

### Mobile Repairing

<u>Name</u>	:-	<b>Mobile Repairing</b>
<u>Entry Qualification</u>	:-	<b>8<sup>th</sup> pass with age at least 14 yrs.</b>
<u>Duration</u>	:-	<b>12 Weeks</b>
<u>Terminal Competency</u>	:-	<b>Candidate will be able to repair 2G and 3G Mobile Sets.</b>

#### **Contents:-**

<b>S.No.</b>	<b>Practical Competencies</b>	<b>Underpinning Knowledge ( Theory)</b>
1	i) Electrical and Personal safety, danger and Preventions.	Practice Procedures for safety and health hazards measures.
2	i) Identify various components ii) Identify various tools and equipments	Knowledge of Basic Electricity and Basic electronics. Basic idea of signal , signal transmission, signal receiving.
3	i) Block diagram of mobile set and function of each block. ii) Identify various keys and their uses. iii) Identify various components used in mobiles set and their function.	Introduction to various types of mobiles handsets, their description features, how to use these features.
4	Replace faulty pars with new parts of mobile phone that can be done without use of soldering	Fault finding and trouble shooting
5	Test the battery and battery charger with multimeter	Identify the components used in cell phone
6	Testing of Mic, Speaker and vibrator	Function of Mic, speaker and vibrator
7	Soldering and de soldering of various SMD components and select suitable temperature for use	SMD soldering methods.
8	Soldering and de soldering of BGA Ics.	Identify BGA Ics
9	Check track continuity and use jumpers for track problems	Identify various blocks and their functions.
10	Apply proper flux and cleaning the cell phone	Use of various solders, flux and cleaning agents.
11	Test and rectify the problems in antenna and antenna switch	Use of antenna and antenna switch.
12	Identify the fault and test the display interface circuits.	Functions of display, CPU, memory
13	Try to Unlock and lock various function	Various locks used in cell phone
14	Identify the faults of Network section and voice section and rectify them.	Function of the IF section, COBBA section and PA section. Complete knowledge of Block Diagram, circuit diagram, i.e. Power section On/Off circuit Net section

		Charging Section Software Section
15	Rectify the faults related to SIM and SIM connector	SIM and SIM related problems of GSM & CDMA phones.
16	Rectify the faults in camera and camera interface circuits	Use of computer for cell phone servicing-cell phone software
17	Identify and rectify the faults in Bluetooth circuits Use of anti-static mats	Camera phones its constructional details and working . Bluetooth and other wireless circuits
18	Complete hardware and software knowledge of PDA and multimedia handsets. Window based handsets.	Knowledge of downloading of add-on software, ring tones, wall papers, themes etc on non- multimedia and multimedia handsets, window based handsets.

**List of Tools / Resources ( for a batch of 20 students) :-**

- |     |  |   |         |
|-----|--|---|---------|
| 1.  | Soldering station 6V/10W                             | - | 10 nos. |
| 2.  | SMD rework station                                   | - | 10 nos. |
| 3.  | Twisers ( assorted size and shapes)                  | - | 10 nos. |
| 4.  | PVC clamp  | - | 10 nos. |
| 5.  | Magnifying Lens with illumination                    | - | 05 nos. |
| 6.  | BGA Soldering Kit                                    | - | 10 nos. |
| 7.  | Multi meter ( Digital)                               | - | 04 nos. |
| 8.  | Anti- Static Pad                                     |   |         |
| 9.  | Screw Drivers ( assorted size and shapes)            |   |         |
| 10. | Computer with flashing unit                          | - | 05 nos. |
| 11. | Software compatible with different types of Handsets |   |         |