ST. LAWRENCE HIGH SCHOOL

A Jesuit Christian Minority Institution

27, BALLYGUNGE CIRCULAR ROAD, KOLKATA- 700019

Syllabus planning for the academic year 2021

No. of working days: 60

TERM: FIRST TERM

Subject: COMPUTER SCIENCE   CLASS: XII

TEACHER`S NAME: SOUMAK CHATTERJEE

SECTION: A1, A2, D

MONTH	LESSONS	TOPICS COVERED	HOMEWORK	CLASS WORK
JULY First term starts on 05/07/2021	Introduction to Database HTML Concept of relationships Networking Introduction to Database	1:1, 1:N, N:M relationships, Functional dependency, IP Addressing, Database Constraints, Terms associated with Data Transmission. Components of a network, Network Topologies, LAN protocols, Switching techniques.	Metadata, Use of Modem, Set operations, Client Server Architecture, Parallel Transmission, Serial Transmission. TCP/IP model, IP addressing, Domain name system, Various data models, data dictionary, HTML	Synchronous and Asynchronous transmission modes, Guided media for network transmission, Coaxial Cable, Fibre Optic, Unguided media. Page: 102,103,104. (Rajiv Mathur) Normalisation. Page: 143,144,145.
AUGUST	Relational Algebra Structured Query Language	Union, Cartesian Product, Database Operations, Selection, Projection.	Natural Join and Outer Join Exercise: Page: 218. General Syntax..Question number B.5.	DML, DCL, DQL Commands, 1NF, 2NF, 3NF, BCNF, Use of CREATE, USE, ALTER, DROP, INSERT, SELECT, UPDATE, DELETE. Laboratory copy Topic Discussion
SEPTEMBER First term Examination begins on 16/09/2021	Sequential Logic Circuit	Concept of Synchronous and Asynchronous circuits, Triggering, Flip Flops, Counters.	D, JK, Master Slave Flip Flops: Diagram with Truth tables. Ring counter and Johnson counter diagrams.	SR Flip flops, Decade Counter, Up/Down counter, Ripple counter, SISO, SIPO, PISO, PIPO. Exercise: Page: 25. **Project Topic Discussion**

Teachers are requested to prepare a LESSON PLAN for each Topic to be taught. The Lesson plans are to be submitted along with the monthly planner.

Submitted on: 15.03.2021

Signature of Teacher: Soumak Chatterjee

PRINCIPAL

Academic Coordinator: Jayashree Sherpa 15/3/21

VICE PRINCIPAL 15/3/2021

ST. LAWRENCE HIGH SCHOOL

A Jesuit Christian Minority Institution
27, BALLYGUNGE CIRCULAR ROAD, KOLKATA- 700019

TERM: SECOND TERM

TEACHER`S NAME: SOUMAK CHATTERJEE

Syllabus planning for the academic year 2021

Subject: COMPUTER SCIENCE   **CLASS: XII**

SECTION: A1 , A2 & D

No. of working days: 72

MONTH	LESSONS	TOPICS COVERED	HOMEWORK	CLASS WORK
OCTOBER Second term begins on 1st October	Introduction to Object Oriented Programming **Laboratory copy & Project to be submitted on 25/10/2021**	Implementation of OOPs using C++, Branching and looping in C++.	While loop, For loop, Do-while, Nested Loops, Break statement, Continue statement, Goto statement.	Object, Class, Abstraction, Encapsulation, Inheritance, Polymorphism, Standard Input/ Output Members of a Class, Constructor and Destructor. Exercise: Page: 249.
NOVEMBER	Introduction to Object Oriented Programming Programming in C	Concept of Constructors and Destructors, Pointer variables, Command line arguments, I/O file handling in C.	Program to show how a pointer points to an array, Program to use a malloc() function for assigning memory to array, Program on array of pointers.	Private, Public and Protected Class, Object creation and Accessing members of a class Array of pointers, Pointers and Functions, Pointers and Structures. Exercise:Page:89 [C.2, 10, 11]
DECEMBER	Programming in C	Linked List, Stack using array	Insert a node and delete a node from a linked list.	Operations of Linked list, Stack and Queue. Applications of stack: Postfix notification

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Submitted on: 15.03.2021

Academic Coordinator: *Jayashree Sheupa* 15/3/21

Signature of Teacher: *Soumak chatterjee*

PRINCIPAL

VICE PRINCIPAL

JANUARY	Data Structure & Revision Entire Syllabus Completed	Application of Linked lists, Queue using arrays.	Algorithms for realisation of stack using array.	Prefix notification, Infix to Postfix Conversion, Revision
FEBRUARY **Second** **term exam** **begins on** **17/02/2022**	Revision	Revision	Revision	Revision

Teachers are requested to prepare a LESSON PLAN for each Topic to be taught. The Lesson plans are to be submitted along with the monthly planner.

Submitted on: 15.03.2021

Signature of Teacher: Soumak Chatterjee

PRINCIPAL

Academic Coordinator: Jayshree Sherpa 15/3/21

VICE PRINCIPAL 15/3/2021