



## CONTENT

Unit	1	:	Introduction	Page
	1.1	:	Computer	- 1
	1.2	:	Hardware & Software	- 2
	1.3	:	Program	- 2
	1.4	:	Overview of PC	- 3
	1.5	:	Process of PC	- 4
	1.6	:	PC Manufacturer	- 5
	1.7	:	Consultantcy	- 6
	1.8	:	Microprocessor	-7
	1.9	:	RAM	-8
	1.10	:	Byte	-9
	1.11	:	Hard Drive	-9
	1.12	:	Monitor	-9

Unit	2	:	The Basic	Page
	2.1	:	CPU	-10
	2.2	:	Usually with CPU	-11
	2.3	:	What is RAM?	-11
	2.4	:	Motherboard	-12
	2.5	:	Casing	-12
	2.6	:	Power Supply	-13
	2.7	:	Hard Drive	-14
	2.8	:	CD-Rom Drive	-14
	2.9	:	Connector	-15
	2.10	:	Firewire Connectors	-18
	2.11	:	Sound Card	-19
	2.12	:	Video Card	-19





2.13	:	Network Card	-20
2.14	:	Keyboard	-21
2.15	:	Mouse	-21
2.16	:	Modem	-21
2.17	:	Printer	-22
2.18	:	Serial Port	-22
2.19	:	Parallel Port	-23

Unit	3	:	Microprocessor	Page
	3.1	:	External Data Bus	-24
	3.2	:	Code & Register	-24
	3.3	:	Clock	-24
	3.4	:	Clock Speed	-25
	3.5	:	System Crystal	-26
	3.6	:	Over Clock, Under Clock	-26
	3.7	:	Early Pentium CPU	-27
	3.8	:	P4 CPU	-27

Unit	4	:	RAM	Page
	4.1	:	Ram	-28
	4.2	:	Random Access	-29
	4.3	:	Bit Byte	-29
	4.4	:	Ram Sticks	-30
	4.5	:	Access Speed	-30
	4.6	:	DDR SDRAM	-30
	4.7	:	DDR RAM	-31
	4.8	:	How much Ram do you need?	-31
	4.8	:	Mixing Speed	-32
	4.9	:	Memory installation	-32





4.10 : Where Can I see how much memory there is? -32

Unit 5	:	Microprocessor	Page
5.1	•	MCC-Memory Controller Chip	-33
5.2	:	Address Bus	-34
5.3	:	Refresh & Wait States	-34
5.4	:	Cache	-35
5.5	:	L1 & L2	-35
5.6	<b>:</b>	SRAM	-36
5.7	· :	One Chip L2 Cache	-36
5.8	3 :	Front Side & Backside Bus	-36
5.9	:	MMX	-37
5.1	.0 :	Pipelines	-37
5.1	1 :	Clock Speed & Multipliers	-37
5.1	2 :	How to voltage the CPU	-39
5.1	.3 :	VRM per CPU	-39
5.1	4 :	Split Voltage	-39

Unit	6	:	BIOS	Page
	6.1	:	Chipset	-40
	6.2	:	Keyboard Controller	-41
	6.3	:	BIOS is basic communication	-41
	6.4	:	CMOS	-43
	6.5	:	About CMOS setup Utility	-43
	6.6	:	Battery	-44
	6.7	:	How ROM Chips have changed	-44
	6.8	:	How Flash ROMS have changed	-45
	6.9	:	NVRAM	-45
	6.10	:	BYOB & Option ROM	-45





-46	About CMOS setup utility	:	6.11
-46	About Standard CMOS setup	:	6.12
-46	POST	:	6.13
-46	BOOT Process	:	6.14

Unit	7	:	Motherboard	Page
	7.1	:	Motherboard	-47
	7.2	:	4 Points of difference in the Motherboard	-48
	7.3	:	Layout	-48
	7.4	•	Chipset	-48
	7.5	:	Expansion Slot	-48
	7.6	:	Components	-48
	7.7	:	Form Factor	-48
	7.8	:	AT Motherboard & ATX Motherboard	-48
	7.9	:	Southbridge	-49
	7.10	:	Super I/O	-49
	7.11	:	Proprietary Motherboards	-49
	7.12	:	Wire cables from the motherboard	-50
	7.13	•	Troubleshooting Motherboard	-50

	:	Hard Disk Drive	Page
(HDD)			
8.1	:	Hard Drive	-51
8.2	:	CHS and Structure	-52
8.3	:	Before Installing The Hard Drive	-52
8.4	:	Installing SATA Hard Drive	-53
8.5	:	Format	-53

Unit 9	:	Power Supply	Page
--------	---	--------------	------





9.1	:	Introduction to Power Supply	-55
9.2	:	Conductor	-55
9.3	:	Volt (V)	-55
9.4	:	AMP (A)	-56
9.5	:	Watts (W)	-56
9.6	:	Ohm	-56
9.7	:	Fuses	-56
9.8	:	Ground Wire	-57
9.9	:	AC & DC	-57
9.10	:	About the Power Supply	-57
9.11	:	About IEC 320	-58
9.12	:	How to power an ATX motherboard	-58
9.13	:	Common Problems with Power Supply	-58
9.14	:	UPS	-59

Unit	10	:	CD & DVD	Page
	10.1	:	Introduction to CD & DVD	-60
	10.2	:	CD ROM	-61
	10.3	:	CD ROM	-61
	10.4	:	CD-R	-61
	10.5	:	CD-RW	-62
	10.6	:	DVD	-63

Unit	11	:	Video & Monitor	Page
	11.1	:	Monitor & Display Adapter	-65
	11.2	:	CRT Monitor	-65
	11.3	:	Refresh Rate	-65
	11.4	:	Phosphor & Shadow Mask	-66
	11.5	:	Pixel	-66





11.6	:	Resolution	-66
11.7	:	Dot Pitch	-67
11.8	:	Bandwidth	-67
11.9	:	LCD Monitor	-67
11.10	:	The Video Card	-67
11.11	:	VGA	-68
11.12	:	HDMI	-69

Unit	12	:	Sound Card	Page
	12.1	:	Sound Card	-69
	12.2	:	Recording	-71
	12.3	:	Sampling Rate	-71
	12.4	:	Different Sounds	-71
	12.5	:	Amplitude	-72
	12.6	:	Frequency	-72
	12.7	:	Timber	-72
	12.8	:	About Bit Depth	-72
	12.9	:	Sound Format (Wav & MP3)	-72
	12.10	:	About Other Format	-73
	12.11	:	MIDI	-73
	12.12	:	Sound Card Processor	-74
	12.13	:	Speaker	-74
	12.14	:	Audio Cable	-74

	Unit	13	:	OS (Operating System)	Page
•		13.1	:	What is OS?	-76
		13.2	:	Why we use OS?	-76
		13.3	:	Common Desktop OS?	-77
		13.4	:	Microsoft Windows	-77





Unit	14	:	Installing & Upgrading Windows	Page
	14.1	:	Installing & Upgrading Windows	-79
	14.2	:	Explain Install & Upgrade Requirement	-80
	14.3	:	Wins 11 Free License Install Step by Step	-82