

Class XII Informatics Practices (065) Split-up Syllabus (2026-27)

Month	Unit / Topics to be Covered	Scheduled Assessment
April 2026	<p>Unit 1: Data Handling using Pandas - I • Introduction to Python libraries: Pandas, Matplotlib. • Series: Creation from ndarray, dictionary, scalar; mathematical operations; head() and tail() functions; selection, indexing, and slicing.</p>	Monthly Test-I (April 29 – May 7) <i>Syllabus up to April 27.</i>
May 2026	<p>Unit 1: (Continued) • Data Frames: Creation from dictionary of Series, list of dictionaries, Text/CSV files; display and iteration. • Operations on rows and columns: add, select, delete, rename.</p>	
June 2026	<p>Unit 1: (Continued) • Data Frames: Indexing using labels, Boolean indexing; Importing/Exporting data between CSV files and Data Frames. • Data Visualization: Purpose of plotting; drawing line plots and bar graphs using Matplotlib.</p>	Monthly Test-II (June 15 – June 24) <i>Syllabus up to 2nd week of June.</i>
July 2026	<p>Unit 1: (Continued) • Data Visualization: Histograms; Customizing plots (labels, titles, legends). Unit 2: Database Query using SQL • Revision of Class XI database concepts and SQL commands.</p>	Monthly Test-III (July 2026) <i>Follows standard testing pattern.</i>
August 2026	<p>Unit 2: (Continued) • SQL Functions: Math (POWER, ROUND, MOD), Text (UCASE, LCASE, MID, LENGTH, etc.), and Date (NOW, DATE, MONTH, YEAR, etc.).</p>	Monthly Test-IV (August 24 – Sept 3) <i>Syllabus up to 3rd week of August.</i>
September 2026	<p>Unit 2: (Continued) • Aggregate Functions (MAX, MIN, AVG, SUM, COUNT); Group by, Having, Order by; Equi-join. Unit 3: Introduction to Computer Networks • Types of networks (PAN, LAN, MAN, WAN), devices (modem, hub, switch, etc.), and topologies (Star, Bus, Tree, Mesh).</p>	Monthly Test-V (September 2026) <i>Follows standard testing pattern.</i>
October 2026	<p>Unit 3: (Continued) • Internet, WWW, Web browsers, settings, and hosting. Unit 4: Societal Impacts • Digital footprint, IPR, plagiarism, cybercrime, Indian IT Act, and E-waste management. • Syllabus Completion & Revision.</p>	Pre-Board-I (Oct 26 – Nov 5) <i>Covers whole syllabus.</i>

Practical and Project Guidelines

- **Project Work:** Students must identify a real-world problem and develop an application using Python libraries and SQL. This project should be initiated at least **6 months** before the October completion target (ideally by April or May).
- **Practical Record:** The final practical file must include a minimum of **15 Pandas programs, 4 Matplotlib programs, and 15 SQL queries.**
- **Target:** All teaching and internal practical assessments should be finalised by **October 25** to allow students to focus on the first Pre-Board examination.