

Class XII Computer Science (083) Split-up Syllabus (2026-27)

Month	Unit / Topics to be Covered	Scheduled Assessment
April 2026	Unit 1: Computational Thinking and Programming – 2 • Revision of Python topics from Class XI. • Functions: Types (built-in, module, user-defined), arguments, parameters, default/positional parameters, return values, flow of execution, and scope (global/local).	Monthly Test-I (April 29 – May 7) <i>Syllabus covered up to April 27.</i>
	Unit 1: (Continued) • Exception Handling: Introduction, try-except-finally blocks. • File Handling (Text files): Open modes (r, w, a, etc.), closing, with clause, writing (write, writelines), reading (read, readline, readlines), seek and tell methods, and data manipulation.	
May 2026	Unit 1: (Continued) • File Handling (Binary files): Open modes (rb, wb, etc.), pickle module, dump() and load(), search, append, and update operations. • File Handling (CSV files): csv module, writer(), writerow(), writerows(), and reader().	Monthly Test-II (June 15 – June 24) <i>Syllabus covered up to 2nd week of June.</i>
June 2026	Unit 1: (Continued) • Data Structure: Stack, operations (push & pop), and implementation using lists. Unit 2: Computer Networks • Evolution of networking (ARPANET, Internet), Data communication terminologies (bandwidth, IP address, switching), and Transmission media (Wired/Wireless).	Monthly Test-III (Dates not specified, follows June pattern).
July 2026	Unit 2: (Continued) • Network devices (Modem, Hub, Switch, etc.), Topologies (Bus, Star, Tree), Types (PAN, LAN, etc.), Protocols (HTTP, FTP, TCP/IP, etc.), and Web services (WWW, HTML, XML, hosting). Unit 3: Database Management • Database concepts and Relational data model (attribute, tuple, keys).	Monthly Test-IV (August 24 – September 3) <i>Syllabus covered up to 3rd week of August.</i>
August 2026	Unit 3: (Continued) • Structured Query Language (SQL): DDL and DML, data types, constraints, create/drop database, create/alter/drop table, Insert, Delete, Select, operators, Order By, Group By, and Joins (cartesian, equi-join, natural join).	Monthly Test-V (Dates not specified, follows August pattern).
September 2026	Unit 3: (Continued) • Interface of Python with SQL: Database connectivity, performing queries (insert, update, delete) using cursor, execute(), commit(), and fetching data (fetchone, fetchall). • Syllabus Completion & Revision.	Pre-Board-I (October 26 – November 5) <i>Covers whole syllabus.</i>
October 2026		

Important Practical & Project Milestones

- **Project Work:** As per the syllabus, students should start their real-world problem-solving project (using File Handling or Python-SQL connectivity) at least **6 months before the deadline**. For a October completion, the project should ideally be initiated by **April or May**.
- **Practical Record:** The report file must eventually include a minimum of **15 Python programs, 5 sets of SQL queries, and 4 connectivity programs**.
- **Completion Target:** The entire syllabus, including Unit 3 connectivity, must be finalised by **October 25** to prepare for the first Pre-Board examination starting the next day.