## BAGARIA BAL VIDYA NIKETAN
## LAXMANGARH SIKAR
## SYLLABUS & LESSON PLANNER - 2025-2026

| Class | XII |
|---|---|
| Subject | Informatics Practices |
| Teacher Name | Nitin verma |

### Syllabus

| Unit | Name of Book | Name of Chapter | Working Day | Period | Topic | Month | Week |
|---|---|---|---|---|---|---|---|
| Unit 1: | | Data Handling using Pandas -I | 36 | 54 | Introduction to Python libraries- Pandas, Matplotlib. Data structures in Pandas – Series and Data Frames. Series: Creation of Series from – ndarray, dictionary, scalar value; mathematical, operations; Head and Tail functions; Selection, Indexing and Slicing.<br> Data Frames: creation - from dictionary of Series, list of dictionaries, Text/CSV files; display; iteration; Operations on rows and columns: add, select, delete, rename; Head and Tail functions; Indexing using Labels, Boolean Indexing; Importing/Exporting Data between CSV files and Data Frames.<br>Data Visualization- Purpose of plotting; drawing and saving following types of plots using Matplotlib – line plot, bar graph, histogram, Customizing plots: adding label, title, and legend in plots | April & May | 6 |

| Unit | Subject | Chapter | | | Topics | Month | |
|---|---|---|---|---|---|---|---|
| Unit 2: | (IP)Informatics Practices | Database Query using SQL | 38 | 57 | Revision of database concepts and SQL commands covered in class XI Math functions: POWER (), ROUND (), MOD (). Text functions: UCASE ()/UPPER (), LCASE ()/LOWER (), MID ()/SUBSTRING()/SUBSTR (), LENGTH (), LEFT (), RIGHT (), INSTR (), LTRIM (), RTRIM (), TRIM (). Date Functions: NOW (), DATE (), MONTH (), MONTHNAME (), YEAR (), DAY (), DAYNAME (). Aggregate Functions: MAX (), MIN (), AVG (), SUM (), COUNT (); using COUNT (*). Querying and manipulating data using Group by, Having, Order by. Working with two tables using equi-join | June & July | 6 |
| Unit 3 | | Introduction to Computer Networks | 24 | 36 | Introduction to networks, Types of network: PAN, LAN, MAN, WAN. Network Devices: modem, hub, switch, repeater, router, gateway Network Topologies: Star, Bus, Tree, Mesh. Introduction to Internet, URL, WWW, and its applications- Web, email, Chat, VoIP. Website: Introduction, difference between a website and webpage, static vs dynamic, web page, web server and hosting of a website. Web Browsers: Introduction, commonly used browsers, browser settings, add-ons and plug-ins, cookies. | August | 8 |
| Unit 4 | | Societal Impacts | 22 | 33 | Digital footprint, net and communication etiquettes, data protection, intellectual property rights (IPR), plagiarism, licensing and copyright, free and open source software (FOSS), cybercrime and cyber laws, hacking, phishing, cyber bullying, overview of Indian IT Act. E-waste: hazards and management. Awareness about health concerns related to the usage of technology. | Sept. | 4 |
| Syallbus breakup due to exam period & holiday in the month of oct. | | | | | | | |
| Book 1 | Revision and practice test series | Revision and practice test series | 142 | 144 | Revision and practice test series | NOV-DEC-JAN-FEB | 1,2,3,4 |