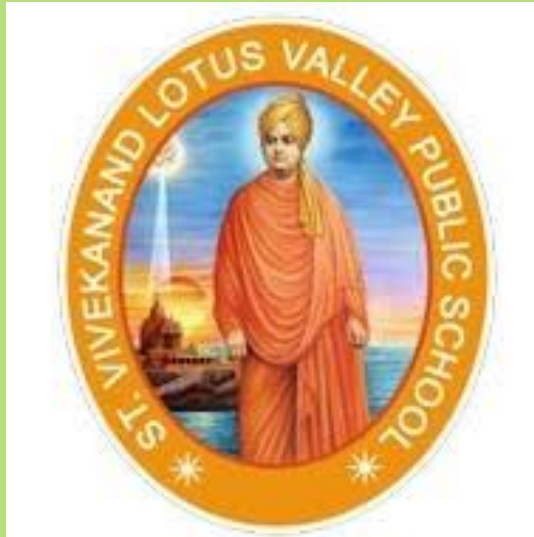




SUMMER HOLIDAYS

HOMEWORK FOR CLASS

XI

SESSION(2026-27)

**“Vacation is the time to
discover, create, learn, and
grow.”**

Dear Students,

Holidays are not only meant for rest and enjoyment but also for exploring new ideas and improving your creativity. The holiday homework has been carefully planned to make learning interesting, meaningful, and enjoyable for you.

Complete your work with honesty, neatness, and dedication. Make a balance between study and recreation so that your holidays become both productive and refreshing.

Read good books, practice healthy habits, spend quality time with your family, and try to learn something new every day.

Remember: ✨ Success comes to those who work sincerely.

✨ Every small effort adds to your knowledge and confidence.

✨ Learning during holidays keeps your mind active and creative.

May your holidays be filled with happiness, positivity, and valuable learning experiences.

✨ Stay Safe • Stay Healthy • Keep Learning ✨

Best Wishes for a Happy and Productive Vacation!

GENERAL INSTRUCTIONS:-

- **Complete all the assigned work sincerely and submit it on the given date.**
- **Maintain neatness, proper presentation, and clarity in all subjects.**
- **Read the instructions of each task carefully before starting.**
- **Make proper use of textbooks, notebooks, and other reference materials whenever required.**
- **Parents/Guardians are requested to guide and encourage their children while completing the homework.**

Important Guidelines

- **Revise all completed work before submission.**
- **Keep your handwriting neat and your work well-organized.**

Feel free to contact subject teachers for any clarification or help.

ENGLISH

Section A: Hornbill & Snapshots

Prepare the following assignment questions.

(Answer in about 120–150 words each.)

- 1 Describe the relationship between the grandmother and the author in The Portrait of a Lady.
- 2 How did the grandmother react to the author's education in the city?
- 3 What values do you learn from the grandmother in The Portrait of a Lady?
- 4 Why did the narrator visit Mrs Dorling in The Address?
- 5 How does The Address present the pain of war and loss?
- 6 Describe the courage shown by the family in We're Not Afraid to Die... If We Can All Be Together.
- 7 How did the family survive the dangerous storm at sea?
- 8 Explain the theme of determination and bravery in We're Not Afraid to Die...
- 9 What message does Discovering Tut: The Saga Continues convey about history and science?
- 10 Why was Tutankhamun's mummy examined again?
- 11 Explain the poet's feelings in the poem A Photograph.
- 12 How does the poem A Photograph deal with loss and memories?
- 13 Describe the transformation shown in The Laburnum Top.
- 14 Explain the central idea of The Voice of the Rain.
- 15 How does Walt Whitman personify rain in The Voice of the Rain?

Section B: Writing Skills

Write ANY FIVE advertisements in proper format.

- 1 Lost and Found Advertisement
- 2 Situation Vacant Advertisement
- 3 To Let Advertisement
- 4 Sale of Bicycle/Car Advertisement
- 5 Tuition Classes Advertisement

6 Missing Pet Advertisement

Section C: SUBJECT ENRICHMENT ACTIVITY

Write a Project File on ANY ONE topic:

Option 1 – A Photograph

Include:

Introduction of the poet Shirley Toulson

Summary of the poem

Theme of loss and memories

Poetic devices

Important lines with explanation

Old family photographs/pictures

Personal reflection on memories

Conclusion

Option 2 – The Voice of the Rain

Include:

Introduction of the poet Walt Whitman

Central idea of the poem

Cycle of rain in nature

Personification used in the poem

Poetic devices

Importance of rain in life

Diagrams/pictures of water cycle

Conclusion

Section D: MODELS

Prepare ANY ONE of the following:

Prepare a working model related to the chapters/poems with a CREATIVE CHART presentation according to the allotted roll numbers . It is compulsory for all students as it is being conducted for assessment purpose.

1. The Voice of the Rain – Water Cycle Working Model	Roll no(1 to 10)
2. A Photograph – Memory Box / Photo Frame Model	Roll no(11 to 20)
3. We're Not Afraid to Die – Ship Survival Model	Roll no(21 to 30)
4. The Laburnum Top – Nature Diorama	Roll no(31 to 40)

Instructions

Complete all work neatly in a separate notebook/file.

Maintain proper handwriting and presentation.

Use coloured headings and relevant pictures for project work.

Project work should be handwritten and creative.

Submit the holiday homework after summer vacation positively.

HINDI

1. निम्नलिखित विषयों पर 100 से 120 शब्दों में रचनात्मक लेख लिखिए-

- (क) परीक्षा तनाव के कारण व इसे रोकने के उपाय
- (ख) उच्च शिक्षा हेतु छात्रों का विदेशों को पलायन
- (ग) दुर्घटना से देर भली
- (घ) भारतीय संस्कृति में अतिथि का स्थान
- (ङ) भारत की राष्ट्रीय समस्याएं

2. निम्नलिखित विषयों पर औपचारिक पत्र लिखिए-

- (क) यातायात के नियमों का उल्लंघन करने वालों के विरुद्ध कड़ी कार्रवाई करने तथा दो अन्य सुझाव देते हुए यातायात पुलिस आयुक्त को लगभग 120 शब्दों में पत्र लिखिए।
- (ख) आपका नाम सौरभ कुमार है। आप कक्षा ग्यारहवीं के छात्र हैं। आपकी अंग्रेजी विषय की पढ़ाई समय पर पूरी न होने के कारण विषय की अतिरिक्त कक्षाएं लगवाने हेतु प्रधानाचार्य जी को पत्र लिखिए।
- (ग) समाचार- पत्रों में विज्ञापनों की भरमार को कम करने और समसामयिक विषयों पर लेखन की आवश्यकता को दर्शाते हुए किसी दैनिक समाचार- पत्र के संपादक को पत्र लिखिए।
- (घ) समस्त औपचारिकताएं पूर्ण करने के बाद भी अभी तक आपको अपना पहचान पत्र (आधार कार्ड) नहीं मिला है। इस समस्या के समाधान हेतु संबंधित अधिकारी को पत्र लिखिए।
- (ङ) आप अजय जैन, गर्ग एंड संस कंपनी के मालिक हैं। उपभोक्ता द्वारा मंगवाए गए सामान की सूचना देते हुए पत्र लिखिए।

3. निम्नलिखित प्रश्नों के उत्तर पाठ्य पुस्तक आरोह (भाग 1) के आधार पर दीजिए-

- (क) 'नमक का दारोगा' कहानी से हमें क्या संदेश मिलता है?
- (ख) 'नमक का दारोगा' पाठ के आधार पर वंशीधर का चरित्र- चित्रण कीजिए।

- (ग) पंडित अलोपीदीन ने वंशीधर को नौकरी पर क्यों रखा? पाठ के आधार पर उत्तर दीजिए।
- (घ) मियां नसीरुद्दीन ने नानबाई का काम किससे और कैसे सीखा था?
- (ङ) मियां नसीरुद्दीन की अखबार वालों के प्रति क्या राय थी?
- (च) कोई भी कार्य छोटा नहीं होता, उस कार्य को करने की भावना श्रेष्ठ होनी चाहिए। 'मियां नसीरुद्दीन' पाठ के आधार पर उत्तर दीजिए।
- (छ) गुरु और शिष्य का रिश्ता अनूठा होता है। एक शिष्य तभी सफल होता है जब वह अपने गुरु के प्रति श्रद्धा एवं आदर भावना रखें और मेहनत एवं सत्यनिष्ठ भावना से कार्य करे। इस कथन की पुष्टि पाठ के आधार पर कीजिए।
- (ज) कबीर के अनुसार सभी तत्वों और प्राणियों का जन्म किससे हुआ है?
- (झ) मीरा ने किसको अपना पति मान लिया है ? उनके स्वरूप का वर्णन करें।
- (ञ) कल्पना करके लिखिए कि प्रेम प्राप्ति के लिए मीरा को किन-किन कठिनाइयों का सामना करना पड़ा होगा?

4.Activities-

- (क) जनसंचार के प्रमुख माध्यमों पर एक सुंदर आकर्षक मॉडल तैयार कीजिए।
- (ख) पानी की समस्या से निपटने के लिए कारगर उपाय A4 शीट पर दर्शाएं।
- (ग) किन्हीं 10 नारों का संकलन करके A4 शीट पर लिखिए।
- (घ) प्राचीन और वर्तमान गुरु शिष्य संबंधों में क्या अंतर आ गया है? इससे संबंधित एक सुंदर व आकर्षक मॉडल तैयार कीजिए।
- (ङ) 'लता मंगेशकर' जी का जीवन परिचय देते हुए परियोजना कार्य तैयार कीजिए।

टिप्पणी-

जुलाई लघु परीक्षा के लिए निम्नलिखित पाठ्यक्रम याद कीजिए-

गद्य भाग- नमक का दारोगा, मियां नसीरुद्दीन।

पद्य भाग- कबीर के पद ,मीरा के पद।

अपठित गद्यांश ,अपठित पद्यांश।

MATHS

ASSIGNMENT 1

Chapter#5. Complex Numbers and Quadratic Equations

Q.1 Solve the equation $2x^2 + x + 1 = 0$.

Q .2 Convert the given complex number in polar form: -3 .

Q.3 Express the given complex number in the form $a + ib$: $(1 - i) - (-1 + i6)$.

Q.4 Express the given complex number in the form $a + ib$: .

Q.5 Find the multiplicative inverse of the complex number .

Q.6 Express the given complex number in the form $a + ib$: $(1 - i)4$.

Q.7 Find the multiplicative inverse of the complex number $-i$.

Q.8 If $x - iy =$, then prove that $(x^2 + y^2)^2 =$.

Q.9 Solve : $x^2 + 2 = 0$ Q.14 Solve $4x^2 - 25i^2 = 0$

Q.10 Find the argument of .

Q.11 Express $i^9 + i^{10} + i^{11} + i^{12}$ in the form $a + bi$.

Q.12 Express : $i^9 + i^{19}$ in the form $a+bi$.

Q.13 Solve the quadratic equation $25x^2 - 30x + 11 = 0$

Q.14 Write the conjugate of complex number $-5 + 3i$.

ASSIGNMENT 2

Q.1 Solve : $2 \cos^2 x + 3 \sin x = 0$

Q.2 Evaluate : $\sin(40^\circ + \theta)\cos(10^\circ + \theta) - \cos(40^\circ + \theta)\sin(10^\circ + \theta)$

Q.3 Prove that $\cot x \cot 2x - \cot 2x \cot 3x - \cot 3x \cot x = 1$.

Q.4 Find the value of $\sin 150^\circ + \cos 300^\circ$.

Q.5 If in two circles, arcs of the same length subtend angles 75° and 120° at the centre, find the ratio of their radii.

Q.6 If in two circles, arcs of same length, subtend angles 120° and 150° at the centre, find the ratio of their radii

Q.7 Write the value of $\tan 15^\circ$.

Q.8 Find the value of $\cos 55^\circ + \cos 125^\circ + \cos 300^\circ$.

Q.9 Find the value of $\sin 15^\circ$.

Q.10 Prove that: $(\sin 3x + \sin x) \sin x + (\cos 3x - \cos x) \cos x = 0$. (3 marks)

Q.11 A wheel makes 360 revolutions in one minute. Through how many radians does it turn in one second? (1 mark)

Q.12 Prove that (3 marks)

Q.13 If $\cot 2A = \tan(n - 2)A$, then what is A? Q.16 Solve $\cos 2\theta - \cos \theta = 0$

Q.14 Prove that $\cos^2 A + \cos^2 B - 2 \cos A \cos B \cos (A+B) = \sin^2 (A+B)$

ACCOUNTANCY

Select the Correct Alternative

Solve these MCQ

Q1. Bookkeeping and accounting

A) mean same and are used. Interchangeably

B) means both a and b

C) doesn't mean same and are not used. Interchangeably

D) none of the above

Q2. Which of the following is not recorded in the books of accounts

A) Sales of goods

B) Payment of salary

C)Quality of staff. D)Purchase of goods.

Q3. Which of the following is not Subfield of accounting

A) bookkeeping B)management accounting

C)financial accounting D) cost accounting

Q4. which is the last step of accounting as a process of information

A) Recording the transaction

B) communication of information.

C)Preparation of financial statements

D)Analysis and interpretation of information.

Q5.Basic function of financial accounting is to

A) record all business transactions. B) assist the management

C)Inteepret financial data D)All of these

Q6. Transactions are posted into ledger account from.

A) Vouchers B)journal book C)bank statement. D)None

Q7. which one is the advantage of accounting

A) Replacement of memory

B) accounting does not record price level changes.

C)shows the present value of business

D)Accounting is not not fully exact

Q8. Which is the important objective of accounting

A) to keep systematic record of financial transactions

B) to ascertain the financial position of a business

C)to ascertain the net profit or loss of business

D)all of the above

Q9. which of the following is a limitation of accounting?

A) Assistance to management B)replaces memory.

C)Unrealistic information D)evidence in court

Q10. Capital is

A) internal liability B)external liability

C)internal as well as external liability. D)None of these

Q11. Goodwill is a/an

A) Tangible Assets B)Intangible Assets

C)Current Assets D)Fictitious Assets

Q12. Goods taken by the proprietor for personal use is

A) Sale B)drawings. C)Purchase D)none of these

Q13. The amount invested by proprietor in a business is called

A) Capital B)cash C)revenues. D)Loan,

Q14. The nature of capital is

A) an asset. B)A liability C)An income D)An expense

Q15. which of the following is a liability

A) furniture B)Rent payable C)interest received D)stock.

Q16. A person to whom money is owed by a firm for purchase of goods on credit is called a

A) Creditors B)Debtor C)Both D)none of these.

Q17. Which Of the following equation is correct

A) Assets+ capital = liabilities B) assets + liabilities = capital.

C)Assets- liabilities = capital D)None of these

Q18 Under the cash basis of accounting, expenses are recorded

A) On payment B)on being incurred C)either a or b. D)None

Q19. under the accrual basis of accounting expenses are recorded

A) on payment B)on being incurred C)either a or b. D)None of these

Q20. Accrual basis of accounting.

A) Does not give a true and fair view of profit and financial position

B) gives a true and fair view of profit and financial position

C) may or may not give a true and fair view of profit and financial position.

D) None of the above.

Q21. The liabilities of a firm are ₹3000 the capital of a proprietor is ₹,7000 the total assets are

A) 7000 B)10000 C)4000 D)none of these

Q22. Journal is called

A) a book of primary entry B) a book of final entry

C) a book of secondary entry,

D)both secondary entry and final entry,

Q23. Ledger Folio in the journal is filled. At the time of

A) journalizing B)Balancing C)posting D)costing

Q24. recording of transaction in a journal is called

A) posting B) journalizing C)Transfer D)ruling.

Q25. Which of the following accounts will be credited on giving cash donation

A) cash A/c B)donation A/c C)purchase A/c D)discount received A/c

Q26. sale of good to Ram for cash is debited to

A) Ram B) cash A/c C) Stock A/c D) Sales A/c

Q27. Withdrawal of cash from business by the proprietor is credit to.

A) Drawings A/c B) capital A/c C) cash A/c D) bank A/c

Q28. Bad debts earlier written off and now received are credited to

A) Bad debt A/c B) Bad Debt recovered A/c

C) Miscellaneous income A/c D) Debtor A/c

Q29. Within the state purchase of goods, which of the following is levied?

A) CGST B) SGST C) CGST And SGST D) SGST And CGST

Q30. Outside the state purchase of goods, which of the following GST is levied?

A) IGST B) IGST AND CGST C) CGS D) SGST

Solve these Questions in your note book

Q31. Use accounting equation to show the effect of the following transactions of M/S royal traders

A) started business with cash rupees. 1,20,000

B) Rent received ₹5000

C) Sold goods for cash costing (₹5000) ₹7000

D) purchase goods for cash rupees. 10000

E) salary outstanding ₹,2000.

F) goods destroyed by fire ₹,500

Q32. accounting equation from the following

A) started business with cash ₹ 100000 purchase goods for cash ₹,20000. And on credit ₹,30000

B) Sold goods for cash costing ₹,10000 and on credit costing ₹,15000 both at a profit of 20%

C) paid salaries ₹, 8000.

Q33. Calculate the amount of external equities as 31st March 2023 in the following cases.

A) On 31st, March 2023 total assets and capital were ₹,1500000 and 10,50,000 respectively.

B) On 1st April 202 Mukesh started business with a capital of ₹,300000 and a loan of ₹,300000 borrowed from a

friend. During the year, he earned a profit of ₹,150000 on 31st March 2023, the total assets were 1500000.

C) On 1st April 2022 Ramesh started business with the capital of ₹, 3,00,000 and a loan of ₹3Lakh borrowed from a

friend during the year. He earned a profit of ₹150000. Introduced a additional capital of ₹,180000 and had withdrawn ₹90000 for his personal use. On 31st March 2023 total assets were ₹,1500000.

Q34. Journalise the following transactions. A) purchase goods of the list price of ₹,20000 from Vishal at 20% trade discount against cheque payment

B) purchase goods of the list price of ₹20000 from Naman at 15% trade discount against cash.

C) purchase of the list price of ₹,30000 from Amrit at 20% trade discount.

D) Goods purchased from Amrit of the list price ₹,10000 returned.

Q35. Journalise the following Transactions

A) Goods costing ₹500 given away as charity

B) received ₹,975 from Harikrishna in settlement office account of ₹,1000

C) Received dividends of ,60 paise in a ₹, from the official receiver of Rajan, who owned us ₹1000.

D) Charge interest on drawing rupees. 1500

E) Sold, goods to Anil costing ₹40000 for cash at a profit of 25% on cost less 20% trade discount

F) Paid Cartage of ₹100 for free delivery of goods

G) paid income tax ₹,15000.

Q36. Pass journal entries for the following transactions of Akhil(CGST AND SGST @9%)

A) goods costing ₹5000 were taken by the proprietor for personal Use

B) Goods costing ₹2000 were given as donatio

C) Goods costing ₹ 3000 were given as sample.

D) Goods costing ₹5000 were lost in fire

E) commission Paid ₹9000

F) commission received ₹18000 by cheque.

Q37. Open a 'T' shape account of a creditor Mohan, and write the following transaction on the proper side:

A) Purchased Goods from Mohan on credit ₹,50000

B) Paid to Mohan ₹,30000

C) goods returned to Mohan 3000

D) Again Purchase goods from Mohan on credit 10000

Q38. Open a 'T' account of Gurman, a debtors the following transactions.

- A) Good sold to to Gurman ₹ 80000
- B) cash received from Gurman ₹ 30000
- C) discount allowed to Gurman ₹ 2000
- D) Goods sold for cash to Gurman 10000
- E) Cheque received from Gurman ₹20000
- F) Sales return by Gurman ₹ 50

BUSINESS STUDIES

What do you mean by Business. Explain. with their characteristics?

Q2. What do you mean by Profession Explain with their characteristics?

Q3. What do you mean by Employment . Explain with their characteristics?

Q4. Explain the Objectives of Business?

Q5. What do you mean by primary industry? Explain with their types?

Q6. What do you mean by Secondary industry? Explain with their types?

Q7. What is Auxiliary to trade?

Q8. Explain the stages of history of commerce?

Q9. Explain the indigenous banking system and explain the methods of indigenous banking system?

Q10. How business risk is created?

Q11. What do you mean by partnership? Explain the types of partnership.

Q12. What Sole proprietorship explain with their merits and limitations?

Q13. What joint family business with their merits and limitations?

Q14. Explain the characteristics of cooperative societies?

Q15. What do mean by partnership deed? Explain with their contents

PROJECT WORK

1. Digital Banking system

Leader: Anushikha

Aarushi

Sadhna

Vanshika

Bhumika

Angel

Khushi

2. Project: E- commerce

Leader: Aarti.

Pooja

Dipanshi

Drishti

Pratima

Mahi

Ishika

Kaushiki

3. Project: GST collection and distribution

Leader Priyanshu kansal

Tony

Madhav

Nishant

Jitender

Daksh

Harsh

4. Project: Smart supermarket

Leader Dhairya

Pranav

Lakshay

Nitesh

Krishna

Ankit

Yash

5. Project :insurance claim process

Leader: Priyanshu

Shubham nanda

Jashandeep

Bharat

Rishab

Sagar

Rohan

Nagendra

ECONOMICS

Ques 1 what is the difference between the planned economy and market economy

Ques 2 what are the tools used related to statistical study?

Ques 3 explain the scope of statistics

Ques 4 in what parameters is the statistical information published in the census of India?

Ques 5 what are the qualities of good questionnaire

Ques 6 what are the methods of collecting data ?

Ques 7 Name different methods of sampling

Ques 8 what is meant by census methods ? Give merits and demerits

Ques 9 compare the census and sampling methods of collecting data with reference to reliability, time involved and cost.

Ques 10 list the methods of classification of data.

Ques 11 when is frequency distribution with unequal classes more appropriate
Make a working model according to their groups

1) poverty and development model

Pooja,Ishika,Kaushik,Pratima,angel

2) supply of trade and e-commerce

Vanshika, sadhna,Anushka,aarushi,Aarti

3) inflation and price rise model

Pranav,Shubhangi,nitesh,jashan,Ankit,rishab

HISTORY

Ques 1 explain the role of temples in Mesopotamia society

Ques 2 discuss the social classes in Mesopotamia cities.

Ques 3 Describe the factors that led to the rise of cities in Mesopotamia. How did these cities function

Ques 4 explain the development of cuneiform script in Mesopotamia. Discuss it's uses and significance

Ques 5 analyze the role of kings and the concept of divine rule in Mesopotamia society.

Ques 6 explain the administrative structures of the ottoman empire

Ques 7 imagine that you are a Roman housewife preparing a shopping lists for household requirement. What would be on the lists?

Ques 8 why do you think the roman government stopped coining in silver?

Ques 9 some basic features of roman society and roman empire.

Ques 10 how was the economic and political condition of roman empire

Note All questions write in assignment sheets and also learn it.

POLITICAL SCIENCE

Ques 1 Explain the role of Indian constitution for the development of Indian politics?

Ques 2 differentiate between rights and duties?

Ques 3 Describe the need of election commission of India

Ques 4 what is equality?

discuss it's benefits and significance for Indian politics?

Ques 5 analyze the role of right to education in Indian constitution?

Ques 6 explain the forms of liberty and its value

Ques 7 why indian constitution known as bag of borrowing...?

Ques 8 what do you mean by writs? mention all types in detail?

Ques 9 some basic features of electoral process of india and what it's effect on society?

Ques 10 relationship between liberty and equality

Note All questions write in assignment sheets and learn it too.

chart work

1. indian constitution with borrowed countries flow chart

2. Assignment 2: **Analytical Case Study

.Write a short, 250-word analytical essay on the following topic: "Freedom of Expression vs. Reasonable Restrictions."Find a real-life recent news example where a citizen's right to free speech clashed with government restrictions. Argue whether the restriction imposed was justified.

3. Assignment 3: Creative Project Poster Making : Design an informative poster on an A4-sized sheet comparing the concepts of Liberty and Equality. Include slogans, illustrations, and real-world examples to show how they complement each other in a democratic society.

4. complete your notebooks and learn all above mentioned project

5. make sure you show your creativity and innovation in projects and assignments

PHYSICS

Arduino & Electronics Working Projects

Visual & LED Displays

- 1 RGB LED Mood Lamp: Design a touch-sensitive lamp that cycles through colors.
- 2 Scrolling LED Text Display: Create a desk-side message board using an 8 \times 8 LED matrix.
- 3 Binary Digital Clock: Build a functional timepiece that displays hours, minutes, and seconds in binary code.

Environmental & Sensor-Based Projects

- 4 OLED Weather Station: Develop a real-time monitor for ambient temperature and humidity.
- 5 Ultrasonic Distance Measurer: Construct a handheld tool that uses sound waves to measure distance, displayed on an LCD.
- 6 Light-Following Mini-Bot: Build a robot that autonomously steers toward the brightest light source in a room.
- 7 Servo-Controlled Pan-Tilt Camera Mount: Design a joystick-operated mount for precise camera positioning.
- 8 Automated Smart Blinds: Create a motorized system to open and close window blinds via a smartphone or schedule.

Sound & Music Innovation

- 9 Custom MIDI Music Controller: Build a playable keyboard interface for digital music production.
- 10 Ultrasonic Theremin: Construct a touchless musical instrument that changes pitch based on hand proximity.

Home Automation & Practicality

- 11 Smart Plant Watering System: Develop an automated system that monitors soil moisture and waters plants as needed.
- 12 WiFi Mailbox Notifier: Build a sensor-based system that sends a phone notification when mail is delivered.
- 13 Motion-Activated Nightlight: Create an energy-efficient light that only activates when someone enters a dark room.

Data Logging & IoT

- 14 Household Power Consumption Monitor: Design a tool to track and log the energy usage of home appliances.

15 Cloud-Based Weather Station: Build a station that uploads temperature, pressure, and light data to the internet for remote tracking.

Interactive Games & Logic

16 LED Reaction Time Tester: Create a game that measures how fast a player can respond to a random light cue.

17 Arduino "Simon Says" Memory Game: Replicate the classic electronic game using LEDs and buttons to test memory sequences.

Security & Communication Systems

18 Keypad-Controlled Door Lock: Construct a secure entry system using a PIN code and a servo-locking mechanism.

19 Laser Tripwire Alarm System: Design a perimeter security system that triggers an alarm when an invisible laser beam is broken.

20 Morse Code Trainer & Translator: Build a device that converts button presses into Morse audio/visual signals and translates them into text.

CHEMISTRY

- Prepare the assigned model.
- Solve all NCERT questions of ch-4
- Solve the given assignment.

Question 1: Which of the following molecules has the highest lattice energy: NaF, NaCl, NaBr, or NaI?

:Question 2: Draw the Lewis dot structures for Carbonate ion and ozone molecule.

Question 3: Predict the geometry and bond angle of SF₄ and ClF₃.

Question 4: Identify the hybridisation of the central atom in CH₄, C₂H₄, and C₂H₂.

Question 5: Carbon dioxide CO₂ and water H₂O both contain polar bonds, but only water has a net dipole moment. Explain why.

Question 6 . Why is H₂O bent while CO₂ is linear?

Question 7. Differentiate between a sigma bond and a pi bond.

Question 8. Discuss the shape of the following molecules using the VSEPR model:

BeCl₂, BCl₃, SiCl₄, AsF₅, H₂S, PH₃

BIOLOGY

Section-A Assignment 1

1. 'Ricinus' is monoecious while 'Carica' papaya is dioecious. what do the given term meant for?
2. Mango and coconut are drupe type of fruits. In mango fleshy Misocarp is edible. What is the edible part of coconut? What does milk of tender coconut represent? Explain.
3. Name the regions of angiospermic root tip and describe any one of them?
- 4.(a) Reticulate venation is found in Dicot leaves while in monocot leaves venation is of parallel type. Mention one exception of this generalization.
(b) Canna flower is asymmetric flower.Explain with reason.
5. What kinds of roots are found in angiosperms?
6. The fruit is a mature or ripened ovary ,developed after fertilization. Classify the fruits on the basis of fertilization of the flowers.
- 7.The arrangement of ovules within the ovary is known as placentation. What does the term Placenta refer to? Name and draw various types of placentation in the flower as seen in T.S or V.S.
8. (a)What cell curl the leaves in plants during water stress.
(b) If a tree is debarked, what part of the plant is being removed?
9. How do open vascular bundles differ from closed vascular bundles?
- 10.Write the differences in the anatomy of Dicot stem and monocot stem.
- 11.What are the three tissue system classified in flowering plant?Name the tissue under every system.
- 12.Write the differences between stomata and lentils.
13. Give an account of digestive system, male reproductive system of frog.
- 14.Mention different types of ventricles found in brain of frog. 15.What is open circulatory system?
- 16.(a) State one function of mesosome.

- (b) Who first saw and describe a live cell?
- 17.(a) Why lysosome is called suicide bags?
- (b) Name the organelle known as powerhouse of the cell .
18. Differentiate between the following:
- (i) Cytoplasm and protoplasm (ii) Microtubule and microfilament
- 19.(a) Who gave the statement “Omnis cellula-e cellula”?
- (b) Who proposed the “ fluid mosaic model of cell membrane”?
- 20.(a) What does ‘S’ refer to in a 70s and 80s ribosomes?
- (b) What is the function of a polysome?
21. Where are chromosomes located? State the significance of nuclear pore.
22. What will happen if a cell lacks cell membrane?
23. Draw a well labelled diagram of chloroplast.
24. List the features of a prokaryotic cell.
25. Describe the structure and function of Endoplasmic reticulum.

Section-B

2. Revise all the work done in your notebook.
3. Make a project file on the following topic according to your roll no.

Sr. No.	Topic	Roll no.
1	Plant growth and development	1 to 7
2	Locomotion and movement	8 to 15
3	Neural control and coordination	16 to 22

4. Prepare a working model on the assigned topics according to Your roll no.

1. Hydroponic farming (Roll no. 1, 7, 13, 19)
2. Animal kingdom (Roll no. 2, 8, 14, 20)

3 Leaf anatomy (Roll no. 3,9,15,21)

4.Meiosis cell division(Roll no. 4,10,16,22)

5.AI smart dustbin for Biomedical Waste segregation(Roll no. 5,11,17)

6.Human heart rate monitoring system(Roll no. 6,12,18)

MUSIC

1- Raag study

किन्हीं दो रागों का चयन करें और उनके बारे में लिखें।

(राग भैरव ,राग मालकोश ,राग बागेश्री)

- थाट
- वादी , संवादी
- जाति
- आरोह ,अवरोह ,पकड़
- विशेषताएं

2. भारतीय संगीत के इतिहास के विषय में 500 शब्दों में एक लिखें जिसमें इन विषयों पर प्रकाश डाला गया हो।

*हिंदुस्तानी संगीत पद्धति

*प्रमुख ग्रंथ संगीत रत्नाकर संगीत पारिजात

*भारतीय संगीत की घराना परंपरा

3. Project report

कार्य

किसी एक प्रसिद्ध हिंदुस्तानी शास्त्री गायक के बारे में लिखें।

- पंडित भीमसेन जोशी
- किशोरी अमोलकर
- डॉ गंगूबाई हंगल
- पंडित जसराज
- उस्ताद आमिर खान

उनकी जीवनी ,संगीत में यात्रा, उनकी उपलब्धियां ,उनके गायन की प्रमुख विशेषताएं, चित्रों सहित रंगीन A4 सीट पर इसका लेखन करें।

4.Taal study

इन निम्न तालों का लेखन A3 सीट पर करें,

जिसमें उनकी मात्रा, विभाग ,ताली खाली के विषय में दुगुन, त्रिगुण ,चौगुन सहित दर्शाया गया हो।

(झप ताल ,धमार ताल , रूपक ताल)

BANKING

Make a project file on these topics

Topics _ Special types of customers ,

Retail and wholesale Banking

Nomination

K y c requirement

Types of deposit accounts

Difference between cash book, Pass Book

Money laundering ,stages in money Laundering, objectives of prevention of Money Laundering Learn ch 1,2

Physical education

Practical file work

400 m Track with measurement BM I Test

50 mt speed Test, 600 mt Run, plate Tapping test One game of choice
yoga asana procedure for Asanas,benefits, And contraincdication for any
6 asana for each life style disease

PROJECT WORK

1. Mini Gym working Model
2. Sports tournament Mangement Model
3. BMI Calculator Model
4. Olympics Games theme Model
5. Sports and technology Model

ARTIFICIAL INTELLIGENCE

- Do you think AI should replace human jobs? Why or why not?
- How can we ensure AI is used responsibly? • What should be the limits of AI in daily life? 1. Explore any one beginner-friendly AI tool or platform (example list below):
 - Teachable Machine (by Google)
 - Quick, Draw! • ChatGPT (text-based AI)
 - Talk to Books • Canva's AI tools (Magic Write)

2. Choose any one real-world application of Artificial Intelligence from the following:

- AI in Healthcare
- AI in Agriculture
- AI in Education
- AI in Transport
- AI in Smart Homes Instructions:

- Prepare a 2-3 page report including:

What problem does AI solve in this field?

How does it work? o Real-life examples (minimum 2)

Benefits and challenges of using AI

- Add pictures or infographics to support your explanation. • Handwritten or digital submission allowed