



DELHI PUBLIC SCHOOL (JOKA) SOUTH KOLKATA

COMPUTER SYLLABUS [2023-2024]

CLASS – XI

INFORMATICS PRACTICES (065)

PERIODIC TEST-I	<p>Unit 1:Introduction to computer system</p> <p>Introduction to computer and computing: evolution of computing devices, components of a computer system and their interconnections, Input/output devices. Computer Memory: Units of memory, types of memory – primary and secondary, data deletion, its recovery and related security concerns. Software: purpose and types – system and application software, generic and specific purpose software.</p> <p>Unit 2:Introduction to Python (Up to Control Statements, i.e., Loop)</p> <p>Basics of Python programming, Python interpreter - interactive and script mode, the structure of a program, indentation, identifiers, keywords, constants, variables, types of operators, precedence of operators, data types, mutable and immutable data types, statements, expressions, evaluation and comments, input and output statements, data type conversion, debugging.</p> <p>Control Statements: if-else, if-elif-else, while loop, for loop</p>
MIDTERM EXAMINATION	<p>Theory</p> <ul style="list-style-type: none">• Revision of the syllabus from PERIODIC TEST-I• Python List and Dictionary(from unit 2) <p>Lists: list operations - creating, initializing, traversing and manipulating lists, list methods and built-in functions – len(),list(),append(),insert(), count(),index(), remove(), pop(), reverse(), sort(), min(),max(),sum()</p> <p>Dictionary: concept of key-value pair, creating, initializing, traversing, updating and deleting elements, dictionary methods and built-in functions – dict(), len(), keys(), values(), items(), update(), del(), clear()</p>
PERIODIC TEST-II	<p>Unit 3: Database concepts and the Structured Query Language</p> <p>Database Concepts: Introduction to database concepts and its need, Database Management System. Relational data model: Concept of domain, tuple, relation, candidate key, primary key, alternate key Advantages of using Structured Query Language, Data Definition Language, Data Query Language and Data Manipulation Language,</p> <p>MySQL: Introduction, creating a database using MySQL, Data Types</p> <p>Data Definition: CREATE DATABASE, CREATE TABLE, DROP, ALTER</p> <p>Data Query: SELECT, FROM, WHERE with relational operators, BETWEEN, logical operators, IS NULL, IS NOT NULL Data Manipulation: INSERT, DELETE,UPDATE</p>

<p>ANNUAL</p> <p>EXAMINATION</p>	<ul style="list-style-type: none"> • Theory <p>Unit 4: Introduction to Emerging Trends</p> <p>Artificial Intelligence, Machine Learning, Natural Language Processing, Immersive experience (AR, VR), Robotics, Big data and its characteristics, Internet of Things (IoT), Sensors, Smart cities, Cloud Computing and Cloud Services (SaaS, IaaS, PaaS); Grid Computing, Block chain technology.</p> <p>Syllabus of Mid Term 1 and PT2</p> <ul style="list-style-type: none"> • Practical <ul style="list-style-type: none"> ➤ As per CBSE Board Instructions
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