# SAINIK SCHOOL NALANDA

## (Holiday Homework)

## Class XI- INFORMATICS PRACTICES NEW(065)

### Unit 1: Programming and Computational Thinking (PCT-1)
➢ Basic computer organisation: describe a computer system and mobile system, CPU, memory,hard disk, I/O, battery, power, transition from a calculator to a computer
➢ Familiarization with the basics of Python programming: a simple "hello world" program, process of writing a program, running it, and print statements; simple data-types: integer, float, string
➢ Introduce the notion of a variable, and methods to manipulate it (concept of L-value and Rvalue )
➢ Knowledge of data types and operators: accepting input from the console, assignment
➢ statement, expressions, operators and their precedence.
➢ Conditional statements: if, if-else, if-elif-else; simple programs: e.g.: absolute value, sort
➢ numbers, divisibility.
➢ Notion of iterative computation and control flow: for, while, flowcharts, decision trees and pseudo code; write a lot of programs: interest calculation, EMI, tax calculation (examples fromGST), standard deviation, correlation

## Class IXB-COMPUTER APPLICATIONS(165)

### Unit 1: Basics of Information Technology
➢ Familiarity with the basics of computers: design of computers, and overview of communication technologies
➢ Computer Systems: characteristics of a computer, components of a computer system – CPU, memory, storage devices and I/O devices
➢ Memory: primary (RAM and ROM) and secondary memory
➢ Storage devices: hard disk, CD ROM, DVD, pen/flash drive, memory stick
➢ I/O devices: keyboard, mouse, monitor, printer, scanner, web camera
➢ Types of software: system software (operating systems), application software, mobile applications
➢ Operating systems: kernel, device drivers, and file systems (very basic idea)
➢ Computer networking: wired/wireless communication, common protocols: Wi-Fi, Bluetooth, cloud computers (private/public)
➢ Multimedia: images, audio, video, animation
➢ Chat sites, and social networks.

### Unit 2: Cyber-safety
➢ Safely browsing the web and using social networks: identity protection, proper usage of passwords, privacy, confidentiality of information, cyber stalking, reporting cybercrimes
➢ Safely accessing websites: viruses and malware

## Class VIIIB-COMPUTER

## (Holiday Homework)

➢ Read, **chapter 1,2 and 3** and write & learn exercise in your notebook.
➢ Write about **Computer Viruses** and basic tags of **HTML**
➢ Teach at least one **old person** how to use / operate computer and mobile.
➢ Bring his/her contact number also.

# SAINIK SCHOOL NALANDA
## SUMMER VACATION HOMEWORK
### Session 2018-19

**Subject: Computer**

## CLASS VI

**ASSIGNMENT 1:** Revise & Complete Ch1 and Ch2 Exercise Questions.

**ASSIGNMENT 2:** Complete the puzzle given on page no -20 of your textbook.

**ASSIGNMENT 3:** Show the conversion of decimal to binary for at least 5 numbers of your choice.

**ASSIGNMENT 4:** Show the conversion of binary to decimal for at least 5 numbers of your choice.

## CLASS VII

**ASSIGNMENT 1:** Revise & Complete Ch1 and Ch2 Exercise Questions.

**ASSIGNMENT 2**: Prepare Collage of different topologies.

**ASSIGNMENT 3:** Write advantages and disadvantages of the followings

(a) Star Topology
(b) Ring Topology
(c) Bus Topology

**ASSIGNMENT 4:** Prepare a chart or Collage on Tags of HTML.

## CLASS VIII-A

**ASSIGNMENT 1:** Revise & Complete Ch1 and Ch2 Exercise Questions.

**ASSIGNMENT 2:** Browse Internet and Prepare notes on Social networking sites and its tools as well as names of ten (10) latest viruses.

**ASSIGNMENT 3**: Browse Internet on wireless Network and Prepare a Collage on different types of wireless networks.

**ASSIGNMENT 4**: Write down advantages and disadvantages associated with each type of topology.

## CLASS IX-A

**ASSIGNMENT 1:** Revise & Complete Ch1 , Ch2  and ch3 Exercise Questions.

**ASSIGNMENT 2**: Solve Application Oriented Problems available on Page no-17 and Page no-18.

**ASSIGNMENT 3:** Difference between RAM and ROM.

**ASSIGNMENT 4:** Solve Application Oriented Problems available on Page no-35,36 and Page no-37.

## CLASS X

**ASSIGNMENT 1:**  Revise & Complete Ch1 and Ch2 Exercise Questions.

**ASSIGNMENT 2:** Solve Application Oriented Problems available on Page no-27 and Page no-28.

**ASSIGNMENT 3:** Solve Application Oriented Problems available on Page no-68 and Page no-69.