. SMART goals are:
   a) Simple and Meaningful
   b) Specific, Measurable, Achievable, Realistic, Time-bound
   c) Short and Modern
   d) Strong and Motivational
3. Which of the following is a stress management technique?
   a) Time management
   b) Overthinking

c) Anger
d) Carelessness

4. Self-awareness means:
   a) Understanding one’s strengths and weaknesses
   b) Ignoring emotions
   c) Comparing with others
   d) Avoiding responsibilities
5. Which quality improves decision-making skills?
   a) Laziness
   b) Self-confidence
   c) Fear
   d) Carelessness
6. LibreOffice Calc is a:
   a) Word processor
   b) Spreadsheet software
   c) Presentation software
   d) Drawing software
7. Which function is used to calculate the average of values?
   a) SUM()
   b) MAX()
   c) AVERAGE()
   d) COUNT()
8. A formula in Calc always begins with:
   a) @
   b) =
   c) #
   d) &
9. Which chart is best for showing parts of a whole?
   a) Bar chart
   b) Pie chart
   c) Line chart
   d) Area chart
10. Cell reference B5 means:
    a) Row B and Column 5
    b) Column B and Row 5
    c) Worksheet B
    d) Formula B5

Section B – Short Answer Questions

1. Define self-management.
2. What are SMART goals?
3. Mention any two benefits of self-awareness.
4. Write two stress management techniques.

5. Why is self-confidence important?
6. What is a spreadsheet?
7. Define a formula in LibreOffice Calc.
8. What is the use of charts in Calc?
9. Name any two functions used in Calc.
10. Differentiate between relative and absolute cell references.

Section C – Long Answer Questions

1. Explain the importance of self-management skills in professional and personal life.
2. Describe different ways to manage stress effectively.
3. Explain SMART goals with suitable examples.
4. Explain the features of LibreOffice Calc.
5. Describe the steps to create and format charts in Calc.
6. Explain different types of cell references with examples.

Section D – Application-Based Questions

1. Ankit gets distracted while studying and fails to complete his work on time.
    - Which self-management skill is lacking?
    - Suggest two ways to improve it.
2. Simran wants to score better marks in board exams. She prepares a study timetable and sets weekly targets.
    - Which self-management technique is she using?
    - Explain how it will help her achieve success.
3. A teacher wants to prepare a result sheet showing total marks, average marks, and highest marks of students.
    - Which functions should be used in Calc?
    - Explain their purpose briefly.