

# DELHI PUBLIC SCHOOL, JAMMU

## Session : 2025-2026

Subject: Informatics Practices (065)

Class: XII

### Syllabus Bifurcation

Informatics Practices is **the study of computation, automation, and information**. Computer science spans theoretical disciplines (such as algorithms, data frames, and information theory) to practical disciplines (including the design and implementation of hardware and software).

#### **OBJECTIVES OF THE THEORY:**

To produce programmers equipped with an understanding of

1. Fundamental computational concepts underlying most programming languages.
2. The role of programming within the overall software development process.

#### **OBJECTIVES OF PROJECT :**

The aim of the class project is to create tangible and useful IT application. The learner may identify a real-world problem by exploring the environment. e.g. Students can visit shops/business places, communities or other organizations in their localities and enquire about the functioning of the organization, and how data are generated, stored, and managed. The learner can take data stored in csv or database file and analyze using Python libraries and generate appropriate charts to visualize. Learners can use Python libraries of their choice to develop software for their school or any other social good. Learners should be sensitized to avoid plagiarism and violation of copyright issues while working on projects. Teachers should take necessary measures for this. Any resources (data, image etc.) used in the project must be suitably referenced. The project can be done individually or in groups of 2 to 3 students. The project should be started by students at least 6 months before the submission deadline.

<u>S.no</u>	<u>Month</u>	<u>Name of the Lesson/Topic</u>
1.	April	<b>Data Handling using Pandas</b>
2.	May	Data Visualization using Matplotlib <ul style="list-style-type: none"><li>• Revision Sheet on the related topic.</li></ul>
3.	June & July	<b>Review of Database concepts and SQL</b>
4.	August	<b>Database Query Using SQL</b> <ul style="list-style-type: none"><li>• Performing the Practical Test for the related topic.</li></ul>

5.	September	<b>Computer Networks</b> <ul style="list-style-type: none"> <li>Kahoot Quiz Activity</li> </ul>
6. by,	October	<b>Database Management</b> , Aggregate functions (max, min, avg, sum, count), group having clause, joins : Cartesian product on two tables, equi-join and natural join Solving Questions Based on Previous Year Question Papers.
7.	November	<b>Societal Impacts</b> <ul style="list-style-type: none"> <li>Revision Test through Assignments</li> </ul>
8.	December	<b>Revision of chapter Data Handling using Pandas</b> <ul style="list-style-type: none"> <li>Assessment of Project Work</li> </ul>
9.	January	<b>Revision of Data Visualization using Matplotlib</b>
10.	February	<ul style="list-style-type: none"> <li>Class Tests/ Practical Implementation of the Programs to be done</li> <li>Doubt clearing session</li> <li>Quick Recap of Most Important Topics for Practical Exams</li> </ul>
11.	March	Revision for Final Examination <ul style="list-style-type: none"> <li>Practice of Sample Question Papers</li> </ul>

## EXAM SCHEDULE

### Syllabus for Cycle Test-I

1. Data Handling Using Pandas

### Syllabus for Half Yearly Examination

1. Data Handling Using Pandas
2. Data Visualization using Matplotlib
3. Review of Database Concepts and SQL

#### **Syllabus for Pre-Board-I**

1. Data Handling Using Pandas
2. Data Visualization using Matplotlib
3. Review of Database Concepts and SQL
4. Database Query using SQL
5. Computer Networks

#### **Syllabus for Pre-Board-II**

1. Data Handling Using Pandas
2. Data Visualization using Matplotlib
3. Review of Database Concepts and SQL
4. Database Query using SQL
5. Computer Networks
6. Societal Impacts

#### **Syllabus for Pre-Board-III**

1. Data Handling Using Pandas
2. Data Visualization using Matplotlib
3. Review of Database Concepts and SQL
4. Database Query using SQL
5. Computer Networks
6. Societal Impacts

Mrs. Meenakshi Jamwal  
(SUBJECT COORDINATOR)