S.N.	Subject	
1.	ENGLISH	**[1]Exploring and expressing different concepts –** Explore the following concepts and write a brief note explaining each of them in your words (30-50 words for each). Do it in your English Notebook. Socialism; Capitalism; Romanticism; Feminism; Racism; Nationalism; Communalism; Democracy; Colonialism; Chauvinism; Humanism; Multiculturalism; Satire; Irony; Symbolism; Metaphor; Simile; Alliteration; Personification, onomatopoeia. **[2] Project Work** – Select a topic from the literature syllabus or general affairs and burning topics for your Project Work. **Suggestions -** The following topics can be taken- (a) Climate Change – Vistas – Lesson-Journey to the End of the Earth by Tishani Doshi (b) Racial Discrimination – Vistas – Lesson-Memories of Childhood by Zitkala-Sa and Bama (c) Child Labour – Flamingo – Lesson- Lost Spring by Anees Jung (d) Appearances are Deceptive – Lesson-On the Face of It by Susan Hill (e) Adolescent Fantasizing – Lesson-Going Places by A.R. Barton (f) Childhood Phobia-Lesson-Deep Water by William Douglas (g) Escapism – Lesson-The Third Level by Jack Finney (h) Linguistic Chauvinism – Lesson-The Last Lesson by Alphonse Daudet (i) Economic Disparity – Poetry-A Roadside Stand by Robert Frost (j) Silence and Introspection-Poetry - Keeping Quiet by Pablo Neruda **Format of the Project Work** - (1)- Cover page - with Title of project, name of the School /name, class/section of the student (2)-Acknowledgement. (3) - Certificate of completion under the guidance of the teacher. (4) -Statement of purpose/objectives/goals (5) – Action Plan (6) – Material evidence (materials such as questionnaires for interview, written assignments, essays, survey reports, and other material evidence of learning progress and academic accomplishment). (7)-Students' input on the topic, their research and interpretation/Essay/Script/Reportin 800-1000 words using only right side of the paper (8) Diagrams/ Graphs/ Tables, etc. as applicable on left side of the paper. (9) -Students' reflections (learning experience) in 75-100 words. If possible, photographs that capture the positive learning experience of the student. (10)-List of resources/bibliography **The following points will be considered while assessing the project portfolios:** ● Quality of content of the project ● Accuracy of information ● Adherence to the specified timeline ● Content in respect of (spellings, grammar, punctuation) ● Clarity of thoughts and ideas ● Creativity

		● Knowledge and experience gained
2.	**Hindi**	1. कवि तुलसीदास जी पर आधारित एक डाक्यूमेंट्री वीडियो बनाकर मेल कीजिए। 2. समाचार वाचन शैली पर आधारित किसी समाचार का वीडियो बनाकर मेल कीजिए। 3. महदेवी वर्मा जी का जीवन परिचय, कार्यशैली, रचनाएँ एवं उनके संघर्ष का वर्णन कीजिए। (लगभग दस पेज में)
3.	**IP**	**Topic :** Cyber Security and Cryptography ➢ What is Cyber Security? ➢ What is Cryptography? ➢ What is the role of Cyber Security? ➢ Write some software names for Cyber Security? Search more about Cyber Security with the help of internet, newspaper and computer magazines. Make a PowerPoint presentation on the topic – Advantages of Cyber Security and Cryptography. Set a beautiful background. Apply nice formatting and animation effects on it.
4.	**CS**	1. WAP to input any two tuples and swap their values. 2. WAP to store students' details like admission number, roll number, name and percentage in a dictionary and display information on the basis of admission number. 3. Write a program with a user-defined function with string as a parameter which replaces all vowels in the string with '*'. 4. Write a python program to pass list to a function and double the odd values and half even values of a list and display list element after changing. 5. Write a python program to find the largest/smallest number in a list/tuple. 6. Write a Python program to pass a string to a function and count how many vowels present in the string. 7. Create a module lengthconversion.py that stores functions for various length conversions e.g Miletokm() convert miles to kilometer Kmtomile() convert kilometer to miles Feettoinches() convert feet to inches Inchestofeet() convert inches to feet 8. Find & write the output of the following python code: A=10 def call(): global a A=15 B=20 print(A) Call() 9. Write a program for generation of Fibonacci Series.

		10. Write a function that receives an octal no. and prints the equivalent no. in other bases i.e, in decimal, binary & hexa equivalent. NOTE: Submit the project synopsis also & complete TYPE A & B questions of chapter 1, 2 & 3
5.	**Physics**	**(Electric charges and fields, Electric Potential and Capacitance, Current Electricity)**
		1.A 500 µC charge is at the centre of a square of side 10 cm. Find the work done in moving a charge of 10 µC between two diagonally opposite points on the square.
		2. What is the electrostatic potential due to an electric dipole at an equatorial point?
		3. What is the work done in moving a test charge q through a distance of 1 cm along the equatorial axis of an electric dipole?
		4. Define the term 'potential energy' of charge 'q' at a distance V in an external electric field.
		5. Draw equipotential surfaces due to a single point charge.
		6. Two point charges q_1 and q_2 are located at q and r_2, respectively in an external electric field E. Obtain the expression for the total work done in assembling this configuration.
		7. A dipole with its charge -q and +q located at the points $(0, - b,0)$ and $(0,+ 5,0)$ is present in a uniform electric field E. The equipotential surfaces of this field are planes parallel to the Y Z-plane. (i)What is the direction of the electric field E? (ii)How much torque would the dipole experience in this field?
		8. Use Gauss's law to derive the expression for the electric field between two uniformly charged parallel sheets with surface charge densities σ and $-\sigma$ respectively.
		9. Two charges of +10µC and +40µC respectively are placed 12 cm apart. Find the position of the point where the electric field is zero.
		10. Two conducting wires X and Y of same diameter across a battery. If the number density of electron in X is twice that in Y, find the ratio of drift velocity of electrons in the two wires.
		11 . If V $(=q/4\pi\varepsilon_0 r)$ is the potential at a distance r due to a point charge q, then determine the electric field due to a point charge q, at a distance r.
		12. A parallel plate capacitor with air between the plates has a capacitance of 8 pF . The separation between the plates is now reduced by half and the space between them is filled with a medium of dielectric constant 5. Calculate the value of capacitance of parallel plate capacitor in second case.
		13. Four charges each having charge 'q' are along x-axis at x=1 cm ,x=2 cm, x=4 cm, x=8 cm Find the electric field at x=0 due to these charges.
		14. There is an isolated parallel plate capacitor of capacitance C charged to a potential difference V.If the separation between the plates is doubled, how the following quantities will vary: (i) Capacitance (ii) Potential difference (iii) Charge on the capacitor (iv) Electric field inside the plates (v) Energy stored.
		15. What is electric potential? Give its SI unit. Find the expression for the electric potential at any point due to a point charge.
		16. The distance of the field point on the axis of a small electric dipole is doubled. By what

|		factor will the electric field due to the dipole change?
		17. What is the angle between the directions of electric field at any (i) axial point and (ii) equatorial point due to an electric dipole?
		18. A charged particle q is shot towards another charged particle Q which is fixed, with a speed v. It approaches Q up to a closest distance r and then returns. If q were given a speed 2v, then find the closest distance of approach.
6	**Chemistry**	**Q-1.** The half life period for radio active decay of ^{14}C is 5730 years. An archaeological artifact contained wood had only 80% of ^{14}C found in a living tree. Estimate the age of the sample. (log 1.25 = 0.0969) Q-2. The rate constant for a first order reaction becomes six times when the temperature is raised from 350 to 400 K. Calculate the activation energy for the reaction. ($R=8.314$ JK^{-1}mol^{-1} , log 6 =0.7782) **Q-3.** 45g of ethylene glycol($C_2H_6O_2$) is mixed with 600 g of water. Calculate (i) the freezing point depression (ii) the freezing point of the solution (K_f for water =1.86 K kg mol^{-1}) **Q-4.** Density of a 2.05M solution of acetic acid in water is 1.20g/mL. Calculate the strength of the solution in terms of molality. **Q-5.** What is the mole fraction of the solute in 2.5 m aqueous solution? **Q-6.** For a first order reaction, calculate the ratio between time taken to complete three-fourth of the reaction and the time taken to complete half of the reaction. **Q-7.** The rate law for reaction of A , B and C has been found to be : rate = k $[A][B][C]^2$ .How would the rate of reaction change when : **(i)** concentration of C is doubled **(ii)** concentration of each of A , B and C are tripled. **Q-8**. A first order reaction takes 20 minutes for 25% decomposition. Calculate the time when 75% of the reaction will be completed. (log 2=0.3010 ,log 3= 0.4771 ,log 4=0.6021) **Q-9**. The following data were obtained during the first order thermal decomposition of $N_2O_5(g)$ at constant volume, $2 N_2O_5(g) ----→ 2 N_2O_4(g) + O_2(g)$
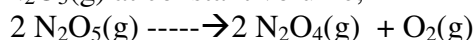
S.No.	Time(s)	Total pressure(atm)
1	0	0.5
2	100	0.512

Calculate rate constant.(log1.0504=0.0214)

Q-10. The following data were obtained during the first order thermal decomposition of SO_2Cl_2 at constant volume:

$SO_2Cl_2 ------→ SO_2 (g) + Cl_2 (g)$

Experiment	Time	Total Pressure/atm
1	0	0.4
2	100	0.7

Calculate rate constant.(Given, log 4=0.6021 , log 2=0.3010)

Q-11. The rate constant for a first order reaction is 60 s^{-1}. How much time will it take to reduce
the concentration of the reactant to $1/16^{th}$ value? (log16=1.204)

Q-12. (i)For a first order reaction, calculate the ratio between time taken to complete three fourth of the reaction and time taken to complete half of the reaction.
(ii) For the reaction, $C_{12}H_{22}O_{11} + H_2O -----→ C_6H_{12}O_6 + C_6H_{12}O_6$
Write:
(a) Rate reaction expression
(b) Rate law equation
(c) molecularity
(d) order of reaction

Q-13. What is meant by negative deviation from Rault's law? Draw a digram to illustrate the relationship between vapour pressure and mole fraction of components in a solution to represent negative deviation.

Q-14. State Henry's law and mentions its two important applications

Q-15. (i) What is the difference between molarity and molality of a solution ?

(ii) A solution of glucose ($C_6H_{12}O_6$) in water is labeled as 10% by weight. What would be the

molality of the solution.

Q-16. What mass of ethylene glycol(molar mass 62 g mol^{-1}) must be added to 5.50 kg of water to

lower the freezing point of water from $0\ ^0C$ to -10^0C ?(K_f for water =1.86 K kg mol^{-1})

Q-17. What is meant by negative deviation from Rault's law? Draw a digram to illustrate the relationship between vapour pressure and mole fraction of components in a solution to represent negative deviation.

Q-18. A first order reaction is 25% completed in 40 minutes. In what time will the reaction be

80% completed. (log 2=0.3010 , log 3= 0.4771 , log 4=0.6020,log5 = 0.6991 , log 8=0.9030)

Q-19. The rate of a chemical reaction doubles for an increase of 10K in absolute temperature

from 298K . Calculate E_a .

Q-20. Calculate the mass of ascorbic acid($C_6H_8O_6$) to be dissolved in 75g of acetic acid to lower

its melting point by 1.5 ^0C. (K_f for acetic acid=3.9 K kg mol^{-1})

7	**Mathematics**	1. **Solve atleast 5 questions daily in your practice note-book from the 3 chapters covered during the month of April-May. Solve all the problems of NCERT including examples and then problems from R. S. Aggarwal or any other reference book.** 2. **Write atleast 15-15 MCQ's from all 3 chapters in your practice note book and then solve them.** 3. **Solve 3-3 Case Based questions from all the 3 chapters in your practice note book.**
8	**Biology**	1. Why female reproductive system is complex in compare to male reproductive system? 2. Why Scrotum provide a low temperature to testis? 3. Why presence or absence of hymen is not a reliable indicator of virginity or sexual experience? 4. What are the major differences between spermatogenesis and oogenesis? 5. What is the advantage is to be found in secondary oocyte which is large in compare to polar body? 6. Why all copulation does not lead to fertilization and pregnancy? 7. Define placenta and how it is formed? 8. What is foetal ejection reflex? 9. Define parturition. Which mechanism induces parturition? 10. What is lactation? Which hormone is called milk ejecting hormone?
9	ACCOUNTANCY	**PART-A** **FUNDAMENTAL OF PARTNERSHIP, Change in Profit sharing ratio AND ADMISSION OF A PARTNER** 1. Do MCQ, ASSERTION REASONING QUESTIONS, 2. Do **PRACTICAL PROBLEMS** OF all the three chapters to be done in practice register. 3. Write down important points related to theory from each chapter. 4. Write down formulas used in chapters. **PART-B** Finish the accounting project for the 11th-grade class following the CBSE guidelines.

10	**Business Studies**	Prepare the project work on the topic allotted-

❖ Project A: MARKETING MANAGEMENT

❖ Project B: BUSINESS ENVIRONMENT

❖ Project C: STOCK EXCHANGE

❖ Project D: PRINCIPLES OF MANAGEMENT

Guidelines to be followed: -

Project A: MARKETING MANAGEMENT

On the basis of the work done by the students the project report should include the following:

1. Why have they selected this product/service?

2. Find out '5' competitive brands that exist in the market.

3. What permission and licenses would be required to make the product?

4. What are your competitors Unique Selling Proposition [U.S.P.]?

5. Does your product have any range give details?

6. What is the name of your product?

7. Enlist its features.

8. Draw the 'Label' of your product.

9. Draw a logo for your product.

10. Draft a tag line.

11. What is the selling price of your competitor's product?

(i) Selling price to consumer   (ii) Selling price to retailer   (iii) Selling price to wholesaler

What is the profit margin in percentage to the a. Manufacturer. b. Wholesaler. c. Retailer.

12. How will your product be packed?

13. Which channel of distribution are you going to use? Give reasons for selection?

14. Decisions related to warehousing, state reasons.

15. What is going to be your selling price? (i) To consumer (ii) To retailer (iii) To wholesaler

16. List 5 ways of promoting your product.

17. Any schemes for   (i) The wholesaler   (ii) The retailer   (iii) The consumer

18. What is going to be your 'U.S.P?

19. What means of transport you will use and why?

20. Draft a social message for your label.

21. What cost effective techniques will you follow for your product.

22. What cost effective techniques will you follow for your promotion plan. At this stage the students will realize the importance of the concept of marketing mix and the necessary decision regarding the four P's of marketing.

 A. PRODUCT   B. PLACE   C. PRICE   D. PROMOTION

Project B: BUSINESS ENVIRONMENT

1. Changes witnessed over the last few years on mode of packaging and its economic impact.

It may include the following changes:

a) The changes in transportation of fruits and vegetables such as cardboard crates being used in place of wooden crates, etc. Reasons for the above changes.

b) Milk being supplied in glass bottles, later in plastic bags and now in tetra pack and through vending machines.

c) Plastic furniture [doors and stools] gaining preference over wooden furniture.

d) The origin of cardboard and the various stages of changes and growth.

e) Brown paper bags packing to recycled paper bags to plastic bags and cloth bags.

f) Re use of packaging [bottles, jars and tins] to attract customers for their products.

g) The concept of pyramid packaging for milk.

h) Cost being borne by the consumer/manufacturer.

i) Packaging used as means of advertisements.

2. The reasons behind changes in the following: Coca – Cola and Fanta in the seventies to Thums up and Campa Cola in the eighties to Pepsi and Coke in nineties. The teacher may guide the students to the times when India sold Coca Cola and Fanta were being manufactured in India by the foreign companies. The students may be asked to enquire about -

a. Reasons of stopping the manufacturing of the above-mentioned drinks in India THEN.

b. The introduction of Thums up and Campa cola range.

c. Reentry of Coke and introduction of Pepsi in the Indian market.

d. Factors responsible for the change.

e. Other linkages with the above.

f. Leading brands and the company having the highest market share.

g. Different local brands venturing in the Indian market.

h. The rating of the above brands in the market.

i. The survival and reasons of failure in competition with the international brands.

3. Changing role of the women in the past 25 years relating to joint families, nuclear families, women as a bread earner of the family, changes in the requirement trend of mixers, washing machines, micro wave and standard of living.

4. The changes in the pattern of import and export of different Products.

5. The trend in the changing interest rates and their effect on savings.

6. A study on child labour laws, its implementation and consequences.

7. The state of 'anti plastic campaign,' the law, its effects and implementation.

8. The laws of mining /setting up of industries, rules and regulations, licences required for running that business.

9. Social factors affecting acceptance and rejection of an identified product. (Dish washer, Atta maker, etc)

10. What has the effect been on the types of goods and services? The students can take examples like:

a. Washing machines, micro waves, mixers and grinder.

b. Need for crèche, day care center for young and old.

c. Ready to eat food, eating food outside, and tiffin centers.

11. Change in the man-machine ratio with technological advances resulting in change of cost structure.

12. Effect of changes in technological environment on the behavior of employee.

Project C :- STOCK EXCHANGE

Project D: PRINCIPLES OF MANAGEMENT :

The students are required to visit any one of the following:

1. A departmental store.

2. An Industrial unit.

3. A fast food outlet.

4. Any other organisation approved by the teacher. They are required to observe the application of the general Principles of management advocated by Fayol.

OR

They may enquire into the application of scientific management techniques by F.W. Taylor in the unit visited. Scientific techniques of management.

(B.) PRESENTATION AND SUBMISSION OF PROJECT REPORT OF PROJECT A ,B AND C

The following essentials are required to be fulfilled for its preparation and submission.

1. The total length of the project will be of 25 to 30 pages.

2. The project should be handwritten.

3. The project should be presented in a neat folder.

4. The project report should be developed in the following sequence)

- The cover page should include the title of the Project, student information, school and year.
- List of contents. d) Acknowledgements and preface (acknowledging the institution, the places visited and the persons who have helped).
- Introduction.
- Topic with suitable heading.
- Planning and activities done during the project, if any.
- Observations and findings of the visit.
- Conclusions (summarised suggestions or findings, future scope of study).
- Photographs (if any).
- Appendix.
- Teacher's observation.
- Signature of the teacher.

Instructions:

		1. The work has to be done on A4 size interleaf sheets.
		2. It should be written in neat handwriting.
		3. The file should not be spiraled.
		4. The project should be hand written and no print-outs to be used for content writing.
11	**Economies**	**Part-A** Solve Question No. 40 to 88 Chapter 'National Income' **Part-B** **Prepare a Project as per allotted topic** **i**. Cashless Economy (Roll No. 1 to 6) **ii.** G-20 inclusive and active oriented(Roll No. 7 to 12) **iii**. E-rupee(Roll No. 13 to18) **iv.** Sustainable and economic development(Roll No. 19 to 24) **v.** Environment crisis and its impact on economic conditions of country(Roll No. 25 to 30) **vi.** Role of RBI in credit control(Roll No. 31 to 36) **Guidelines for project work:** 1. The work has to be done on A4 size interleaf sheets. 2. It should be written in neat handwriting. 3. The file should not be spiraled. 4. The project should be hand written and no print-outs to be used for content writing 5. The expectations of the project work are that: • learners will complete only ONE project in each academic session • project should be of 3,500-4,000 words (excluding diagrams & graphs), preferably hand-written • it will be an independent, self-directed piece of study Scope of the project: Learners may work upon the following lines as a suggested flow chart: Choose a title/topic Collection of the research material/data Organization of material/data Present material/data Analysing the material/data for conclusion Draw the relevant conclusion Presentation of the Project Work. Expected Checklist: • Introduction of topic/title • Identifying the causes, consequences and/or remedies • Various stakeholders and effect on each of them • Advantages and disadvantages of situations or issues identified • Short-term and long-term implications of economic strategies suggested in the course of research • Validity, reliability, appropriateness and relevance of data used for research work and for presentation in the project file • Presentation and writing that is succinct and coherent in project file • Citation of the materials referred to, in the file in footnotes, resources section, bibliography etc.
12.	**Geography**	(a) Make a practical file including the following chapters from the practical book. Ch-1- Data- its source and compilation Ch-2- Data Processing

		Ch-3- Graphical
		(b) Prepare a folder of mapwork as per CBSE syllabus 2024-25. Representation of Data Map Work- In the Political Map of India, mark the following: (Book- India: People and Economy) In the Political Map of India, locate and label the following: (Use separate maps for marking the following) [5 separate maps] 1. Major Sea Ports: Kandla, Mumbai, Marmagao, Kochi, Mangalore, Tuticorin, Chennai, Vishakhapatnam, Paradwip,Haldia 2. International Air ports: Ahmedabad, Mumbai, Bengaluru, Chennai, Kolkata, Guwahati, Delhi, Amritsar, Thiruvananthapuram & Hyderabad 3. Iron and Steel Plants: Bhadravati, Bhilai, Bokaro, Durgapur, Rourkela and Jamshedpur 4. Cotton Textile: Surat, Varanasi, Murshidabad, Solapur and Coimbatore 5. Software Technology Parks: Gandhinagar, Srinagar, Mohali, Noida, Indore,
13.	**Physical Education**	1. What is Intramural? Discuss the Objectives of Intramurals. 2. State the merits and demerits of knock out tournaments. 3. Briefly explain the merits and demerits of Round Robin Tournament. 4. Draw the Fixture of 16 & 17 teams by knock out method. 5. Draw the Fixture of 9 & 11 teams by knock out method where 2 teams are seeded. 6. Draw the Fixture of 10 & 13 teams by League Cyclic method and prepare the point table where British and U S Method is mentioned. 7. Draw the Fixture of 12 & 13 teams by League Tabular Method. 8. Your school has got a chance to organize a CBSE cluster Tournament of Basketball. How will you help your school in Organizing Tournament?