

SOBTIS PUBLIC SCHOOL
GREEN PARK BAREILLY
ACADEMIC PLANNER (2020-21)

Teacher:-Prasoon Johri

Subject: Computer

Class: XII

| Month | No. of working days | No. of periods | Topic |
|------------------|----------------------------|-----------------------|--|
| February | 24 | 24 | Structure of a network: Types of networks: local area and wide area (web and internet), new technologies such as cloud and IoT, public vs. private cloud, wired and wireless networks; concept of a client and server. Network devices such as a NIC, switch, hub, router, and access point. |
| March | 25 | 25 | Network stack: amplitude and frequency modulation, collision in wireless networks, error checking, and the notion of a MAC address, main idea of routing. |
| April | 21 | 21 | IP addresses: (v4 and v6), routing table, router, DNS, and web URLs, TCP: basic idea of retransmission, and rate modulation when there is congestion (analogy to a road network), Protocols: 2G, 3G, 4G, WiFi. What makes a protocol have a higher bandwidth? |
| May | 25 | 25 | Basic network tools: traceroute, ping, ipconfig, nslookup, whois, speed test. • Application layer: |
| July | 27 | 27 | HTTP (basic idea), working of email, secure communication: encryption and • certificates (HTTPS), network applications: remote desktop, remote login, HTTP, FTP, SCP, SSH, POP/IMAP, SMTP, VoIP, NFC. |
| August | 23 | 23 | Write a minimal Django based web application that parses a GET and POST request, and writes the fields to a file - flat file and CSV file. |
| September | 11 | 11 | Interface Python with an SQL database SQL commands: aggregation functions – having, group by, order by. |
| October | 25 | 25 | Intellectual property rights, plagiarism, digital rights management, and licensing (Creative Commons, GPL and Apache), open source, open data, privacy. Privacy laws, fraud; cyber-crime- phishing, illegal downloads, child pornography, scams; • cyber forensics, IT Act, 2000. |
| November | 8 | 8 | E-waste management: proper disposal of used electronic gadgets. Identity theft, unique ids, and biometrics. Gender and disability issues while teaching and using computers. |