

BIRLA SCHOOL, PILANI

Summer Vacation Home assignment (SVHA) session 2025-26 for class 12 (Science)

ENGLISH	<p>Submission: First Day After Vacation</p> <p>A: Answer the following in 120–150 words each.</p> <p>1. What is the 'Third Level'? How does it reflect Charley's inner conflict? Or</p> <p>Discuss the theme of linguistic and cultural loss in The Last Lesson. How is this theme made personal through the character of Franz?</p> <p>2. Write a dialogue between Charley and his psychiatrist friend Sam, discussing whether the Third Level is real or a figment of imagination Or</p> <p>How does Kamala Das express the theme of aging and fear of loss in the poem?</p> <p>B: Answer the following in 50 words each.</p> <p>1. You are the Cultural Secretary of your school. Draft a notice informing students about an inter-school poetry competition being organized after the vacation. Include all necessary details. Or</p> <p>You are the Principal of St. Mary's School, Delhi. Draft a formal invitation inviting the Chief Guest and other dignitaries to the Annual Day Celebration of your school.</p> <p>2. You are organizing the inauguration of your new public library in town. Draft a formal invitation to invite the local MLA to inaugurate the library. Or</p> <p>You have received a formal invitation to be the Chief Guest at a school's annual sports meet. Write a formal reply accepting the invitation.</p> <p>3. Draft an informal invitation to your friend inviting them to your 18th birthday party at home Or</p> <p>Write a report on the "Tree Plantation Drive" held in your society before the summer vacation. (120–150 words)</p>
PHYSICS	<p>1. Working model of Physics.</p> <p>2. 15 questions each from chapter 1 and 2 competency-based questions on fair copy from CBSE website.</p> <p>3. CBSE year questions of 2023 to 25 solve on fair copy of Chapter 1 and 2</p>
CHEMISTRY	<p>1. Solve assignment sheet given in the homework notebook (Solutions and Electrochemistry)</p> <p>2. Make a project file based on the topic assigned. (Handwritten)</p>
MATHEMATICS	<p>1. Solve board questions of chapters 1, 2, 3 and 4 from 2022 to 2025</p> <p>2. Design at least 3 case study questions from chapters 1, 3 and 4 each and solve them (3 questions from each chapter)</p> <p>3. Solve 20 extra questions from each chapter 1, 2, 3 and 4 Complete this homework assignment in separate notebook</p>
BIOLOGY	<p>Q1. Make one investigatory Project on any topic (Relevant) of your choice as discussed. Reporting/Writing of Project - A format, such as given below, can be followed.</p> <p>(i) Title of the investigatory project (ii) Objectives (iii) Materials needed (iv) Method: (v) Result (vi) Analysis and interpretation (vii) Discussion (viii) Conclusion (ix) References</p>

	<p>Q2. Do complete your Practical file as discussed.</p> <p>Q3. Do complete the assignments given to you in notebook. (L-4,5 & 6)</p> <p>Also do PYQ of these Chapters in notebook. (As discussed,)</p>
BIOTECHNOLOGY	<p>1. Solve the textbook questions for the chapter Recombinant DNA technology in fair notebook.</p> <p>2. Collect the information on any topic in biotechnology class XII syllabus with the help of internet. This can be used to prepare a project for the session 2025-2026.</p>
CS	<p>1. Real-Life with Lists & Tuples</p> <p>Create a Python program to store and process the following information:</p> <ul style="list-style-type: none"> · A list of marks scored in 5 subjects · A tuple containing the names of the subjects <p>Task:</p> <ul style="list-style-type: none"> · Display total and average marks using the list · Explain why a tuple is more suitable for storing subject names than a list · Mention one real-world example each for using lists and tuples <p>2. My Personal Database Plan</p> <p>Imagine you are creating a database for your small business (bookstore, tuition center, or food delivery).</p> <p>Task:</p> <ul style="list-style-type: none"> · Define 2 tables with at least 3 fields each (e.g., Customers and Orders) · Identify Primary Key and Foreign Key <p>3. Python vs DBMS (Logical Thinking + CS)</p> <p>Write 3–4 lines to explain:</p> <ul style="list-style-type: none"> · One key difference between Python data structures (like lists/tuples) and DBMS tables · Why a DBMS is preferred when managing large data instead of using only Python
I.P.	<p>Topic: Introduction to Pandas – Series in Python</p> <p>Instructions: Complete the following 3 tasks during your summer vacation. Use your own examples, write neatly, and connect your learning with real-life situations.</p> <p>1. My First Series! (Python + Real Life + Math)</p> <p>Create a Pandas Series to store any real-life data. Choose one from the examples below or create your own:</p> <ul style="list-style-type: none"> · Marks of 5 subjects · Prices of 6 grocery items · Temperatures recorded in 7 days <p>Task: Write the Python code to create the Series and display:</p> <ul style="list-style-type: none"> · The entire series · First 3 elements using head () · Last 2 elements using tail () <p>2. Sort It Out! (IT + Business Studies)</p> <p>Imagine you are managing a small store. You have a Series of product names with their prices.</p> <p>Task:</p> <ul style="list-style-type: none"> · Create a Series with product names as indices and prices as values · Use sort_values() to sort the items by price · Use sort_index() to sort them alphabetically <p>Explain how sorting helps in business decisions.</p>

	<p>3. Series Attributes Explorer (Python + Observation Skills)</p> <p>Take any Series (you can reuse one from above).</p> <p>Task: Access and write down the following attributes and explain in simple words what they show:</p> <ol style="list-style-type: none"> . size . index . values . dtype <p>Also answer: In which cases will you use a Pandas Series instead of a normal Python list?</p>
MUSIC	<p>Prepare a biography project for Board Examinations on the following artists. Make sure each artist has a minimum of five pages with one colorful photograph of A4 size</p> <ol style="list-style-type: none"> 1.pandit krishan Rao shanker pandit ji 2.pandit Bhimsen Joshi 3.ustaad bade Gulam ali khan 4.vidhushi kishori Amonkar ji 5.Vidushi Kaushiki Chakraborty <p>Title of the project</p> <p>Legends of Hindustani Music Vocal 2024-25</p> <p>The first three pages are Mandatory</p> <ol style="list-style-type: none"> 1.cover page 2.Acknowledgement 3.Certificate
AI	<p>Topics: Data Science Methodology & Model Evaluation</p> <p>Instructions: Complete the following 3 tasks over the summer break. Be creative, connect your learning with real-world applications and other subjects, and present your work neatly using your own words and examples.</p> <p>1. Real-World Data Science (AI + Economics + Social Science)</p> <p>Choose a real-life problem where data can be used (e.g., predicting crop yield, student performance, or online shopping trends).</p> <p>Task: Write a short report (150–200 words) explaining how the 10 stages of the Data Science Methodology can be applied to solve this problem. Use bullet points or flowcharts to explain each stage clearly.</p> <p>2. Cross-Validation in Action (AI + Biology)</p> <p>Suppose you're working on a model to predict the spread of a plant disease based on weather and soil data.</p> <p>Task: Explain how cross-validation helps ensure that your model is reliable and not just memorizing the training data. Use a biology-related example in your explanation.</p> <p>3. Create a Confusion Matrix (Math + AI)</p> <p>You developed a binary classification model that predicts whether a transaction is fraudulent. Out of 100 cases, your model predicted:</p> <ul style="list-style-type: none"> · 60 True Positives · 25 True Negatives · 10 False Positives · 5 False Negatives <p>Task: Draw the confusion matrix, calculate accuracy, precision, and recall, and explain what these metrics tell us.</p>

ECONOMICS	<ol style="list-style-type: none"> 1. Make a project on such subject which has been discussed in the class and submit it in file. 2. Solve 10 numerical questions of National Income Accounting.
PHYSICAL EDUCATION	<p>Write one game of your choice in physical education practical file which include:</p> <ol style="list-style-type: none"> 1. History of the game 2. Rules of the game 3. Terminology of the game 4. Diagram and dimensions 5. Sports personalities