

**BIRLA SCHOOL, PILANI**  
**Summer Vacation Home Assignment**  
**Session 2026-27 for classes XI**

ENGLISH	<ol style="list-style-type: none"> <li>1. Prepare a short research project on any one of the following topics: <ul style="list-style-type: none"> <li>• How do Instagram and WhatsApp affect the way we use language?</li> <li>• Why do teenagers prefer movies over books?</li> <li>• Can memes be considered a powerful form of communication?</li> <li>• Why are fantasy stories like Harry Potter so popular among teens?</li> <li>• Do music lyrics influence the thinking and behaviour of teenagers?</li> </ul> </li> <li>2. Select any one topic from the list. <ul style="list-style-type: none"> <li>• Conduct research by: <ul style="list-style-type: none"> <li>• Taking interviews</li> <li>• Listening to podcasts/interviews</li> <li>• Watching relevant radio or TV documentaries</li> </ul> </li> <li>• Frame a set of questions based on the chosen topic.</li> <li>• Analyse the responses and prepare a report either supporting or opposing the views gathered.</li> </ul> </li> <li>3. Write a report of 800–1000 words</li> <li>4. Submit the project via mail.</li> <li>5. Project must Include: <ol style="list-style-type: none"> <li>i. Cover Page (Title, student details, school details)</li> <li>ii. Statement of Purpose / Objectives</li> <li>iii. Certificate of Completion (under teacher’s guidance)</li> <li>iv. Action Plan for completing the project</li> <li>v. Supporting Materials, such as: <ul style="list-style-type: none"> <li>vi. Questionnaires</li> <li>vii. Interview transcripts</li> <li>viii. Survey reports / written responses</li> <li>ix. Scripts (if any role play is included)</li> <li>x. Main Report (800–1000 words)</li> <li>xi. Student/Group Reflection</li> <li>xii. Photographs (if available, showing project work)</li> <li>xiii. Bibliography / List of Resources</li> </ul> </li> </ol> </li> </ol>
MATHEMATICS	<p>Write all formulas of Arithmetic Progression, Mensuration, Statistics &amp; Probability</p> <p>Solve 20 questions from Applications of Set Theory.</p>
I.P.	<p>Topic: Introduction to Python Programming</p> <ol style="list-style-type: none"> <li>1. Python in Real Life (Math + Science + Python) Write the Python code for them: <ul style="list-style-type: none"> <li>• Calculate total marks, percentage &amp; grade for 5 subjects</li> <li>• Find area and perimeter of a rectangle or circle</li> <li>• Write the program code, sample input/output, and mention where this program can be useful in daily life.</li> </ul> </li> <li>2. Think Like a Programmer! Answer the following in 3–4 lines each: <ul style="list-style-type: none"> <li>• a) What are the advantages and disadvantages of Python?</li> <li>• b) What is the difference between interactive mode and script mode in Python?</li> </ul> </li> </ol>

MUSIC	Submit a well-researched project on Hindustani Classical Singers. (The list of singers has already been provided in class.)
AI	<p><b>Part 1: Brainstorming &amp; Conceptual Application (Unit 1)</b></p> <p><b>1. The "Is it AI?" Challenge</b></p> <ul style="list-style-type: none"> <li>• <b>Task:</b> Identify three smart devices in your home or school. For each, determine if it uses Artificial Intelligence or is simply a rule-based system.</li> <li>• <b>Brainstorming Goal:</b> Explain your reasoning. Does the device learn from data and improve its performance, or does it strictly follow a pre-programmed "if-else" logic without adaptation?</li> </ul> <p><b>2. Domain Detective</b></p> <ul style="list-style-type: none"> <li>• <b>Task:</b> Choose one of the following domains: <b>Natural Language Processing (NLP), Computer Vision, or Data Science.</b></li> <li>• <b>Brainstorming Goal:</b> Research a real-world problem (e.g., traffic congestion, ocean plastic, or fake news) and brainstorm how an AI application in your chosen domain could help solve it.</li> </ul> <p><b>3. Evolution &amp; Future Impact</b></p> <ul style="list-style-type: none"> <li>• <b>Task:</b> Reflect on the historical milestones of AI, specifically the landmark year of 1950 and the "AI Winter".</li> <li>• <b>Brainstorming Goal:</b> Why did the "AI Winter" happen, and why is the 21st century experiencing an "AI Renaissance"? How do you think <b>General AI</b> (capable of human-level abstract thinking) will change your chosen future career?</li> </ul> <p><b>Part 2: Python Programming Assignment (Unit 3)</b></p> <p><b>Section A: Fundamentals &amp; Tokens</b></p> <ol style="list-style-type: none"> <li>1. <b>Token Analysis:</b> Write a program that calculates the square root of 625 using the math library. Identify all the <b>keywords, identifiers, literals, operators, and punctuators</b> in your code.</li> <li>2. <b>Data Type Logic:</b> Explain the difference between <b>mutable</b> (e.g., List) and <b>immutable</b> (e.g., Tuple, String) data types with a short Python script that attempts to change an element in both.</li> <li>3. <b>Input/Output &amp; Casting:</b> Create a program that accepts a user's basic salary, calculates HRA (30%), DA (20%), and PF (12%), and displays the final <b>Net Salary</b>. Ensure you use <b>type casting</b> to handle the numerical input.</li> </ol> <p><b>Section B: Control Flow &amp; Loops</b></p> <ol style="list-style-type: none"> <li>4. <b>Selection Mastery:</b> Write a program to classify a triangle as equilateral, isosceles, or scalene based on the lengths of its sides entered by the user.</li> <li>5. <b>Iteration Challenge:</b> Use a for loop and the range() function to display all <b>even numbers</b> and their squares between 100 and 150.</li> <li>6. <b>String Processing:</b> Write a script that takes a long sentence from the user, splits it into a list of words, and prints the length of each word.</li> </ol> <p><b>Submission Requirements:</b></p> <ul style="list-style-type: none"> <li>• A written report for the brainstorming tasks.</li> </ul>

	<ul style="list-style-type: none"> <li>• The Python code (.py files) for all programming tasks.</li> <li>• A screenshot of the output for each program.</li> </ul>
ACCOUNTANCY	<p><b>“Accounting in Real Life”</b></p> <p><b>Objective</b></p> <ul style="list-style-type: none"> <li>• Connect accounting concepts with daily life.</li> <li>• Improve analytical and presentation skills.</li> <li>• Develop financial awareness and creativity.</li> <li>• Strengthen conceptual understanding of Class XI Accountancy.</li> </ul> <p><b>General Instructions</b></p> <ul style="list-style-type: none"> <li>• Complete the assignment in a separate decorative file/project notebook.</li> <li>• Maintain neat handwriting and proper presentation.</li> <li>• Use charts, pictures, newspaper cuttings, bills, tables, and creative designs wherever possible.</li> <li>• Attempt all questions independently.</li> <li>• Submissions should include Cover Page, Index, Acknowledgement, Main Assignment, and Bibliography.</li> </ul> <p><b>Part A – Creative Accounting Project (10 Marks)</b></p> <p><b>Topic: My Dream Business</b></p> <ul style="list-style-type: none"> <li>• Create details of your business including name, nature, logo/slogan, products or services, estimated investment and sources of capital.</li> <li>• Prepare 20 imaginary business transactions related to your business.</li> <li>• Identify accounts involved and classify them into Assets, Liabilities, Capital, Revenue and Expenses.</li> <li>• Prepare Accounting Equation and Journal Entries.</li> </ul> <p><b>Part B – Investigative Activity (5 Marks)</b></p> <p>Visit any nearby business/shop and prepare a report covering:</p> <ul style="list-style-type: none"> <li>• Type of business</li> <li>• Methods of payment accepted</li> <li>• Importance of accounting in that business</li> <li>• Bills/invoices used</li> <li>• Problems faced in maintaining accounts</li> <li>• Role of technology in accounting</li> </ul> <p>Attach photographs or sample bills/invoices if possible.</p> <p><b>Part C – Financial Awareness Activity (5 Marks)</b></p> <p>Prepare a simple monthly family budget under suitable heads such as Food, Education, Electricity, Transport, Medical, Savings and Miscellaneous.</p> <ul style="list-style-type: none"> <li>• Why is budgeting important?</li> <li>• Which expense category is the highest?</li> <li>• How can savings be improved?</li> <li>• What financial lessons did you learn?</li> </ul> <p><b>Part D – Concept Builder (10 Marks)</b></p> <p><b>A. MCQs</b></p> <ul style="list-style-type: none"> <li>• Which accounting concept assumes that business and owners are separate? a) Money Measurement b) Business Entity c) Matching d) Conservatism</li> <li>• Increase in liability results in: a) Decrease in assets b) Increase in capital c) Increase in assets or decrease in capital d) No effect</li> <li>• Goods withdrawn by proprietor for personal use are called:</li> </ul>

	<p>a) Sales b) Purchases c) Drawings d) Expenses</p> <ul style="list-style-type: none"> <li>• Which book records credit purchases?</li> </ul> <p>a) Sales Book b) Purchase Book c) Cash Book d) Journal Proper</p> <ul style="list-style-type: none"> <li>• Capital introduced in business increases:</li> </ul> <p>a) Assets and Capital b) Assets and Liabilities c) Liabilities only d) Expenses</p> <p><b>B. Case Study</b></p> <p>Riya started a bakery business with ₹2,00,000. She purchased oven machinery for ₹50,000, bought raw materials for ₹20,000 on credit, sold cakes worth ₹15,000 for cash, and paid electricity bill ₹2,000.</p> <ul style="list-style-type: none"> <li>• Prepare Accounting Equation.</li> <li>• Identify Capital, Asset, Liability, Income and Expense.</li> </ul> <p><b>C. Higher Order Thinking Question</b></p> <p>“Technology has changed the way accounting is done.” Explain this statement with examples of online payments, accounting software, digital invoices, GST billing, and cloud accounting.</p> <p><b>Part E – Fun with Learning (Bonus Activity)</b></p> <ul style="list-style-type: none"> <li>• Design an advertisement/poster for your dream business.</li> <li>• Create a short video explaining accounting in daily life.</li> <li>• Prepare a chart on Branches of Accounting.</li> <li>• Make a comic strip on A Day in the Life of an Accountant.</li> </ul> <p><b>Viva Questions</b></p> <ul style="list-style-type: none"> <li>• What is accounting?</li> <li>• Why are journal entries important?</li> <li>• Difference between assets and liabilities.</li> <li>• What is capital?</li> <li>• Why is accounting called the language of business?</li> </ul> <p>Assessment Criteria</p> <p><b>Criteria Marks</b></p> <ul style="list-style-type: none"> <li>• Creativity &amp; Presentation 5</li> <li>• Accuracy of Accounting Work 10</li> <li>• Practical Understanding 5</li> <li>• Neatness &amp; Timely Submission 5</li> <li>• Conceptual Clarity 5</li> </ul>
BUSINESS STUDIES	<ul style="list-style-type: none"> <li>• Visit any Bank, collect all banking forms and submit in a file.</li> <li>• Prepare Project File on Retail Trade &amp; other business Activity. Submit the Project in a file.</li> </ul>
ECONOMICS	<ul style="list-style-type: none"> <li>• Prepare a Project file on any topic of Economics. Submit it in a file.</li> <li>• Collect Various information relating to Census of India and submit in a separate notebook.</li> </ul>