

## LAPTOP LEVEL-1 SYLLABUS

SESSION	DESCRIPTION	CLASS
<b>WEEK -1</b>		
1	<p style="text-align: center;"><b><u>Basic electronics</u></b></p> <p><b><u>introduction</u></b>            what is difference between electrical and electronics            What is current and volt?            What is difference between AC and DC? AC current/volt-DC current /volt            Difference between normal electronics and SMT electronics            What is multimeter? How use multimeter?</p>	PRACTICAL
2	<p><b><u>RESISTOR</u></b>            What is resistor and its working function?            Types of resistor            Resistor colour coding            Difference between normal resistor and SMT resistor            How find smd resistor value? And its checking method</p>	PRACTICAL
	<p><b><u>CAPACITOR</u></b>            What is capacitor and its working function?            Types of capacitor            Difference between normal capacitor and SMT capacitor            How find capacitor value? And its checking method</p>	PRACTICAL
	<b><u>Student soldering practical-resistor and capacitor</u></b>	
3	<p><b><u>INDUCTOR AND TRANSFORMER</u></b>            What is inductor and its working function?            Types of inductor            Inductor checking method            What is transformer and its working function?            Types of transformer            transformer checking method</p>	PRACTICAL
4	<p><b><u>DIODE</u></b>            What is diode and its working function?</p>	PRACTICAL

	Types of diode Difference between normal diode and SMT diode diode checking method	
5	<b><u>TRANSISTOR</u></b> What is transistor and its working function? Types of transistor-mosfet,Fet,PNP and NPN Difference between normal transistor and SMT transistor transistor checking method	
6	<b><u>Students soldering practice</u></b> Mosfet and diode	PRACTICAL
7	<b><u>Integrated circuits [IC]</u></b> What is ic ? and its working function? Types of ic Various packages of ic Smd double side ic removing and fixing by using SMD REWORK STATION Smd four side ic removing and fixing by using SMD REWORK STATION	PRACTICAL
<b>WEEK-2</b>		
8	<b>INTRODUCTION</b> What is laptop? How work laptop? What is different between laptop and desktop? Various laptop manufacturer list	Tips
9	<b>LAPTOP SERVICE TOOLS</b> Tools and testing equipment of laptop	
10	<b>SPECIFICATION OF LAPTOP</b> Laptop service manual -explain	
11	Laptop disassembling and assembling practical-1	PRACTICAL
12	Laptop disassembling and assembling practical-2	PRACTICAL
13	Laptop disassembling and assembling practical-3	PRACTICAL
<b>WEEK-3</b>		
14	<b><u>Laptop hardware parts</u></b> <b>BATTERY</b> What is battery? And how work battery?	PRACTICAL

	Types of battery? How increases battery life? Battery voltage and current rating Battery voltage checking method	
15	<b>AC ADAPTER</b> What is adapter and how work adapter? Various types of adpater How check adpater voltage? Adapter general troubleshooting method What is universal adapter and how It use?	
16	<b>RAM</b> What is RAM? Types of RAM? What is different between DDR1 and DDR2 and DDR 3 ram? Ram clock speed list RAM troubleshooting	PRACTICAL
17	<b>HARD DISK</b> What is hard disk? Types of hard disk What is different between sata and ide hard disk? How use SATA to USB converter? Hard disk general maintenance tips	PRACTICAL
18	<b>LAPTOP CPU</b> What is cpu and its types? Various types of cpu socket What is different between 32 bit and 64 bit processor What is Differnat between dual core and quad core How reduce cpu over heat? How check cpu cooler fan?	PRACTICAL
<b><u>WEEK-4</u></b>		
19	<b>KEYBOARD AND TOUCHPAD</b> Keyboard and touch pad problem and its solution	TIPS
20	<b>LCD SCREEN</b> What is LCD and how work LCD? Lcd parts identification How changes lcd hinges and left/right bracket set?	PRACTICAL

	How replace lcd signal cable?	
21	<b>LCD BACKLIGHT</b> What difference between LCD backlight and LED backlight? How check LCD backlight by universal inverter? How check LED backlight?	PRACTICAL
22	<b>LAPTOP INTERNAL SPEAKER</b> No sound signal troubleshooting How check speaker by using digital multimeter?	PRACTICAL
23	Laptop motherboard block diagram –explain	TIPS
24	Trouble shooting for laptop	TIPS