

## *Preface*

The modern examination pattern of all the academical and technical institutions is changing day by day. Now, most of the question papers are based on objective type questions so that it can be judged that a student/trainee has studied the entire syllabus deeply or not. NCVT has already introduced objective type question papers in the trades of 'Turner' and 'Machinist' since 1999. The same pattern is going to be extended upto Electrician trade also. Therefore, new pattern books based on objective type questions are required to fulfill the incoming needs.

Presently, the theory question papers of Turner and Machinist trades comprise 70% objective type questions and 30% descriptive type questions. The objective questions are categorised into the following main types :

1. Short answer type questions
2. Multiple choice type questions
3. Fill in the blanks type questions
4. True/False type questions
5. Matching type questions

Though, there is no limit of the number of questions which can be asked in a question paper, even though, I have given sufficient number of questions of all the above stated types so as to cover the maximum portion of Electrical theory. I hope that this effort will prove itself to be useful for trainees, students and candidates appearing in various examinations.

All suggestions for the improvement of the book will be given proper regards.

— K. Mehta

# Contents

1. Hand Tools	1-13
2. Precautions, Fuse and Earthing	14-19
3. Basic Electricity	20-28
4. Ohm's Law, Series & Parallel Combinations of Resistors	29-35
5. Work, Power and Energy	36-38
6. Primary and Secondary Cells	39-60
7. Magnetism and Electromagnetism	61-69
8. Electromagnetic Induction	70-85
9. D.C. Generator	86-94
10. D.C. Motors	95-111
11. Alternating Current	112-124
12. Capacitance	125-137
13. Wiring	138-147
14. Domestic Electrical Appliances	148-160
15. D.C. Armature Re-Winding	161-177
16. 3- $\phi$ Induction Motors	178-208
17. 3-Phase Motor Re-winding	209-228
18. Single Phase Motors	229-246
19. Single Phase Motor Rewinding	247-282
20. Transformer	283-299
21. Measuring Instruments	300-309
22. Illumination	310-330
23. Rectifiers and Converters	331-343
24. Basic Electronics	344-369
25. Test Paper Questions	370-383
Answers	384-396