

# INDEX

UNIT NUMBER	TITLE	PAGE NUMBER
1.	Tools 1.1 Introduction 1.2 Holding tools 1.3 Hammers 1.4 Screwdriver 1.5 Pincer 1.6 Files 1.7 Hack-saws 1.8 Saws 1.9 Spanners 1.10 Scriber 1.11 Boring tools 1.12 Pliers	01 - 14
2.	Instruments 2.1 Introduction 2.2 Ammeter 2.3 Voltmeter 2.4 Ohmmeter 2.5 Multi-meter 2.6 Wattmeter 2.7 Phase sequence indicator 2.8 Megger 2.9 Growler	15 - 24
3.	Insulating Materials 3.1 Organic Dielectrics 3.1.1 Petroleum oils 3.1.2 Synthetic liquid Dielectrics 3.1.3 Polymers 3.1.4 Fibrous Insulating Materials 3.1.5 Plastic Insulating Materials 3.1.6 Rubber Insulating materials 3.2 Inorganic Dielectrics 3.2.1 Mineral Insulating Materials 3.2.2 Glass Insulating Materials 3.2.3 Porcelain Insulating Materials	25 - 42
4.	D. C. Motors 4.1 Introduction 4.2 Construction of D.C. Motor 4.3 Principle of operation 4.4 Types of D.C. Motors 4.5 Speed control of D.C.Motors 4.6 Reversal of direction of rotation in D.C. Motors 4.7 D.C. Motor starters 4.8 Winding Details	43 - 86

<b>UNIT NUMBER</b>	<b>TITLE</b>	<b>PAGE NUMBER</b>
	4.9 Materials required for armature winding 4.10 Preliminary Tests 4.11 Final Tests 4.12 Faults in D.C. Motor 4.13 Maintenance of D.C. Motor	
5.	Single Phase A. C. Motors	87 - 110
	5.1 A. C. Fundamentals 5.2 Types of a single phase A.C. motors 5.3 Construction 5.4 Principle of working 5.5 Split phase resistance starts motor 5.6 Split phase capacitor motor 5.7 Shaded pole motor 5.8 Reluctance motor. 5.9 Hysteresis motor 5.10 Repulsion motor 5.11 Repulsion induction motor 5.12 A.C series motor 5.13 Testing of motors 5.14 Trouble shooting and repair 5.15 Maintenance of motors	
6.	Repairing	111 - 140
	6.1 Introduction 6.2 Repair Process 6.3 Inspection and Determination of Defects 6.4 Dismantling & Determination of Defects 6.5 Bearing Dismantling 6.6 Machine Assembly Procedure 6.7 Repair of Bearings 6.8 Endshield Repair 6.9 Slip Ring & Commutator Repair 6.10 Rotor & Armature Balancing 6.11 Winding Insulation & Joining Methods 6.12 Applying Bindings To Rotors & Armatures	