



Gujarat Council of Vocational Training Gandhinagar



1. Name of Course: **Repair and Maintenance of Cellular Phone for Persons with Disability**

N.C.O. No. for Skills Covered:
(Please refer National Classification of
Occupations -2004 available
on www.dget.nic.in)

2. Engineering OR Non-engineering: Non-engineering

3. No. of students per batch: 10

4. Duration in Hours. : 180Hours

5. Duration in Month: 3@ 05 hours/Week.

Duration in Month: 3@ 10 hours/Week.

5. Examination Scheme:

No.	Name of Subject	Teaching Hours during full course.	Maximum Marks. (Excluding Sessional)	Minimum Marks required for Passing (Excluding Sessional).	Sessional Marks if any.
Subject-1	Theory	60	100 50	40 20	
Subject-2	Practical	120	200 150	120 90	

7. Entry qualification for Trainee:

Minimum entry qualification (Essential):	5 th Std.
Desirable:	Person should have basic knowledge of cellular operating

3. Minimum qualification for Trainer:

Minimum qualification (Essential):	Diploma in Electronics
Desirable:	Diploma in Electronics

* Persons with Low Vision should be given 30 minutes more than the prescribed time and writer should be provided during examination.



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2. Syllabus Committee Members:

Sr. No.	Name	Organization	Designation	Technical Qualification	Experience in Years	Signature
1	Mr. Dhaval Sheth	Blind People's Association	Jr. Clerk	Diploma in Electronics	18 Yrs	
2	Dr. Bhushan Punani	Blind People's Association	Executive Director	PGDM, PhD	33 Yrs	
3	Mr. G. B. Jadeja	ITI Saraspur	Principal Class-I	DME, DEE, PDPE	28 Yrs	
4	Mr. Harish Panchal	Blind People's Association	Director of Trainings	Mechanical Engineer	37 Yrs	
5	Mrs. Nandini Rawal	Blind People's Association	Project Director	MBA	31 Yrs	
6	Mr. Vimal Gajera	Blind People's Association	Computer Engineer	B.A. Hardware Networking	8 yrs	
7	Mr. Vijay Dhameliya	Blind People's Association	Computer Engineer	B.A. Hardware Networking	5 Yrs	

Terminal Competency: Candidate will be able to repair 2G & 3G cell phones

Practical Competencies	Underpinning Knowledge (Theory)
Practice procedures for safety and health hazards measures	Electrical and personal safety, dangers and preventions
Operation and setting of cell phone	Introduction to various types of mobile handsets, their description, features & how to use these features. Identify the keys and their uses.
Identify various components of mobile handsets	Explaining of various features of mobile phones and methods of using the same.
Replace faulty parts with new parts of mobiles phone that can be done without use of soldering	Fault finding and trouble shooting
Test the battery and battery charger with millimeter.	Identify the components used in a cell phone
Testing of Mic., Speaker and Vibrator	Function of Mic., Speaker and Vibrator
Soldering and desoldering of various SMD components and select suitable temperature for use.	SMD soldering methods
Soldering and desoldering of BGA Ics.	Identify BGA Ics.



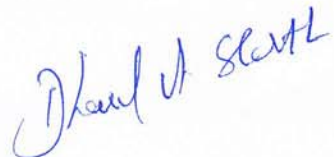
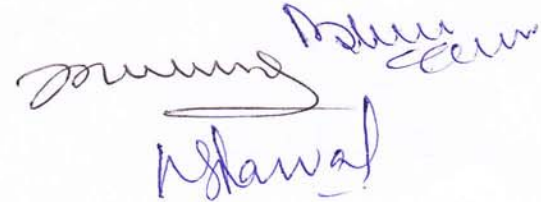
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Check track continuity and use jumpers for track problems.	Identify various blocks and their functions.
Apply proper flux and cleaning the cell phone	Use of various solders, flux and cleaning agents.
Test and rectify the problems in antenna and antenna switch	Use of antenna and antenna switch
Identify the fault and test the display interface circuits.	Functions of display, CPU, Memory
Unlock and lock various functions	Various locks used in cell phone
Identify the faults of Network section and voice section and rectify them.	Functions 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
Rectify the faults related to SIM and SIM Connector	SIM and SIM related problems of GSM & CDMA Phones.
Rectify the faults in Camera and Camera interface circuits	Use of computer for cell phone servicing – cell phone software
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 Flashing and its need-precautions to be taken while flashing.
Complete hardware and software knowledge of PDA and multimedia handsets, Windows based handsets	Knowledge of downloading of add-on software, ring tones, wall papers, themes etc. on non-multimedia and multimedia handsets, windows based handsets.





**Gujarat Council of Vocational Training
Gandhinagar**



11. Approximate cost of Tools
/ Equipments / Machinery for
starting one batch of the course:

Rupees 1, 53,000

Reference Year -
2012

12. Area required for practical / Workshop for one batch.

20 Sq. Meter

13. Minimum Power connection

2 K.W.

14.1 No of items in Standard list of Machinery:

14.1.1. Page NO 5 TO 5

1 (Sr. No. 01 to 01)

14.2 No of items in Standard list of Shop outfit:

14.2.1. Page NO 5 TO 5

10 (Sr. No. 02 to 11)

14.3 No of items in Standard list of Trainee Toll-Kit:

14.1.1 Page NO 5 TO 5

7 (Sr. No. 12 to 18)

***** FOR OFFICIAL USE *****

Approved by GCVT in Governing Body meeting on :

07-06-2012

Syllabus implemented w.e.f. admission session :

Next session

Revision History :

1. Revision No..... Revision Date.

2. Revision No..... Revision Date.

3. Revision No..... Revision Date.

Charan A. Shah
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Standard List of Raw Materials
for Trade of Repair and Maintenance of Cellular Phone for Persons with Disability

LIST OF TOOLS AND MATERIALS

Sr. No.	Description	Qty. (piece)
1	Computer with Flashing Unit	1
2	SMD Network station	1
3	BGA soldering Kit	2
4	Instructor Table	1
5	Instructor Chair	1
6	Computer Table	1
7	Trainee Locker	1
8	Glass Writing Board	1
9	Work Bench	2
10	Stools	10
11	Store well Cupboard	1
12	Soldering Station 6V/10W	10
13	Different types of mobile instruments for repairing	5
14	Magnifying lens with illumination	10
15	Tweezers (assorted size & shapes)	10
16	Multi-meter (digital)	2
17	Anti-static Pad	10
18	Screw drivers assorted size and 4shapes (TROX) for cell phones	10

(As many sheets as required should be used to accommodate all items)

Financial Outlay (Budget)

S.N.	Item	Amount	Working	Details
1	Tools and Instruments and furniture & fixture	1,53,000	As per Table	Non-recurring
	Grand Total	1,53,000		

Shardul K. Sarda

DTZ

governer

Shankar

Ushawat

