



Rukmani Birla Modern High School

Session 2026-27

SUMMER ASSIGNMENT

Dear Students,

*Summer holidays bring thoughtful days,
Where learning blooms in gentle ways.
Do your assignments, spark your mind,
Read books too—new worlds you'll find.*

*Explore near and wide with purpose true,
Spend time with family, friends by you.
Help birds and strays with caring hands,
Kindness nurtures across the lands.*

*Return rejuvenated, relaxed, refreshed, revived,
recharged,*

Hearts aglow, with wisdom enlarged.

*Summer's lessons, soft and slow,
Will help your knowledge to grow.*

Complete your class-specific assignments mindfully during this enriching break.

Tasks follow on the next pages.

Submit on the first day back.

Happy Holidays



RUKMANI BIRLA MODERN HIGH SCHOOL
SESSION 2026-27
SUMMER ASSIGNMENT
CLASS XI

Subject	Assignment
English	<p>Project: Unveiling the Mysteries of Ancient Egypt Prepare a comprehensive and visually engaging project on Ancient Egypt, one of the world's most fascinating civilizations. Your work should reflect a deep understanding of its history, rulers, beliefs, and burial practices, with special emphasis on the famous boy king Tutankhamun.</p> <p>Project Guidelines:</p> <ol style="list-style-type: none">1. Introduction to Ancient Egypt<ul style="list-style-type: none">* Locate Ancient Egypt on the world map (along the Nile River).* Briefly describe its civilization, achievements, and way of life.* Explain why it is considered one of the greatest ancient civilizations.2. The Line of Pharaohs<ul style="list-style-type: none">* Explain who Pharaohs were and their role in Egyptian society.* Trace a brief timeline of important rulers, such as:<ul style="list-style-type: none">* Narmer* Khufu* Hatshepsut* Akhenaten* Ramses II* Highlight their major contributions and achievements.3. Mummification Process<ul style="list-style-type: none">* Describe the step-by-step process of mummification.* Explain why Egyptians preserved the dead.* Mention the role of organs, canopic jars, and rituals involved.4. Burial Practices of Kings<ul style="list-style-type: none">* Explain how Pharaohs were buried in pyramids and tombs.* Describe the significance of:<ul style="list-style-type: none">* Tomb architecture* Burial chambers* Treasures, artifacts, and inscriptions* Discuss beliefs about the afterlife and the journey of the soul.5. Focus Study: The Boy King Tutankhamun<ul style="list-style-type: none">* Provide a detailed account of Tutankhamun:<ul style="list-style-type: none">* His early life and reign* His tomb discovery by Howard Carter* Treasures found inside the tomb* Discuss the famous “curse of the mummy” and separate myth from fact.6. Facts, Myths, and Discoveries<ul style="list-style-type: none">* Include interesting historical facts about Ancient Egypt.* Explore myths and legends (e.g., curses, hidden chambers).* Compare scientific findings with popular beliefs.7. Visual Presentation

	<p>* Add drawings, maps, or printed images (pyramids, mummies, artifacts). * Use headings, borders, and creative layouts to enhance presentation.</p> <p>8. Conclusion</p> <p>* Reflect on what makes Ancient Egypt unique and mysterious. * Share what fascinated you the most during your research.</p> <p>Submission Guidelines: * Present your work on A4 size sheets in a neat, well-organized, and creative format in your own handwriting. * Use clear headings, labelled diagrams, and proper sequencing. * Ensure originality and thoughtful presentation.</p> <p>This project is an opportunity to step back in time and explore a civilization filled with powerful rulers, scientific practices, and enduring mysteries. Let your curiosity guide your journey into the world of pyramids and pharaohs!</p>
Physics	<p>Investigatory Project: As per CBSE syllabus, the students have to prepare an investigatory project. The project must be based on some concept of physics of standard class XI. The students will have to submit a report on the project comprising scientific investigations involving laboratory testing and collecting information from other sources. Guidelines to be followed:</p> <p>(a) The students will get the topic of investigation from the concerned subject teacher. (b) Brief report (Investigation file) Mention following details:</p> <ul style="list-style-type: none"> · Cover Page · Index · Certificate · Acknowledgement · Content: <ol style="list-style-type: none"> 1. Aim (name of investigatory project) 2. Apparatus and material used 3. Theory (concept, diagram etc.) 4. Procedure 5. Experiments and Observations 6. Result/Conclusion 7. Application of project in daily life 8. Bibliography <p>Suggested Investigatory projects:</p> <p>To investigate whether the energy of a simple pendulum is conserved. To determine the radius of gyration about the centre of mass of a metre scale used as a bar pendulum. To investigate changes in the velocity of a body under the action of a constant force and to determine its acceleration.</p> <ol style="list-style-type: none"> 1. To compare the effectiveness of different materials as insulators of heat. 2. To compare the effectiveness of different materials as absorbers of sound. 3. To compare the Young's modulus of elasticity of different specimen of rubber and compare them by drawing their elastic hysteresis curve. 4. To study the collision of two balls in two-dimensions. 5. To study of the spring constant of a helical spring from its load-extension graph.

	<p>6. To study the effect of nature of surface on emission and absorption of radiation .</p> <p>7. To study conservation of energy with a 0.2 pendulum.</p> <p>8. To investigate the effect of angle of launch on range of projectile.</p> <p>9. To study conservation of linear momentum.</p> <p>10. To study conservation of angular momentum.</p> <p>11. To investigate the Bernoulli's theorem with simple experiments.</p> <p>12. To study phenomenon of resonance using an open pipe.</p> <p>Note. Submit the report of the project with spiral binding support.</p>
Chemistry	<p>Investigatory Project: As per C.B.S.E. Guidelines: Scientific investigations involving research and collecting information from other sources.</p> <p>Project must cover the following:</p> <ul style="list-style-type: none"> • Cover Page • Index • Certificate • Acknowledgement • Objective of Project • Content • Result • Bibliography <p>Few suggested projects:</p> <ol style="list-style-type: none"> 1. Investigation of foaming capacity of different washing soaps and the effect of addition of sodium carbonate on it. 2. To Study methods of purification of water. 3. To study the acidity of different samples of tea leaves 4. Effect of acids and bases on the tensile strength of fibers. 5. Checking the bacterial contamination in drinking water by testing sulphide ions 6. Determination of the rate of evaporation of different liquids. 7. Study of acidity of various fruits and vegetable juices. 8. Testing the hardness, presence of Iron, Fluoride, Chloride, etc., depending upon the regional variation in drinking water and study of causes of presence of these ions above permissible limit (if any). 9. Preparation of crude paints. 10. Study of the effect of metal coupling on the rusting of Iron.
Mathematics	<p>Activity 1 To find the number of subsets of a given set and verify that if a set has n number of elements, then the total number of subsets is 2^n .</p> <p>Activity 2 To verify that for two sets A and B, $n(A \times B) = p \times q$ and the total number of relations from A to B is 2^{pq}, where $n(A) = p$ and $n(B) = q$.</p> <p>Activity 3 To represent set theoretic operations using venn diagrams.</p> <p>Activity 4 To verify distributive law for the three given non-empty sets A, B and C that is $A \cup (B \cap C) = (A \cup B) \cap (A \cup C)$.</p> <p>Activity 5 To distinguish between a Relation and a Function.</p> <p>Activity 6 To find the values of sine and cosine functions in second, third and fourth quadrants using their given values in the first quadrant.</p>

<p>Biology</p>	<p>Investigatory Project: As per CBSE guidelines, the students have to prepare an investigatory project on a topic. They have to submit the project file comprising the scientific investigations done by him//her and the information collected from appropriate sources. The work should be done only on A4 size sheets.</p> <p>Presentation of the project</p> <ul style="list-style-type: none"> • Index • Certificate • Acknowledgement • Objective of Project • Introduction • Content • Discussion and Conclusion • Bibliography <p>Few suggested topics:</p> <ul style="list-style-type: none"> • Sporulation in Fungi • Effect of Environmental condition on the rate of transpiration • Economically important insects • Lung capacity and volume in human. • Anthropogenic action deteriorate environment. • Effect of environmental factors on growth of plants • Deficiency diseases in plants • Vital capacity in man • Biomimicry • Hydroponics based vertical farming • Malnutrition in India • Effect of oil spills in oceans • Angina pectoris • Effect of the different wavelengths of light on the growth of plants • Pollinating agents • Comparative study of flowers of different families • Human skeleton and joints • Sliding filament theory of muscle movement. • ABO Blood grouping
<p>Geography</p>	<p>Complete first two chapters in your practical file. Chapter 1- Introduction to Maps Chapter 2 – Map Scale</p> <ul style="list-style-type: none"> • Make notes of the chapters taught till date. • Read the newspaper on daily basis. • Collect information of any three geographical events occurring on the globe. <p>Paste the information and write a gist on each in about 250-500 words</p>
<p>History</p>	<p>PROJECT WORK Guidelines for History Project Work One Project to be done throughout the session, as per the existing scheme. 1. Steps involved in the conduct of the project:</p>

	<p>Students may work upon the following lines :</p> <ul style="list-style-type: none"> • Choose a Title/Topic • Need of the Study, Objective of the Study • Hypothesis • Content -Timeline, Maps, Mind maps, Pictures, etc. • (Organization of Material/Data Present Material/Data) • Analyzing the Material/Data for Conclusion • Draw the Relevant Conclusion • Bibliography <p>2. Expected Checklist for the Project Work:</p> <ul style="list-style-type: none"> • Introduction of topic/title • Identifying the causes, events, 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 strategies suggested during 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. <p>FEW SUGGESTIVE TOPICS FOR PROJECTS - CLASS XI</p> <ul style="list-style-type: none"> • Facets of the Industrialization in sixteenth- eighteenth centuries. • Crusades: causes; rationale; events; outcomes; Holy Alliance • Ancient History in depth: Mesopotamia • Greek Philosophy and City States • Contributions of Roman Civilization • The spirit of Renaissance: Manifestation in art; Literature; Sculpture; Influence on <p>Trading Community; Social Fabric; Philosophy; Political Values; Rational Thinking; Existentialism</p> <ul style="list-style-type: none"> • Aspects of Development -South American States /Central American States • Different schools of thoughts- Realism: Humanism: Romanticism • Piecing together the past of Genghis Khan <p>10.Myriad Realms of Slavery in ancient, medieval, and modern world 11.History of Aborigines – America /Australia 12.Facets of Modernization – China /Japan/Korea</p> <p>Students to pick any one topic after a thorough discussion with the subject teacher. In the research project, students can go beyond the textbook and explore the world of knowledge. They can conceptualize under the embedded themes. Forms of rubrics are a significant aspect and to be discussed in the classroom itself for clear understanding of concept and for assessment</p>
Business Studies	<p><u>“Visit to a Mall”</u></p> <p>The students will visit to any mall in any city with their parents and make a project report or observation report with photograph individually (consisting 15 -20 pages) which must include the following:</p>

	<ol style="list-style-type: none"> 1. Number of floors, shops occupied and unoccupied. 2. Nature of shops, their ownership status 3. Nature of goods dealt in: local brands, international brands, 4. Service business shops- Spas, gym, saloons etc. 5. Rented spaces, owned spaces, 6. Different types of promotional schemes. 7. Most visited shops. 8. Special attractions of the Mall- Food court, Gaming zone or Cinema etc. 9. Innovative facilities. 10. Parking facilities. 11. Any other relevant information about the visit. <p>IMPORTANT INSTRUCTIONS: The project report will be developed in the following sequence-</p> <ul style="list-style-type: none"> • Cover page should contain – Title of the project, Student Information, School Name, Subject, Submitted To, Submitted by and Academic year. • Acknowledgement • Certificate • Index • Content • Bibliography <p>2. The Startup Spark – Young Entrepreneurs Challenge</p> <p>Students will work in groups, with 5 students in each group, to create an innovative startup business idea and present it through a PowerPoint Presentation (PPT).</p> <p>Objective: To enhance creativity, teamwork, entrepreneurial thinking, and presentation skills.</p> <p>PPT Must Include</p> <ol style="list-style-type: none"> 1. Business Name, Logo & Slogan 2. Introduction of the Business Idea 3. Problem Solved by the Business 4. Product/Service Details 5. Target Customers 6. Marketing & Promotion Strategy 7. Investment & Expected Profit 8. Future Growth Plan 9. Conclusion <p>Instructions</p> <ul style="list-style-type: none"> * PPT should contain *8–10 slides only*. * Use relevant pictures, charts, and graphs. * The presentation should be creative and well-organized. * All group members must participate in the presentation. * Students must bring the PPT in a *pen drive* on the presentation day. * Original and innovative ideas will be appreciated.
Sociology	<p>PROJECT WORK</p> <p>As per the CBSE guidelines each student has to prepare a research project. The project must involve actual first hand research done by the students in close consultation with the teacher. Students can take any topic of their choice emphasizing the importance/effects/role of society.</p>

	<p>PREPARATION AND SUBMISSION OF PROJECT REPORT</p> <p>Each report must fulfill the following requirements: The body of the Project Report will be of approximately 15-20 A4/A3 Pages excluding additional appendices, questionnaires etc. The project report will be written in the student's own hand; though they may include other illustrative material that is not hand - written 3. The project report will contain the following matter:</p> <p>a) Cover page showing project title, student's information, school and session b) List of contents c) Acknowledgements and preface Introduction Rationale Purpose - The reason for the choice of the subject and its social significance. Methodology Technique - Mention the methodology e.g. questionnaire, case study, ethnographic description The students may use any method which is appropriate for the topic selected. Detailed steps and procedures adopted must be given. Presentation of evidence - There must be a major section formally presenting the evidence gathered as a part of the project. This can be in the form of tables, extracts from interviews, reports on case studies or discussion of documentary data (newspapers, articles, magazines, diaries, photographs). However, there should be value addition by the student and it must not be a simple reproduction of the original material. Analysis of evidence & conclusions - Each project should summarize its conclusions in a separate section. This can be brief but should be clearly and carefully stated. If possible, some suggestions can be given for further enhancement in the areal subject studied. This section can also include a statement describing the limitations of the study. Bibliography/ Appendix or other supporting material - This should include the references to relevant books and other sources used for the study. The appendix will include questionnaires, list of interviews, documents or any other material used in the study.</p>
<p>Accountancy</p>	<p>Prepare a Comprehensive Project based on collection of various source documents like Pay-in-Slip, Cheque, Cash Memo, Invoice and bill, Receipt, Debit and Credit Note etc. from different business institutions and Design and paste accounting vouchers (cash and non-cash voucher) for various financial transactions shown in source documents.</p> <p>IMPORTANT INSTRUCTIONS: The project report will be developed in the following sequence-</p> <ul style="list-style-type: none"> • Cover Page • Certificate • Acknowledgement • Index • Performa of source documents and vouchers • Detailed information • Bibliography
<p>Political Science</p>	<p>PROJECT WORK</p> <p>Rationale Political Science as a field of study in senior secondary classes enable students to get an exposure to political activities and processes that they are exposed to in everyday life.</p>

The study of political science has emerged as a multifaceted discipline, involving a contemporary interdisciplinary approaches and empirical framework, emphasizing more on field work rather than theoretical perceptions. The connect between government and citizen ensures the emergence of an active and reflective citizens and vibrant democracy. CBSE has therefore incorporated project work in Political Science to enable students to extend their interest beyond textbooks and provide them with a platform to gather information, value the decisions made to shape the community and visualise future course of action to be taken to ensure healthy democracy.

Objectives of project work

To enable learners to: probe deeper, initiate action and reflect on knowledge and skills acquired during the course of class XI.

analyse and evaluate real world scenarios using social constructivism, a theory based on observation and scientific study

become independent and empowered to choose their topic and gather data from a variety of source, investigate varied viewpoints acquired and arrive at logical deductions.

enquire into, and reflect on, issues independently /in collaboration with others and identify the limitations

develop 21st century skills of communication, cooperation, coordination, critical thinking, creativity and collaboration to produce an extended and independent work.

Project Overview:

The Project work will be implemented for 20 Marks.

Out of 20 marks, 10 marks are to be allotted to viva voce and 10 marks for project work.

For class XI, the evaluation for 20 marks project work should be done by the internal examiner.

The project has to be done individually. The Project can be made on any of the topics given in the syllabus of a particular class or any contemporary issues.

The project work can be culminated in the form of films, albums, Presentation, Model, Field Survey, Mock Drills/Mock Event etc.

Students can use primary sources available in city archives, Primary sources can also include newspaper cuttings, photographs, film footage and recorded written/speeches.

Secondary sources may also be used after proper authentication.

Viva-Voce

At the end of the stipulated term, each learner will present the research work in the Project File to the examiner.

The questions should be asked from the Research Work/ Project File of the learner.

The Examiner should ensure that the study submitted by the learner is his/her original work. • In case of any doubt, authenticity should be checked and verified.

SUGGESTED TOPICS CLASS XI

1. Making of the Constitution.
 2. Elections in India.
 3. Working of the Indian Judiciary System.
 4. Social Justice: Are ethics followed in Indian Politics
 5. Human Rights Act and its gratification in India.
- Political impact on Indian Legislation.

<p>Economics</p>	<ul style="list-style-type: none"> • The students will complete only ONE project. • 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 <p>The students are required to carry out a survey on any one of the topics mentioned below and will also prepare a questionnaire; the responses will be collected from at least 50 respondents. Thereafter, organization of the data will be done. The data will be then, presented and analyzed to arrive at conclusions.</p> <p><u>Mode of presentation/submission of the Project:</u></p> <p>At the end of the stipulated term, each student will present the research work in the Project File to the examiner. The questions should be asked from the Research Work/ Project File of the learner. The project report must consist of the following:</p> <ul style="list-style-type: none"> • Introduction of topic/title. <ul style="list-style-type: none"> • Identifying the impact, consequences on consumer household during lock down. • 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. <p><u>Suggestive list of topics:</u></p> <table border="1" data-bbox="472 1203 1479 1486"> <tr> <td>*MGNREGA</td> <td>*Pradhan Mantri Awas Yojana</td> </tr> <tr> <td>*Pradhan Mantri Ujjwala Yojana</td> <td>*Pradhan Mantri Jan Dhan Yojana</td> </tr> <tr> <td>*Ayushman Bharat Yojana</td> <td>*Sukanya Samriddhi Yojana</td> </tr> <tr> <td>*Beti Bachao Beti Padhao Yojana</td> <td>*PM Gati Shakti Yojana</td> </tr> <tr> <td>*Bharat Mala Yojana</td> <td>* National Pension Scheme</td> </tr> <tr> <td>*Sarva Siksha Abhiyan</td> <td>*Mid-Day Meal Yojana</td> </tr> <tr> <td>*Pension Beema Yojana</td> <td>*Golden Quadrilateral Scheme.</td> </tr> </table>	*MGNREGA	*Pradhan Mantri Awas Yojana	*Pradhan Mantri Ujjwala Yojana	*Pradhan Mantri Jan Dhan Yojana	*Ayushman Bharat Yojana	*Sukanya Samriddhi Yojana	*Beti Bachao Beti Padhao Yojana	*PM Gati Shakti Yojana	*Bharat Mala Yojana	* National Pension Scheme	*Sarva Siksha Abhiyan	*Mid-Day Meal Yojana	*Pension Beema Yojana	*Golden Quadrilateral Scheme.
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<p>Applied Mathematics</p>	<p>Activity 1 To find the number of subsets of a given set and verify that if a set has n number of elements, then the total number of subsets is 2^n.</p> <p>Activity 2 To verify that for two sets A and B, $n(A \times B) = p \times q$ and the total number of relations from A to B is 2^{pq}, where $n(A) = p$ and $n(B) = q$.</p> <p>Activity 3 To represent set theoretic operations using venn diagrams.</p> <p>Activity 4 To verify distributive law for the three given non-empty sets A, B and C that is</p> $A \cup (B \cap C) = (A \cup B) \cap (A \cup C).$ <p>Activity 5</p> <p>(i) Define Common and General Logarithm and draw the graphs of both.</p> <p>(ii) Write at least five properties of logarithm.</p>														

	<p>(iii) Write the conversion formula from common to general Logarithm/ Relation between common and general Logarithm.</p> <p>Prepare a project from anyone of the following topics</p> <p>i) Fibonacci sequence: Its' history and presence in nature.</p> <p>ii) Investigating Graphs of functions for their properties.</p> <p>iii) Visit the census site of India http://www.censusindia.gov.in/Census_Data_2001/Census_Data_Online/Language/State ment3.html Depict the information given there in a pictorial form</p> <p>iv) Prepare a questionnaire to collect information about money spent by your friends in a month on activities like travelling, movies, recharging of the mobiles, etc. and draw interesting conclusions</p> <p>v) From the newspaper cut out examples of information depicted by graphs. Draw your own conclusions from the graph and compare it with the analysis given in the report.</p> <p>vi) Each day newspaper tells us about the maximum temperature, minimum temperature, and humidity. Collect the data for a period of 30 days and represent it graphically. Compare it with the data available for the same time period for the previous year.</p> <p>vii) Collect the data on weather, price, inflation, and pollution. Analyse the data and make meaningful inferences.</p> <p>viii) Collect data from newspapers on traffic, sports activities and market trends and use excel to study future trends.</p>
<p>Psychology</p>	<p>Objective: Apply psychological concepts and methods of enquiry to investigate a topic covered in the course.</p> <p>Project Options:</p> <ol style="list-style-type: none"> 1.Observation Study: Investigate human behavior in a natural setting (e.g., attention in a classroom). 2.Survey: Examine attitudes or opinions on a specific topic (e.g., motivation in students). 3.Interview: Explore personal experiences or perceptions (e.g., memory strategies). 4.Questionnaire: Investigate relationships between variables (e.g., motivation and academic performance). 5.Experiment: Design a simple experiment to test a cause-and-effect relationship (e.g., effect of music on concentration). <p>Topics:</p> <ol style="list-style-type: none"> 1. Human Development (e.g., cognitive development in children) 2. Learning (e.g., classical conditioning in everyday life) 3. Memory (e.g., strategies for improving memory) 4. Motivation (e.g., intrinsic vs. extrinsic motivation) 5. Perception (e.g., optical illusions) 6. Attention (e.g., focused attention vs. divided attention) 7. Thinking (e.g., problem-solving strategies) <p>Project Requirements:</p> <ol style="list-style-type: none"> 1.Clear research question or hypothesis 2.Appropriate methodology (observation, survey, interview, questionnaire, or experiment)

	<p>3.Data collection and analysis 4.Discussion of findings and implications 5. Conclusion and recommendations Submission Guidelines: 5.Word limit: 1500-2000 words 6.Format: Double-spaced, 12-point font Include introduction, methodology, results, discussion, and conclusion</p>
<p>Computer Science</p>	<p>Instructions Use these instructions while writing Python programs in your practical copy:</p> <ol style="list-style-type: none"> 1. Bring a practical copy with ruled (lined) pages on the right and blank pages on the left. 2. On each program page: <ul style="list-style-type: none"> • Write the problem statement with black pen on the ruled side. • Write the Python code with blue pen on the ruled side. • Write the output neatly with black pen on the blank side. 3. Only one program on one page. Do not write more than one program per page. 4. On every open spread: <ul style="list-style-type: none"> • Left side (blank page): Draw or write the sample output. • Right side (lined page): Write the program heading, problem, and code. 5. Keep your handwriting neat and clean; leave proper margins and spacing between programs. 6. Use proper comments in every program to explain what the code is doing (e.g. # input marks, # calculate total, # print result). 7. All questions are based on sequential programming only. 8. Use input → processing → output. 9. Do not use if, for, while, lists, or functions. <p>Q1. School Bus Fare Calculator Write a program that asks the student for the number of days they used the school bus in a month and the fare per day. Calculate and print the total bus fare for that month. Inputs: days_used, fare_per_day Output: total_fare</p> <p>Q2. Library Late Fine A school library charges a late fine per day if a book is returned after the due date. Write a program that asks the user for number of days late and fine per day, then prints the total fine to be paid. Inputs: days_late, fine_per_day Output: total_fine</p> <p>Q3. Mobile Recharge Tracker A student buys a data pack that gives a fixed amount of data per day (in MB). Write a program to input data_per_day and number_of_days, and calculate the total data available for the full period. Inputs: data_per_day_MB, days Output: total_data_MB</p> <p>Q4. Stationery Purchase Bill A student buys notebooks, pens and pencils from a shop. Ask the user to enter quantity and price for each item and then calculate the total bill amount. Inputs: qty_notebooks, price_notebook, qty_pens, price_pen, qty_pencils, price_pencil Outputs: total_amount</p>

	<p>Q5. Electricity Bill (Simple) A home pays a fixed rate per unit of electricity. Write a program that takes units_consumed and rate_per_unit, then prints the electricity bill. Inputs: units, rate Output: bill_amount</p> <p>Q6. Trip Fuel Cost A family is going on a car trip. Ask the user to enter distance to travel (in km), average mileage of the car (km per litre), and price of fuel per litre. Compute and display the total fuel needed and the total fuel cost. Inputs: distance_km, mileage_kmpl, price_per_litre Outputs: fuel_needed_litres, total_cost</p> <p>Q7. Exam Result: Total and Percentage A student appears in five subjects of 100 marks each. Write a program to input marks in each subject, compute the total marks and percentage, and display them. Inputs: m1, m2, m3, m4, m5 Outputs: total, percentage</p> <p>Q8. Monthly Budget Balance A person records their monthly income and three main expenses: rent, food, and transport. Write a program that asks for these four values and calculates the amount of money left after paying these expenses. Inputs: income, rent, food, transport Output: balance_amount</p> <p>Q14. School Sports Day Medal Points A school gives 5 points for gold, 3 points for silver, and 1 point for bronze medals in sports. Ask the user to enter the number of gold, silver, and bronze medals won by their house. Calculate and display the total points scored by the house. Inputs: gold, silver, bronze Output: total_points Formula: $total_points = 5gold + 3silver + 1*bronze$</p> <p>Q10. Room Painting Cost A painter charges per square metre of wall area. For a rectangular room, ask the user for length, breadth, and height of the room, and rate per square metre. Assume four walls only (ignore floor and ceiling). Calculate total wall area and painting cost. Inputs: length, breadth, height, rate_per_sq_m Outputs: area, cost Formula for wall area: $area = 2 * height * (length + breadth)$</p>
Entrepreneurship	<p style="text-align: center;"><u>‘MARKET SURVEY’</u></p> <p>The students are required to prepare a market survey as per the guidelines issued by CBSE (available on www.cbse.academics.in). Submit a project report having essential features as follows:</p> <ul style="list-style-type: none"> • Conduct simple market research with the objectives of estimating demand for the existing product in the market.

	<ul style="list-style-type: none"> • Do research in the form of Questionnaire (No of questions in Questionnaire is 15, with 4 options given in each question.) • Conduct the survey for the innovative product. • Selection of product was already discussed in the class (Every student has to select different product as topic. It should not be match with other students. • While selecting the product keep in mind that product will be same in both the project • Avoid products whose use is banned by the society and government like alcohol, pan masala, tobacco products etc. • Project should be hand written. • Project must be presented in A4 size sheets (try to take colored and handmade sheets). • No cutting and overwriting are allowed. It should be a neat project. • Project must be creative and attractive. <p>The project file will be developed in the following sequence-</p> <ul style="list-style-type: none"> • Cover page • Certificate • Acknowledgement • Index • Executive summary / Introduction about product with photo • Objectives • General Features of the product • SWOT Analysis of different competitors (at least take 5 competitors) with photos, logo, tagline, USP and give your suggestions to the company as how they can improve their product • Respondents List (Questionnaire <u>must be filled by 20 respondents</u>) • Sample Questionnaire • Research Methodology • Analysis Table • Data analysis and interpretation of each question (with bar or pie diagrams) • Report Making • Appendix <ul style="list-style-type: none"> ✓ Questionnaire filled by 20 respondents ✓ Bibliography
<p>Informatics Practices</p>	<p>Instructions Use these instructions while writing SQL queries in your practical copy: Practical copy with ruled (lined) pages on the right and blank pages on the left. On each program page:</p> <ul style="list-style-type: none"> • Write the problem statement with black pen on the ruled side. • Write the SQL Command with blue pen on the ruled side. • Write the output neatly with black pen on the blank side. <p>Data Management: SQL Commands</p> <ol style="list-style-type: none"> 1. To create a database -School 2. To create student table with the student id, class, section, gender, name, dob, and marks as attributes where the student id is the primary key. 3. To insert the details of at least 5 students in the above table. 4. To display the entire content of table. 5. To display Rno, Name and Marks of those students who are scoring marks more than 50.

6. To display Rno, Name, DOB of those students who are born between '2005- 01-01' and '2005-12-31'.

Create a table named BOOK with the following structure:

Column Name	Data Type	Description
Book_ID	Integer	Unique ID of the book
Book_Name	Varchar(50)	Name of the book
Author	Varchar(30)	Author name
Price	Integer	Price of the book
Quantity	Integer	Number of books available
Publisher	Varchar(30)	Publisher name

1. Increase the price of the book Web Designing by 50.
2. Delete the record of the book whose Book_ID is 103.
3. Show the names of books starting with letter D.
4. Add a new column named Edition to the BOOK table.
5. Display distinct publisher names from the BOOK table.
6. Change the quantity of SQL Basics to 20

Physical Education

Practical 1

Make a project file on sports /game from the list as given running track, cricket, football, hockey grounds, Kho-Kho, Kabaddi, handball, volleyball, basketball, badminton.

History of the game

Skills

Terminology

Important Tournaments

5. Famous sports personalities

6 Injuries and treatment

Practical 2

Yoga

History of yoga

Yoga as an Indian heritage

Commercial Arts

1. Make a composition by arranging 2 or more still objects like flower Vase, Books, Pen stand, Planter, Utensils etc. and colour it.

- Size of the sheet- A3
- Medium- Pencil /Pen /Water colours/Oil pastels/Colour Pencils etc.
- No. of Sheets (compositions) to be submitted- 02 with different mediums

2. Design your first name in any suitable style and font.

You can use any kind of textures, patterns, zentangle art, doodle art or motifs to give a creative touch to your artwork.

- Size of the sheet- A-3
- Medium- Black Pen/marker/Black Paint/ water colours/ poster colours
- No. of Sheets to be submitted- 01

3. Choose any one Indian folk art and draw and paint it. Kindly make sure that the reference of folk art you select should be an authentic one.

Folk Arts of India for reference-

Warli/ Kalamkari/ Madhubani/ Mandana/ Alpona/ Gond/ Cheriya/ Pattachitra/ Any other.

- Size of the sheet- A3
- Medium-Acrylic / Poster colour
- No. of Sheets to be submitted- 01

4. Prepare a poster on the theme- **Australia –India Relations- A Partnership for the Future.**

- Size A2 or A3
- Medium- Hand Drawn (pencil, watercolours, acrylic, pastels)