



Maharashtra State Board of Secondary & Higher Secondary School, Pune

Department of Computer Science

Subject: Computer Science-II(D9)

Standard: XI

Faculty: Science

Syllabus

XI Computer Science-II(Theory & Practical)

Theory Index

Sr.No.	Unit/Topic	Weightage
1	Chapter 1: Electronic Components	12
2	Chapter 2: Logic Gates and Sequential Circuit	18
3	Chapter 3: Functional Hardware Part Of PC	10
4	Chapter 4: Peripheral Devices	10

Practical Index

Sr. No.	Practical's Name
1	Study of BASIC GATES using TTL or CMOS Chips.
2	Study of UNIVERSAL BLOCKS using IC's 7400,7402.
3	Study of Three State Buffer IC 74125.
4	Study of Square Wave Generator using IC7414.(or IC 401106).
5	Study of Half Adder using Gates.
6	Study of Full Adder using Gates IC 7483.
7	Study of concept of Addressing using Diode Matrix ROM.
8	Study Of Decoder Chip BCD to Decimal using IC 7445.
9	Study of Multiplexer using IC 74154.
10	Study of Input Devices:Keyboard,Mouse.
11	Study of Scanner and Printer.
12	Study of Multimedia –recording a voice,playing AVI file, etc.

Syllabus

Sr. No.	Name of the Topic	Scope of Syllabus
1	Electronic Components	<ul style="list-style-type: none"> • Study of components-Resistor Capacitor, Inductors and Transformers • Semiconductor Components-Diode, Transistor, Zener Diode, LED • Transistor as switch, single stage amplifier • Regulated power supply, Concept of SMPS • Logic families-TTL and CMOS, their Comparative study and input parameters.
2	Logic Gates and Sequential Circuit	<ul style="list-style-type: none"> • Logic gates-study of basic Gates:AND,OR,NOT their truth table.Study of NAND,NOR,EXOR • Sequential Circuits-FLIP FLOP-RS,D, Toggle, JK, Flip-Flop, Shift registers, Counters, Decoder, Multiplexer, De-Multiplexer.
3	Functional Hardware Part Of PC	<ul style="list-style-type: none"> • Study of System board\motherboard layout. • Study of CPU properties with reference to Pentium chip • PC Memory, Types of Memory-Conventional, Extended and expanded, Semiconductor memory its types • Introduction to PC expansion Buses- What is BUS • Interrupts and Direct Memory Access channels • Features of EISA, PCI and USB Buses • What is Controller Video adapter, Floppy disk and Hard Disk Controller.
4	Peripheral Devices	<ul style="list-style-type: none"> • Video-Video Board Characteristics,Resolution and color,Video monitor Characteristics-Dot Pitch, Horizontal Scan Frequency, Multi-Sync • Keyboard-Keyboard Working • Mouse-Types,Scanner,Printer-Their use and types • Modem.Multimedia.