



# VISHAL INTERNATIONAL SCHOOL

YEARLY SYLLABUS - [2023-2024]

CLASS - XII

Subject - English

<b>April &amp; May</b>	<b>Flamingo</b> : Chapter – 1 , 2. The Last Lesson , Lost Spring. <b>Vistas</b> : Chapter – 1 , 2 The Third Level , The Tiger king <b>Poetry</b> : Mother at 66, <b>Writing Skills</b> – Notices , Articles , Reports.
<b>P.T. - 1</b>	<b>Flamingo</b> : Chapter – 1 , 2 <b>Vistas</b> : Chapter – 1 , 2 <b>Poetry</b> : Mother at Sixty six <b>Writing Skills</b> : Notices , Articles, Letters
<b>July &amp; August</b>	<b>Flamingo</b> : Chapter – 3 , 4 & 5 <b>Vistas</b> : Chapter – 3 , 4 <b>Poetry</b> : Keeping Quiet , Thing of Beauty <b>Writing Skills</b> - Letters, job Application , Formal /Informal Invitation.
<b>Half Yearly Exams</b>	<b>Flamingo</b> : Chapter – 2 , 3, 4 & 5 <b>Vistas</b> : Chapter – 2 , 3 & 4 <b>Poetry</b> : Mother at 66, Keeping , Quiet , Thing of Beauty. <b>Writing Skills</b> - Notices , Articles, Reports, Letter, Application [Job] invitation.
<b>September &amp; October</b>	<b>Flamingo</b> :Chapter – 6 , 7 <b>Vistas</b> : Chapter – 6 , 8 <b>Poetry</b> : Aunt Jennifer's Tiger <b>Writing Skills</b> - Speech
<b>P.T. - 2</b>	<b>Flamingo</b> : Chapter – 6 7 <b>Vistas</b> :Chapter – 6 , 8 <b>Poetry</b> : Aunt Jennifer's Tiger <b>Writing Skills</b> – Invitation Letters.
<b>November</b>	<b>Flamingo</b> :Chapter – 8 <b>Vistas</b> : Chapter – 8 & 3 <b>Poetry</b> : Roadside Stand
<b>Pre Board Exams</b>	All Syllabus According to CBSE 2021.

**Class - 12**  
**Subject - Hindi**

अंतरा भाग - 2		अंतराल भाग - 2	अभिव्यक्ति और माध्यम
महीना	गद्य खंड	काव्य खंड	पाठ - 1 विभिन्न माध्यमों के लिए लेखन, पाठ - 2 पत्र कारीय लेखन।
अप्रैल- मई	पाठ - 1 प्रेमधन की छाया स्मृति। पाठ - 2 सुमिरिनी के मनके	पाठ - 1 देवसेना का गति, कार्नेलिया की गीत, पाठ - 2 सरोज स्मृति पाठ - 3 बनारस दिशा।	पाठ - 1 सूरदास की झोपड़ी।
जुलाई- अगस्त	पाठ - 4 संवदिया, पाठ - 5 गाँधी, नेहरु पाठ - 6 लघु कथाएँ।	पाठ - 5 वसंत आया, तोड़ो, पाठ - 6 भरत - राम का प्रेम।	पाठ - 3 विशेषलेखन पाठ - 4 कविता पाठ - 5 नाटक।
सितंबर	पुनरावृत्ति अर्द्धवार्षिक परीक्षा।		
अक्टुबर- नवंबर	पाठ - 7 जहाँ कोई वापसी नहीं। पाठ - 9 दूसरा देवदास पाठ - 10 कुटज।	पाठ - 7 बारहमासा पाठ - 8 पद पाठ - 9 कविता	पाठ - 3 बिस्कोहर की माटी पाठ - 4 अपना मालव।
पाठ - 6 कैसे करे कहानी का नाट्य रूपांतरण पाठ - 7 रेडियो नाटक पाठ - 8 नस - अप्रव्याशित विषयों पर लेखन।			
P.T. - 1	गद्य खंड - पाठ - 1, 2 काव्य खंड - पाठ - 1, 2	अभिव्यक्ति माध्यम पाठ - 1	

<b>Class - 12 Subject - Mathematics</b>	
<b>MONTH</b>	<b>CONTENT</b>
APRIL & MAY	<ul style="list-style-type: none"> <li>➤ Relations &amp; Functions</li> <li>➤ Inverse Trigonometric Functions</li> <li>➤ Matrices</li> <li>➤ Determinants</li> </ul>
<b>P.T. - 1</b>	<b>Relations &amp; Functions, Matrices, Determinants</b>
JULY	<ul style="list-style-type: none"> <li>➤ Differential Equations</li> <li>➤ Applications of Derivatives</li> <li>➤ Integrals</li> </ul>
AUGUST	<ul style="list-style-type: none"> <li>➤ Applications of the Integrals</li> <li>➤ Continuity and Differentiability</li> <li>➤ Vectors</li> </ul>
<b>SEPTEMBER</b>	<b>Revision + Half Yearly Exams</b>
OCTOBER	<ul style="list-style-type: none"> <li>➤ Three - dimensional Geometry</li> <li>➤ Linear Programming</li> <li>➤ Probability</li> </ul>
<b>NOVEMBER</b>	<b>Revision + Practice from other reference books</b>
<b>P.T. - 2</b>	<b>Applications of Derivatives , Probability , Integrals 3D, Geometry , Linear Programming</b>
DECEMBER & JANUARY	Whole Syllabus Revision + Pre-boards
FEBRUARY	Whole Syllabus Revision + Pre-boards

**Class - 12 Subject - Physics**

S.No	Month	Evaluation	Syllabus
1.	APRIL		<b>Chapter-1: Electric Charges and Fields</b> <b>Chapter-2: Electrostatic Potential and Capacitance</b>
2.	MAY		<b>Chapter-3: Current Electricity</b> <b>Practical-1:</b> To determine resistivity of two/three wires by plotting a graph for potential difference versus current. <b>Practical-2:</b> To find the resistance of a given wire /standard resistor using metre bridge. <b>Practical-3:</b> To verify the law of combination (series/parallel) of resistances using a metre bridge. <b>Activity 1:</b> To identify a diode, LED, resistor and a capacitor from a mixed collection of such items. <b>Activity 2:</b> To observe refraction and lateral deviation of a beam of light incident obliquely on a glass slab.
3.	JUNE	Holiday Home Work	<b>Prepare an Investigatory Project Report based on a Working Model.</b>
4.	JULY	First unit test (Syllabus chapter 1,2,3)	<b>Chapter-4: Moving Charges and Magnetism</b> <b>Chapter-5: Magnetism and Matter</b> <b>Practical-4:</b> To determine refractive index of a glass slab using a travelling microscope. <b>Activity 3:</b> To study the nature and size of the image formed by a convex lens, concave mirror on a screen by using a candle and a screen ( for different distances of candle from the lens/mirror.)
5.	AUGUST		<b>Chapter-6: Electromagnetic Induction</b> <b>Chapter-7: Alternating Currents</b> <b>Chapter-8: Electromagnetic Waves</b> <b>Practical- 5:</b> To find the value of $v$ for different values of $u$ in case of concave mirror and to find the focal length. <b>Practical -6:</b> To determine angle of minimum deviation for a given prism by plotting a graph.
6.	SEPTEMBER	Half Yearly Exam (Syllabus chapter 1,2,3,4,5, 6,7,8)	<b>Chapter-9: Ray Optics and Optical Instruments</b> <b>Chapter-10: Wave Optics</b> <b>Practical-7:</b> To find the focal length of a convex mirror using a convex lens. <b>Practical-8:</b> To find the focal length of a concave lens using a convex lens.
7.	OCTOBER		<b>Chapter-11: Dual Nature of Radiation and Matter</b>

			<p><b>Chapter-12: Atoms</b></p> <p><b>Activity-4:</b> To assemble the components of a given electrical circuit.</p> <p><b>Activity 5:</b> To study the variation of potential drop with length of a wire for a steady current.</p> <p><b>Activity 6:</b> To draw the diagram of a given open circuit comprising at least a battery, resistor/rheostat, ammeter and voltmeter. Mark the components that are not connected in proper order and correct the circuit and also the circuit diagram.</p>
8.	NOVEMBER	Second unit test (Syllabus chapter 9,10,11)	<p><b>Chaper-13: Nuclei</b></p> <p><b>Chapter-14:Semiconductor Electronics</b></p> <p><b>Revision</b></p>
9.	DECEMBER	Preboard I (Full Syllabus) Ch- 1,2,3,4,5,6, 7,8,9,10,11, 12,13,14	<p><b>First Pre-Board Examination</b></p> <p><b>Revision</b></p>
10.	JANUARY	Preboard II (Full Syllabus)	<p><b>Second Pre- Board Examination</b></p> <p><b>Revision</b></p>
11.	FEBURARY	PRACTICAL EXAMINATION	<b>Revision</b>
12.	MARCH	THEORY EXAMINATION	

**CLASS XII SUBJECT: CHEMISTRY**

<b>S.No.</b>	<b>Month</b>	<b>Name of Chapter</b>	<b>No. of Periods</b>	<b>Marks</b>
1	April	Solution	15	7
2	May	Electrochemistry	18	9
3	July	Chemical Kinetics	15	7
4	July	The d & f Block Elements	18	7
5	August	Coordination Compounds	18	7
HALF YEARLY EXAM				
6	September	Haloalkanes and Haloarenes	15	6
7	October	Alcohols, Phenols and Ethers	14	6
8	October	Aldehydes, Ketons and Carboxylic Acids	15	8
9	November	Amines	14	6
10	November	Biomolecules	18	7
PRE-BOARD EXAM				
Revision+Practical				

<b><u>Class - 12 Subject - Biology</u></b>		
<b>Ch. No.</b>	<b>Chapter Name</b>	<b>Months</b>
		April & May
1.	Sexual reproduction in flowering plants	
2.	Human reproduction	
3.	Representative health	
<b>Periodic Test- I</b>		
4.	Principles of inheritance and variation	July & August
5.	Molecular Basis of inheritance	
6.	Evolution	
<b>Half Yearly Exam</b>		
7.	Human health and Disease	October & November
8.	Microbes in human welfare	
9.	Biotechnology: principles and processes	
10.	Biotechnology and its application	November , December and January
11.	Organisms and population	
12.	Biodiversity and conservation	
13.	Ecosystem	
<b>PRE BOARD</b>		

<b>Class - 12 Subject – Accountancy</b>	
<b>April</b>	<b>Volume:- I</b> <b>Chapter – 1</b> Fundamental Accounting <b>Accounting For Partnership Firms</b> <b>Volume:- III Chapter – 3</b> Accounting Ratio.
<b>May</b>	<b>Volume :- I Chapter – 2</b> Goodwill Nature and Valuation. <b>Chapter – 3</b> Change In Profit Sharing Ratio. <b>Among the Existing Partners.</b>
<b>July</b>	<b>Chapter – 4</b> Admission of Partners <b>Chapter – 5</b> Retirement / Death of Partner <b>Chapter – 6</b> Dissolution of Partnership Firm.
<b>August</b>	<b>Chapter – 7</b> Issue of Shares. <b>Chapter – 8</b> Issues of Debentures
<b>September</b>	<b>Half Yearly.</b>
<b>October</b>	<b>Volume – III</b> <b>Chapter – 1</b> Financial State of company. <b>Chapter – 2</b> Financial Statement Analysis. <b>Chapter – 3</b> Tool of Financial Stat analysis.
<b>November</b>	<b>Volume III</b> <b>Chapter – 5</b> <b>Cash Flow Statement.</b>
<b>P.T. – 1 Syllabus</b>	<b>Chapter – 1</b> Fundamental Accounting <b>Chapter – 2</b> Goodwill Nature and Valuation.
<b>P.T.- 2 Syllabus</b>	<b>Chapter – 3</b> Change In Profit Sharing Ratio. <b>Among the Existing Partners.</b> <b>Chapter – 4</b> Admission of Partners <b>Chapter – 5</b> Retirement / Death of Partner <b>Chapter – 6</b> Dissolution of Partnership Firm.
<b>Half Yearly Syllabus</b>	<b>Chapter – 1</b> Fundamental Accounting <b>Chapter – 2</b> Goodwill Nature and Valuation. <b>Chapter – 3</b> Change In Profit Sharing Ratio. <b>Among the Existing Partners.</b> <b>Chapter – 4</b> Admission of Partners <b>Chapter – 5</b> Retirement / Death of Partner



	<p><b>Chapter - 6</b> Dissolution of Partnership Firm.  <b>Chapter- 1 Issue of shares [Volume 2]</b></p>
<b>Pre Board - 1 Syllabus</b>	<p><b>Chapter - 1</b> Fundamental Accounting  <b>Chapter - 2</b> Goodwill Nature and Valuation.  <b>Chapter - 3</b> Change In Profit Sharing Ratio.  <b>Among the Existing Partners.</b>  <b>Chapter - 4</b> Admission of Partners  <b>Chapter - 5</b> Retirement / Death of Partner  <b>Chapter - 6</b> Dissolution of Partnership Firm.  <b>Chapter - 1</b> Issue of shares [Volume 2]  <b>Chapter - 2</b> Issue of Debentures  <b>Chapter - 1</b> Financial State of company. [Volume3]  <b>Chapter - 2</b> Financial Statement Analysis. [Volume3]  <b>Chapter - 4</b> Accounting Ratio .</p>
<b>Pre Board - 2 Syllabus</b>	<p><b>Chapter - 1</b> Fundamental Accounting  <b>Chapter - 2</b> Goodwill Nature and Valuation.  <b>Chapter - 3</b> Change In Profit Sharing Ratio.  <b>Among the Existing Partners.</b>  <b>Chapter - 4</b> Admission of Partners  <b>Chapter - 5</b> Retirement / Death of Partner  <b>Chapter - 6</b> Dissolution of Partnership Firm.  <b>Chapter - 1</b> Issue of shares [Volume 2]  <b>Chapter - 2</b> Issue of Debentures  <b>Chapter - 1</b> Financial State of company. [Volume3]  <b>Chapter - 2</b> Financial Statement Analysis. [Volume3]  <b>Chapter - 4</b> Accounting Ratio.  <b>Chapter - 5</b> Cash Flow Statement</p>

<b>Class - 12 Subject – Economics</b>	
<b>April &amp; May</b>	<ul style="list-style-type: none"> <li>• Introduction</li> <li>• Some Basic Concepts of Macroeconomics</li> <li>• National Income and Related Aggregates</li> <li>• Methods of Calculating National Income</li> </ul>
<b>PT- 1</b>	<ul style="list-style-type: none"> <li>• Introduction</li> <li>• Some Basic Concepts of Macroeconomics</li> <li>• National Income and Related Aggregates</li> <li>• Methods of Calculating National Income</li> </ul>
<b>July &amp; August</b>	<ul style="list-style-type: none"> <li>• Money</li> <li>• Banking</li> <li>• Indian Economy on the eve of independence</li> <li>• Economics System</li> <li>• Economics Reforms Since 1991 - New Economics Policy</li> </ul>
<b>September</b>	<ul style="list-style-type: none"> <li>• <b>Human capital Formation Revision + Half Yearly Exam.</b></li> </ul>
<b>Half Yearly Exams</b>	<ul style="list-style-type: none"> <li>• Introduction</li> <li>• Some Basic Concepts of Macroeconomics</li> <li>• National income and Related Aggregates</li> <li>• Methods of Calculating national Income</li> <li>• Money</li> <li>• Banking</li> <li>• Indian Economy on the eve of independence</li> <li>• Economics System</li> <li>• Economics Reforms Since 1991 - New Economic Policy</li> <li>• Human Capital formation.</li> </ul>
<b>October &amp; November</b>	<ul style="list-style-type: none"> <li>• Aggregate Demand , Aggregates Supply &amp; related Concepts</li> <li>• Problem of Deficition demand and Excess demand.</li> <li>• Government Budgets and the economy</li> <li>• Rural development</li> <li>• Employment</li> <li>• Environment and Sustainable Development</li> </ul>
<b>PT-2</b>	<ul style="list-style-type: none"> <li>• Aggregate Demand , Aggregates Supply &amp; related Concepts</li> <li>• Problem of Deficition demand and Excess demand.</li> <li>• Government Budgets and the economy</li> <li>• Rural development</li> <li>• Employment</li> <li>• Environment and Sustainable Development</li> </ul>

<b>December</b>	<ul style="list-style-type: none"> <li>• Foreign Exchange Rate</li> <li>• Balance of Payment</li> <li>• Comparative development experience of india and its neighbours.</li> </ul>
<b>January &amp; February</b>	<ul style="list-style-type: none"> <li>• <b>PREBOARD ENTIRE SYLLABSU</b></li> </ul>

<b>Class - 12 Subject - Business Studies</b>	
<b>April &amp; May</b>	<ul style="list-style-type: none"> <li>• Nature and Significance of Management</li> <li>• Principal of Managements.</li> <li>• Business Environment</li> </ul>
<b>PT-1</b>	<ul style="list-style-type: none"> <li>• Nature and Significance of Management</li> <li>• Principal of Managements.</li> <li>• Business Environment</li> </ul>
<b>July &amp; August</b>	<ul style="list-style-type: none"> <li>• Planning</li> <li>• Organising</li> <li>• Staffing</li> </ul>
<b>September</b>	<ul style="list-style-type: none"> <li>• <b>Directing Revision + Half yearly Exams.</b></li> </ul>
<b>Half Yearly exam</b>	<ul style="list-style-type: none"> <li>• Nature and Significance of Management</li> <li>• Principal of Managements</li> <li>• Business Environment</li> <li>• Planning</li> <li>• Organising</li> <li>• Staffing</li> </ul>
<b>October &amp; November</b>	<ul style="list-style-type: none"> <li>• Controlling</li> <li>• Financial Management</li> <li>• Financial Market</li> </ul>
<b>PT-2</b>	<ul style="list-style-type: none"> <li>• Directing</li> <li>• Controlling</li> <li>• Financial Management</li> <li>• Financial market.</li> </ul>
<b>December</b>	<ul style="list-style-type: none"> <li>• Marketing Management</li> <li>• Consumer Protection</li> </ul>
<b>January</b>	<ul style="list-style-type: none"> <li>• <b>PRE BOARD ENTIRE SYLLABUS</b></li> </ul>

**Class - 12 Subject - Political Science**

<b>April &amp; May</b>	<b>Part A:</b> Contemporary World Politics Chapter 1 – End of Bipolarity Chapter 2 – New Centers of Power <b>Part B –</b> Politics in India since Independence Chapter 1 – Challenges of Nation Building Chapter 2 – Planning and Development
<b>P.T – 1</b>	Chapter – Part – A Chapter – 1 & 2 & Part – B Chapter – 1 & 2.
<b>July &amp; August</b>	<b>Part A:</b> Chapter 3 - Contemporary south Asia Chapter 4 –United nations and its Organizations Chapter 5 – Security in Contemporary World <b>Part B:</b> Chapter 3 – India’s Foreign Policy Chapter 4 – Parties and the Party System in India Chapter 5 – Democratic Resurgence <b>Project Work</b> United Nations and its Organizations <b>OR</b> Challenges of Nation Building <b>Map Work</b>
<b>September</b>	Revision + Half Yearly Exams
<b>Half Yearly Exams</b>	Part – 1 Chapter – 1, 2, 3, 4, & 5 & Part- 2 Chapter - 1, 2, 3, 4 & 5.
<b>October &amp; November</b>	<b>Part A</b> Chapter 6 – Environment and Natural Resources Chapter 7 – Globalization <b>Part B</b> Chapter 6 – Regional Aspiration Chapter 7 – Indian Politics: Trends and Developments

**Pre - Board 1 +2**

Entire Syllabus

**Map Work:** Entire Syllabus

**Project Work:**

Globalization

Or

India's Foreign Policy

**Class - 12 Subject - History**

<b>April &amp; May</b>	<b>Part I:</b> Chapter 1 – The Story of the First Cities: Harappan Archeology <b>Part II:</b> Chapter 5 – Medieval Society through Traveler’s Accounts <b>Part III:</b> Chapter 10 – Colonialism and Rural Society Chapter – 11 Rebels and the Raj
<b>P.T – 1</b>	<b>Chapter- 1, 5, 10, 11</b>
<b>July &amp; August</b>	<b>Part I:</b> Chapter -2 Kings Farmers and Towns Chapter – 3 Kinship , Caste and Class <b>Part II:</b> Chapter 6 – Bhakti :- Sufi Traditions Chapter 7 – An Imperial Capital : Vijaynagar <b>Project Work:</b> The Mysteries Behind the mound of Dead – Mohanjo Daro <b>OR</b> Mahatma Gandhi: A Legendary Soul <b>Part III:</b> Chapter 13 – Mahatma Gandhi and the Nationalist Movement Chapter 15 – Farming the Consitution
<b>September</b>	<b>Revision + Half Yearly Exams</b>
<b>Half Yearly exams</b>	Chapter – 1, 2, 3 , 5, 6, 7, 10, 11 , 13 & 15.
<b>October</b>	<b>Part I:</b> Chapter 4 – Thinkers, Beliefs And Buildings <b>Part II:</b> Chapter 8 – Peasants , Zamindars and the State
<b>Pre- Board 1+ 2</b>	Entire Syllabus Map Work – Entire Syllabus <b>Project work:</b> Framing the Constitution [Pre – Board 1] Thinkers, Beliefs and Buildings [ Pre – Board 2]

## Computer Science- Class XII

### 1. Learning Outcomes

Student should be able to

- a) Apply the concept of function.
- b) Explain and use the concept of file handling.
- c) Use basic data structure: Stacks
- d) Explain basics of computer networks.
- e) Use Database concepts, SQL along with connectivity between Python and SQL.

### 2. Distribution of Marks:

Unit No.	Unit Name	Marks	Periods	
			Theory	Practical
I	Computational Thinking and Programming – 2	40	70	50
II	Computer Networks	10	15	...
III	Database Management	20	25	20
	Total	70	110	70

### 3. Unit wise Syllabus

#### Unit I: Computational Thinking and Programming – 2

- Revision of Python topics covered in Class XI.
- Functions: types of function (built-in functions, functions defined in module, userdefined functions), creating user defined function, arguments and parameters, default parameters, positional parameters, function returning value(s), flow of execution, scope of a variable (global scope, local scope)
- Exception Handling: Introduction, handling exceptions using try-except-finally blocks
- Introduction to files, types of files (Text file, Binary file, CSV file), relative and absolute paths
- Text file: opening a text file, text file open modes (r, r+, w, w+, a, a+), closing a text file, opening a file using with clause, writing/appending data to a text file using write() and writelines(), reading from a text file using read(), readline() and readlines(), seek and tell methods, manipulation of data in a text file
- Binary file: basic operations on a binary file: open using file open modes (rb, rb+, wb, wb+, ab, ab+), close a binary file, import pickle module, dump() and load() method, read, write/create, search, append and update operations in a binary file
- CSV file: import csv module, open / close csv file, write into a csv file using writer(), writerow(), writerows() and read from a csv file using reader()
- Data Structure: Stack, operations on stack (push & pop), implementation of stack using list.

## **Unit II: Computer Networks**

- Evolution of networking: introduction to computer networks, evolution of networking (ARPANET, NSFNET, INTERNET)
- Data communication terminologies: concept of communication, components of data communication (sender, receiver, message, communication media, protocols), measuring capacity of communication media (bandwidth, data transfer rate), IP address, switching techniques (Circuit switching, Packet switching)
- Transmission media: Wired communication media (Twisted pair cable, Co-axial cable, Fiber-optic cable), Wireless media (Radio waves, Micro waves, Infrared waves)
- Network devices (Modem, Ethernet card, RJ45, Repeater, Hub, Switch, Router, Gateway, WIFI card)
- Network topologies and Network types: types of networks (PAN, LAN, MAN, WAN), networking topologies (Bus, Star, Tree)
- Network protocol: HTTP, FTP, PPP, SMTP, TCP/IP, POP3, HTTPS, TELNET, VoIP
- Introduction to web services: WWW, Hyper Text Markup Language (HTML), Extensible Markup Language (XML), domain names, URL, website, web browser, web servers, web hosting

## **Unit III: Database Management**

- Database concepts: introduction to database concepts and its need
- Relational data model: relation, attribute, tuple, domain, degree, cardinality, keys (candidate key, primary key, alternate key, foreign key)
- Structured Query Language: introduction, Data Definition Language and Data Manipulation Language, data type (char(n), varchar(n), int, float, date), constraints (notnull, unique, primary key), create database, use database, show databases, drop database, show tables, create table, describe table, alter table (add and remove an attribute, add and remove primary key), drop table, insert, delete, select, operators (mathematical, relational and logical), aliasing, distinct clause, where clause, in, between, order by, meaning of null, is null, is not null, like, update command, delete command, aggregate functions (max, min, avg, sum, count), group by, having clause, joins: cartesian product on two tables, equi-join and natural join
- Interface of python with an SQL database: connecting SQL with Python, performing insert, update, delete queries using cursor, display data by using connect(), cursor(), execute(), commit(), fetchone(), fetchall(), rowcount, creating database connectivity applications, use of %s format specifier or format() to perform queries



#### 4. Practical

S.No	Unit Name	Marks (Total=30)
1	Lab Test: 1. Python program (60% logic + 20% documentation + 20% code quality)	8
	2. SQL queries (4 queries based on one or two tables)	4
2	Report file: <ul style="list-style-type: none"><li>• Minimum 15 Python programs.</li><li>• SQL Queries – Minimum 5 sets using one table / two tables.</li><li>• Minimum 4 programs based on Python -SQL connectivity</li></ul>	7
3	Project (using concepts learnt in Classes 11 and 12)	8
4	Viva voce	3

#### 5. Suggested Practical List:

##### Python Programming

- Read a text file line by line and display each word separated by a #.
- Read a text file and display the number of vowels/consonants/uppercase/lowercase characters in the file.
- Remove all the lines that contain the character 'a' in a file and write it to another file.
- Create a binary file with name and roll number. Search for a given roll number and display the name, if not found display appropriate message.
- Create a binary file with roll number, name and marks. Input a roll number and update the marks.
- Write a random number generator that generates random numbers between 1 and 6 (simulates a dice).
- Write a Python program to implement a stack using list.
- Create a CSV file by entering user-id and password, read and search the password for a given user-id.

##### Database Management

- Create a student table and insert data. Implement the following SQL commands on the student table:
  - o ALTER table to add new attributes / modify data type / drop attribute
  - o UPDATE table to modify data
  - o ORDER BY to display data in ascending / descending order

- o DELETE to remove tuple(s)
- o GROUP BY and find the min, max, sum, count and average
- Similar exercise may be framed for other cases.
- Integrate SQL with Python by importing suitable module.

## **6. Suggested Reading Material**

- NCERT Textbook for COMPUTER SCIENCE (Class XII)
- Support Materials on the CBSE website.

## **7. Project**

The aim of the class project is to create something that is tangible and useful using Python file handling/ Python-SQL connectivity. This should be done in groups of two to three students and should be started by students at least 6 months before the submission deadline. The aim here is to find a real world problem that is worthwhile to solve.

Students are encouraged to visit local businesses and ask them about the problems that they are facing. For example, if a business is finding it hard to create invoices for filing GST claims, then students can do a project that takes the raw data (list of transactions), groups the transactions by category, accounts for the GST tax rates, and creates invoices in the appropriate format. Students can be extremely creative here. They can use a wide variety of Python libraries to create user friendly applications such as games, software for their school, software for their disabled fellow students, and mobile applications, of course to do some of these projects, some additional learning is required; this should be encouraged. Students should know how to teach themselves.

The students should be sensitized to avoid plagiarism and violations of copyright issues while working on projects. Teachers should take necessary measures for this.

## PHYSICAL EDUCATION CURRICULUM

S.No	Terminals	Month	Unit	Chapters/Topic	Worksheet/Assignment Practical
1.	<b>TERM-I</b>	April	Unit-1	CH-1 Management of Sports Events Topic-1.1,1.2 &1.3	Practical-1 Physical Fitness Test and Administrator Volleyball Worksheet & Class Test
2.		May	Unit-2 Unit-3	CH-2 Children and Women in Sports Topic-2.1,2.2 &2.3 CH-3 Yoga as Preventive measure for Lifestyle Disease Topic-3.1,3.2,3.3&3.4	Demonstration of Fitness Activity/Yoga Basketball  Worksheet & Class Test
3.		July	Unit-4 Unit-5	CH-4 Physical Education & Sports for CWSN (Children with Special Needs-Divyang) Topic-4.1,4.2 & 4.3 CH-5 Sports & Nutrition Topic-5.1,5.2&5.3	Viva (From Project File) General Motor Fitness, Cricket Worksheet & Class Test
4.		August	Unit-6 Unit-7	CH-6 Test & Measurement in Sports Topic -6.1,6.2&6.3 CH-7Physiology & Injuries in Sports Topic-7.1,7.2,7.3&7.4	Procedure for Asanas KHO-KHO Worksheet & Class Test
5.		September			Half Yearly Exam and Revision work
6.	<b>TERM- II</b>	October	Unit-8	CH-8 Biomechanics & Sports Topic-8.1,8.2,8.3&8.4	Contraindication for Asans Football Worksheet & Class Test
		November	Unit - 9	Ch- Psychology & Sports	Worksheet & Class Test
		December	Unit - 10	Ch – 10 Training In sports	Worksheet & class Test