SING YIN SECONDARY SCHOOL

Syllabus for Computer and Information Technology - September 2016 / July 2017

FORM FIVE

Objectives:

Students will learn about:
- Information systems and processes in real-life contexts;
- The difference between information and data;
- How data are organized and represented inside a computer;
- The integrated use of office automation software;
- How advances in ICT foster the development of the Information Age and its impact on society.
- The functions and properties of the major components of a computer system and how these components interact together to perform tasks;
- The functions and properties of major peripheral devices, and their use in specific situations;
- The use of different utility programs in managing systems and files;
- The capabilities of different operating system, and the basic concepts of a computer network and its applications;
- How to connect to the Internet, and the hardware, software and Internet Service Provider (ISP) involved in accessing the Internet;

Textbook :   NSS Information and Communication Technology Compulsory 1
               NSS Information and Communication Technology Compulsory 2
               (Longman)

periods allocated

1.   INTRODUCTION TO INFORMATION PROCESSING   7

    A.   Components of an information system
    B.   Distinguish between various information processes
    C.   Difference between data and information
    D.   Different types of data
    E.   Information Age and impact

2.   DATA ORGANISATION AND REPRESENTATION   20

    A.   Control of data.
           - Data verification and data validation
    B.   Electronic data processing
    C.   Mode of operations
    D.   Number systems
    E.   Bit and byte
    F.   Character Coding system

3.   INTEGRATED USE OF COMMON APPLICATION SOFTWARE   35

    A.   Common Features of Application Software
    B.   Word Processor
    C.   Spreadsheets
    D.   Multimedia Presentation Software
    E.   Database Software
    F.   Integrated Use of Application Software

4.   PRESENTATION OF INFORMATION   6

      A.   Different Ways of Present Information
      B.   Using Multimedia Elements in a Presentation
      C.   Merits of using Multimedia Elements
      D.   Creating a Presentation

5.   BAISC MACHINE ORGRANIZATION   20

Hardware of a typical computer system.
      - input and output devices
      - CPU : ALU, ROM, RAM, Bus structures, etc.
      - Backing storage
      - Interface Cards

6.   SYSTEM SOFTWARE   6

      A.   Functions of system software and application software
      B.   Functions of operating system
      C.   Functions of utility programs and driver programs

7.   COMPUTER SYSTEM   9

      A.   Characteristics of different types of computers
      B.   Applications of various computer systems

8.   THE NETWORKING AND INTERNET BASICS   12

      A.   Types of network
      B.   Network Topology
      C.   Means of communication
      D.   Communication software
      E.   Data transmission over Internet

9.   INETERNET SERVICES AND APPLICATIONS   10

      A.   Strategy for searching for specific information
      B.   Identify various types of file formats suitable for web pages
      C.   Various services on the Internet

10.   COURSE WORK GUIDANCE AND CHECKING   5

11.   GENERAL REVISION AND TESTS   5

                                                (27 cycles)

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Signature of Teacher-in-charge: _____   Checked by : _____