

MAHARASHTRA STATE BOARD OF VOCATIONAL EDUCATION EXAMINATION, MUMBAI -51

1	Name of Syllabus	C. C. In CLOCK AND WATCH REPAIRING (303105)																																									
2	Max. No's of Student	Students																																									
3	Duration	6 Month																																									
4	Type	Part Time																																									
5	No's Of Days / Week	6 Days																																									
6	No's Of Hours /Days	4 Hrs																																									
7	Space Required	Workshop = 200 Sq feet Class Room = 200 Sq feet TOTAL = 400 Sq feet																																									
8	Entry Qualification	S. S. C. Appeared																																									
9	Objective Of Syllabus/ introduction	1)Trainee should be well conversant with the mechanism of wrist Watches, Wall Clocks, Time-pieces, and Quartz. 2) The candidate should be able to detect the fault. 3)He should be able to rectify the fault by way of replacing required parts or refitting them with minor repairs. 4)He should know the manufacturing processes of important parts.																																									
10	Employment Opportunity	1. Mechanical & Quartz- repairing of Wall Clocks, Time Pieces, Pocket and Stop Watches, Ladies and Gents Wrist Watches and Automatic watches.																																									
11	Teacher's Qualification	1) N.C.V.T. Passed in Watch & Clock Making with 3 years Experience. <u>OR</u> S.S.C. passed with Mechanic Watch and Clock course completed at any Govt. Recognized Institute with 5 years experience.																																									
12	Training System	<table><tr><th colspan="8">Training System Per Week</th></tr><tr><td colspan="2">Theory</td><td colspan="2">Practical</td><td colspan="4">Total</td></tr><tr><td colspan="2">6 Hours</td><td colspan="2">18 Hours</td><td colspan="4">24 Hours</td></tr></table>							Training System Per Week								Theory		Practical		Total				6 Hours		18 Hours		24 Hours														
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13	Exam. System	<table><tr><th>Sr. No.</th><th>Paper Code</th><th>Name of Subject</th><th>TH/PR</th><th>Hours</th><th>Max. Marks</th><th>Min. Marks</th></tr><tr><td>1</td><td>30310511</td><td>Clock & Watch Repairing</td><td>TH-I</td><td>3 hrs</td><td>100</td><td>35</td></tr><tr><td>2</td><td>30310521</td><td>Fault finding & Repairing</td><td>PR-I</td><td>3 hrs</td><td>100</td><td>50</td></tr><tr><td>3</td><td>30310522</td><td>Overhauling of clock</td><td>PR-II</td><td>6 hrs</td><td>200</td><td>100</td></tr><tr><td></td><td></td><td>Total</td><td></td><td></td><td>400</td><td>185</td></tr></table>							Sr. No.	Paper Code	Name of Subject	TH/PR	Hours	Max. Marks	Min. Marks	1	30310511	Clock & Watch Repairing	TH-I	3 hrs	100	35	2	30310521	Fault finding & Repairing	PR-I	3 hrs	100	50	3	30310522	Overhauling of clock	PR-II	6 hrs	200	100			Total			400	185
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Syllabus :- C.C. IN CLOCK AND WATCH REPAIRING
THEORY PAPER – I - CLOCK & WATCH REPAIRING

Sr No	Topics Name
1	Troubles Shooting before dismantling each of the watch / clock.
2	The way of dismantling each of the watch / clock.
3	Repairing of each and every defective part of each watch/ clock before over hauling.
4	How to over haul a watch or a clock and detailed information of materials to be used.
5	Over-hauling machines – Use and its performance.
6	Oiling the mechanism of every watch / clock.
7	How to bring the mechanism in clock In beat position.
8	How to set a correct time of every mechanism. No

PRACTICAL - I - Fault finding & Repairing

Sr No	Topics Name
1	Trouble shooting of each and every type of wall clock, time-pieces, pocket watches, wrist watch etc., before dismantling.
2	Dismantling of each and every type of above clocks and watches.
3	Repairing of each and every effected part and make it in good condition.
	PRACTICAL - 2 - Overhauling of clocks
4	Overhauling of each and every type of above clocks and watches.
5	Assembling of every type of watch or clock.
6	Set the assembled unit in ‘in-beat’ position.
7	Checking of timing and make it ready for delivery.
8	Maintenance of repair kit

Project Report

The project Report for starting his own Enterprises/ Venture/Business should be prepared by each student

LIST OF TOOLS AND EQUIPMENTS :

Sr. No.	Description of Equipments	No. Required
1.	Striking clock	12
2.	Non-striking clock	12
3.	Time Piece	12
4.	Pocket watch	05
5.	Stop watch	02
6.	Gents / Ladies wrist watch	12
7.	Gents / Ladies Automatic Wrist watches.	12
8.	Quartz Wall Clock	06
9.	Quartz Analog Wrist watch.	03
10.	Musical / chiming quartz wall clock	02
11.	Calculator Wrist Watch	02
12.	Musical Quartz wrist watch	02
13.	Solar Quartz wrist watch	02
14.	Solar Quartz calculator watch	02

LIST OF TOOLS

Sr. No.	Description of Tools / Equipments	No. Required
1.	Punch Box of 120 Punches	1 Box
2.	Pinvice 1 Mouth/ 4 Mouth	04
3.	Twissers Brass, Steel, Hair spring.	25 x each
4.	Eye Glass 3½” size	04
5.	Hammer – Watch Maker	04
6.	Screw Driver set of 6x for Watch Maker	04
7.	Air Blower	02
8.	Over Hauling Machine	01
9.	Buffing and Grinding Machine	01
10.	Philip Head Screw Driver set	04
11.	Alluminium Trays	04
12.	Emery strips or 3 nos. set	04
13.	Nylon Brush	04
14.	Peg Wood	Bundle of 06
15.	Pith wood	-“-
16.	Poising Tool	02
17.	Calibers	04
18.	Balance Spring Vibrating Tool	01
19.	Alluminium Boxes	04
20.	Pliers	04
21.	Cutter	04
22.	Universal opener	04
23.	Case Holder	04
24.	Movement Holder	04
25.	Glass Removing Machine	02

26.	Hand Setter	02
27.	Glass Removing Machine	02
28.	Magnetic eraser	01
29.	Quartz Watch Tester of 2 types	1 each
30.	Watch Maker's lathe	01
31.	Pivot Polishing Machine	01
32.	Cleaning Solution)	
33.	White Petrol)	
34.	Clock Oil)	As per requirement
35.	White Oil)	
36.	Oil Pot	02
37.	Oilier	02

Furniture items :	Staff Stools	25 Nos.
	Table	Sufficient for a batch of 25.
	Rakes	- 2 Nos.

Reference-Books

: Book on Watch Repairing-Mechanical in Marathi and Hindi. By Shri. Khandekar

1. A Book Quartz watch Repairing.
2. Transparencies in picturesque History of clock and watches.
3. Wooden Escapement models.
4. Working Escapement Models.
5. Exploded view of mech. / Quartz Watches.
6. Trouble shooting, chart for Quartz and Mech. Watches.
7. Battery Chart.
8. Institute should have collection of variety of clocks / Time piece / Watch models to clarify the developments of the mechanism.
