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# PRACTICAL Grade-II WITH ASI(R) TO SI(R) TECH COURSE

1. Battery Charger & Battery Charging.
2. Fault finding & remedy of Battery Charger.
3. Switch Mode Power Supply (SMPS).
4. Fault finding & remedy of SMPS.
5. Solar System – Auto switch/PCB/MPPT charge controller/Intelligent charge controller, BTY charging system
6. To design & fabricate basic logic gates & verify truth tables.
7. To build universal gates & verify its truth table.
8. To build half adder using logic IC & verify Truth Table.
9. To build Full Adder & verify T/T
10. Measuring Instrument & Features
  - i. RF Output Meter
  - ii. Signal Generator
  - iii. Service Monitor (Radio Test Set Meter)
  - iv. Frequency Counter
  - v. Standing Wave Ratio Meter
  - vi. AC milivolt meter
  - vii. Audio Output Meter
11. To study of Operational Amplifier (Opamp) with IC-4558 use in Motorola GM300.
12. Measuring radio Parameters.
13. To study the specification of a HF Rx & Tx.
14. To study the specification of VHF 20 Watt Radio Sets.
15. Fault finding of HF Radio Sets.
16. To trace & study the ckts. of VHF (GM300 ,GM338 & GP328\338), TK2170, TK7160
17. Installation of 60 ft. and 80 ft. Mast for V.H.F Antenna
18. Installation Temporary V H F/ HF Radio Set for V.I.P/V.V.I.P duty.
19. VHF Networking.
20. Frequency programming in Radio Set.
21. Study of Repeater.
22. Study the connectivity of patch/Universal unit with Motorola set
23. Fabrication of Patch Unit/Universal patch unit Repeater.
24. Repeater Station installation.
25. Installation, Operation & configuration of IDT System.
26. To locate line of sight using Radio Mobile Software.
27. To study working of GPS.
28. Introduction, Operation & Visit to Polnet, Radio Trunking, DIAL100, AVLS, CCTV, Control Room.
29. RT ETIQUETTE
  - Dictation & Hand Writing improvement
  - RT Talk & Etiquette
  - Communication Skills
30. To study the installation of new VSAT.

### Computer Practical-

Fundamental of Computer, Windows, Hardware / Software installation, Hindi/English Typing, MS Word, Excel, Power Point, email-internet, Bulk SMS, Skype, Configuration of Internet, Printers

## Examination Chart of Second Grade ASI(R) TO SI(R) Tech. Course

S.NO	SUBJECT	CHAPTER NO	MARKS
1	Workshop Practical-I Paper	Schedule - 4,5,11,19,21,22,23,25,26,27	100 Marks (Practical 75, Viva25)
2	Workshop Practical-II Paper	Schedule- 12,13,15,16,20	100 Marks (Practical 75, Viva 25)
3	Computer Practical	Fundamental of Computer, Windows, Hardware / Software installation, Hindi/English Typing, MS Word, Excel, Power Point, email-internet, Bulk SMS, Skype, Configuration of Internet, Printers	(100 Marks) Ms word Hindi/ English Typing 30 Marks Ms excel 20 Marks Powerpoint 20 Marks Viva 30 Marks
		Total	300 Marks

APPROVED BY DGP MP

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*[Signature]*

I.G. OF POLICE (TC)  
M.P. BHOPAL.