

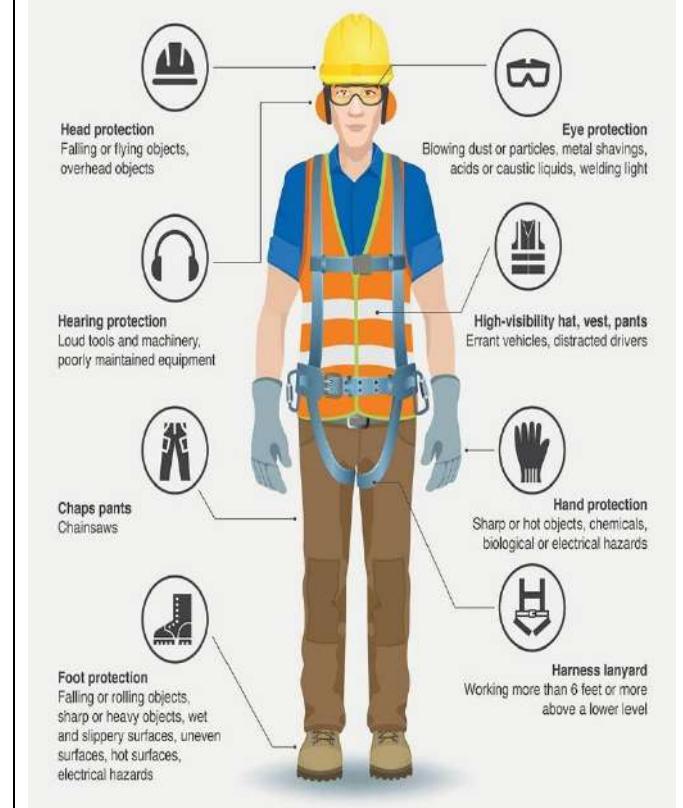


SHUBHANKARI PRIVATE INDUSTRIAL TRAINING INSTITUTE, KAKDWIP

MASTER TEACHING PLAN

TRADE : ELECTRICIAN	TYPE OF CLASS: THEORY	1ST YEAR CLASS NO:1
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MAIN TOPIC / CHAPTER: OCCUPATIONAL SAFETY AND HEALTH (NSQF LEVEL – 5)	NO OF CLASS IN THIS MAIN TOPIC / CHAPTER:4
SUB TOPIC : SAFETY	1ST CLASS OF THE MAIN TOPIC
DURATION OF CLASS: 1 HOUR 20 MINTS	NCVT MAIN TOPIC WEEK NO-1

KEY POINTS & DESCRIPTION (AT LEAST 10 NOS PER CLASS)	EXAMPLE / INDUSTRY EXAMPLE	PHOTO / VIDEO / PRESENTATION/ WALL CHART
1) Basic safety introduction		
2) Classification of safety	General safety, Personal safety, Machine safety	
3) Personal protection		
4) basic injury prevention		\SPITISERVER\electrician\COMMON\Electrician 1st sem video\Basic safety introduction
5)		 <p>The diagram illustrates a construction worker wearing a yellow hard hat, safety glasses, a high-visibility vest, a safety harness, chaps pants, and work boots. Callouts point to each item with its respective protection type and hazard description:</p> <ul style="list-style-type: none">Head protection: Falling or flying objects, overhead objects.Eye protection: Blowing dust or particles, metal shavings, acids or caustic liquids, welding light.Hearing protection: Loud tools and machinery, poorly maintained equipment.High-visibility vest, pants: Errant vehicles, distracted drivers.Chaps pants: Chainsaws.Hand protection: Sharp or hot objects, chemicals, biological or electrical hazards.Foot protection: Falling or rolling objects, sharp or heavy objects, wet and slippery surfaces, uneven surfaces, hot surfaces, electrical hazards.Harness lanyard: Working more than 6 feet or more above a lower level.
6)		



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MASTER TEACHING PLAN

TRADE : ELECTRICIAN	TYPE OF CLASS: THEORY	1ST YEAR CLASS NO:2
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MAIN TOPIC / CHAPTER: OCCUPATIONAL SAFETY AND HEALTH (NSQF LEVEL – 5)	NO OF CLASS IN THIS MAIN TOPIC / CHAPTER:4
SUB TOPIC : SAFETY	<u>2nd</u> CLASS OF THE MAIN TOPIC
DURATION OF CLASS: 1 HOUR 20 MINTS	NCVT MAIN TOPIC WEEK NO-1

KEY POINTS & DESCRIPTION (AT LEAST 10 NOS PER CLASS)	EXAMPLE / INDUSTRY EXAMPLE	PHOTO / VIDEO / PRESENTATION/ WALL CHART
1) Basic first aid		
2) Hazard identification and avoidance		
3) safety signs for danger	Prohibition signs, Mandatory signs, Warning signs, Information signs	
4) Prohibition signs- Description about shape		
5) Mandatory signs- Description about shape		Fig1
6) Warning signs- Description about shape		Fig2
7) Information signs- Description about shape		Fig3
8)		
9)		
10)		
11)		

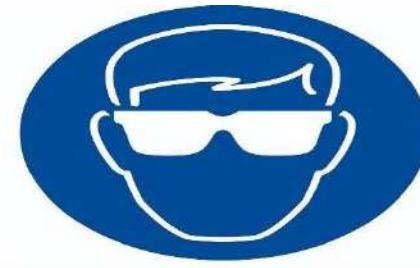


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Fig 2

Waring sign



**Eye protection
must be worn**

Fig 1

mandatory sign



Fig3

Information sign



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TRADE : ELECTRICIAN	TYPE OF CLASS: THEORY	1ST YEAR CLASS NO:3
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MAIN TOPIC / CHAPTER: OCCUPATIONAL SAFETY AND HEALTH (NSQF LEVEL – 5)	NO OF CLASS IN THIS MAIN TOPIC / CHAPTER:4
SUB TOPIC : SAFETY	3 rd CLASS OF THE MAIN TOPIC
DURATION OF CLASS: 1 HOUR 20 MINTS	NCVT MAIN TOPIC WEEK NO-1

KEY POINTS & DESCRIPTION (AT LEAST 10 NOS PER CLASS)	EXAMPLE / INDUSTRY EXAMPLE	PHOTO / VIDEO / PRESENTATION/ WALL CHART
1) caution and personal safety message		
2) Type of fire extinguishers		Fig4
3) Use of various type fire extinguishers		
4) Visit and observation of sections		
5)		
6)		
7)		
8)		
9)		
10)		
11)		



Extinguishing Medium & Colour Codes



Extinguishing Medium	Wet Chemical	Dry Powder	Foam	Water	Carbon Dioxide (CO ₂)
Description	Yellow	Blue	Cream	Red	Black

Types of fire extinguisher

Fig 4



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TRADE : ELECTRICIAN	TYPE OF CLASS: THEORY	1ST YEAR. CLASS NO:4
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MAIN TOPIC / CHAPTER: OCCUPATIONAL SAFETY AND HEALTH (NSQF LEVEL – 5)	NO OF CLASS IN THIS MAIN TOPIC / CHAPTER:4
SUB TOPIC : SAFETY	4 th CLASS OF THE MAIN TOPIC
DURATION OF CLASS: 1 HOUR 20 MINTS	NCVT MAIN TOPIC WEEK NO-1

KEY POINTS & DESCRIPTION (AT LEAST 10 NOS PER CLASS)	EXAMPLE / INDUSTRY EXAMPLE	PHOTO / VIDEO / PRESENTATION/ WALL CHART
1) Various safety measures involved in the Industry		
2) Elementary first Aid		Fig5
3) Concept of Standard		
4)		
5)		
6)		
7)		
8)		
9)		
10)		
11)		
12)		



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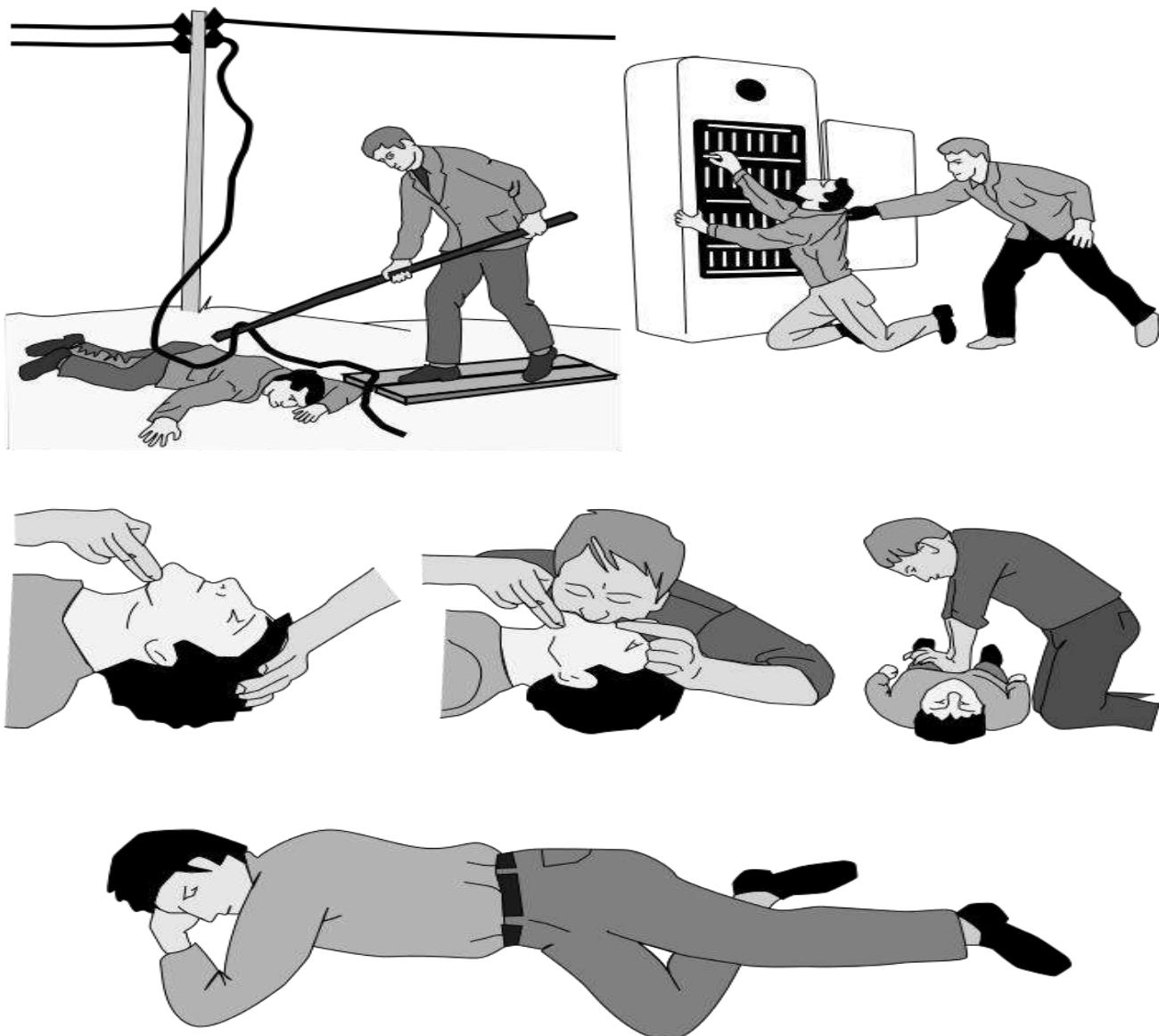


Fig5

Safty process of electrical accident



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TRADE : ELECTRICIAN	TYPE OF CLASS: THEORY	1ST YEAR CLASS NO:5
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MAIN TOPIC / CHAPTER: SOFT SKILLS (NSQF LEVEL – 5)	NO OF CLASS IN THIS MAIN TOPIC / CHAPTER:2
SUB TOPIC : SOFT SKILLS	<u>1ST</u> CLASS OF THE MAIN TOPIC
DURATION OF CLASS: 1 HOUR 20 MINTS	NCVT MAIN TOPIC WEEK NO-1

KEY POINTS & DESCRIPTION (AT LEAST 10 NOS PER CLASS)	EXAMPLE / INDUSTRY EXAMPLE	PHOTO / VIDEO / PRESENTATION/ WALL CHART
1) Its importance and Job area after completion of training		
2) Introduction of First aid.		
3) Artificial respiration		\SPITISERVER\electrician\COMMON\Electrician 1st sem video\Artificial respiration
4) Scaffer's method		CH 04 01 01 02 98
5) Silvester's method		CH 04 01 01 03 98
6) Mouth to mouth respiration		CH 04 01 01 04 98
7) Operation of electrical mains		
8)		
9)		
10)		
11)		
12)		



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TRADE : ELECTRICIAN	TYPE OF CLASS: THEORY	1ST YEAR CLASS NO:6
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MAIN TOPIC / CHAPTER: SOFT SKILLS (NSQF LEVEL – 5)	NO OF CLASS IN THIS MAIN TOPIC / CHAPTER:4
SUB TOPIC : SOFT SKILLS	<u>2nd</u> CLASS OF THE MAIN TOPIC
DURATION OF CLASS: 1 HOUR 20 MINTS	NCVT MAIN TOPIC WEEK NO-1

KEY POINTS & DESCRIPTION (AT LEAST 10 NOS PER CLASS)	EXAMPLE / INDUSTRY EXAMPLE	PHOTO / VIDEO / PRESENTATION/ WALL CHART
1) Introduction of PPEs.		
2) Introduction to 5S concept & its application		\SPITISERVER\electrician\COMMON\Electrician 1st sem video\5s concept
3) Response to emergencies	Power failure, Fire and System failure	
4)		
5)		
6)		
7)		
8)		
9)		
10)		
11)		
12)		



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TRADE : ELCTRICIAN	TYPE OF CLASS: THEORY	1ST YEAR CLASS NO:7
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MAIN TOPIC / CHAPTER: IDENTIFICATION OF TRADE-HAND TOOLS SPECIFICATIONS , USES AND THEIR CARE MAINTENANCE (NSQF LEVEL – 5)	NO OF CLASS IN THIS MAIN TOPIC / CHAPTER:9
SUB TOPIC : COMBINATION PLIERS, FLAT NOSE PLIERS & LONG NOSE PLIERS	1ST CLASS OF THE MAIN TOPIC
DURATION OF CLASS: 1HOUR 20 MINTS	NCVT MAIN TOPIC WEEK NO-2

KEY POINTS & DESCRIPTION (AT LEAST 10 NOS PER CLASS)	EXAMPLE / INDUSTRY EXAMPLE	PHOTO / VIDEO / PRESENTATION/ WALL CHART
1) Introduction about trade hand tools	Combination pliers, Flat nose pliers, Long nose pliers, Screwdriver etc	
2) Combination pliers- Draw and Identification		Fig6
3) Combination pliers-Description		
4) Combination pliers-Care and maintenance		
5) Flat nose pliers - Draw and Identification		Fig7
6) Flat nose pliers- Care and maintenance		
7) Long nose pliers- Draw and Identification		Fig8
8) Long nose pliers-Description		
9) Long nose pliers-Care and maintenance		
10)		
11)		
12)		



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Fig6
Combination pliers



fig7
flat nose pliers



Fig 8
Long nose pliers



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TRADE : ELCTRICIAN	TYPE OF CLASS: THEORY	1ST YEAR CLASS NO:8
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MAIN TOPIC / CHAPTER: IDENTIFICATION OF TRADE-HAND TOOLS SPECIFICATIONS , USES AND THEIR CARE MAINTENANCE (NSQF LEVEL – 5)	NO OF CLASS IN THIS MAIN TOPIC / CHAPTER:9
SUB TOPIC : SIDE CUTTING PLIERS, ROUND NOSE PLIERS , SCREWDRIVER & NEON TESTER	<u>2ND</u> CLASS OF THE MAIN TOPIC
DURATION OF CLASS: 1HOUR 20 MINTS	NCVT MAIN TOPIC WEEK NO-2

KEY POINTS & DESCRIPTION (AT LEAST 10 NOS PER CLASS)	EXAMPLE / INDUSTRY EXAMPLE	PHOTO / VIDEO / PRESENTATION/ WALL CHART
1) Side cutting pliers- Draw and Identification		Fig9
2) Side cutting pliers-Description		
3) Side cutting pliers-Care and maintenance		
4) Round nose pliers- Draw and Identification		Fig10
5) Round nose pliers-Description		
6) Round nose pliers-Care and maintenance		
7) Screwdriver - Draw and Identification		Fig11
8) Screwdriver - pliers-Description		
9) Screwdriver -Care and maintenance		
10) Neon tester- Draw and Identification		Fig12
11) Neon tester –Description		
12) Neon tester -Care and maintenance		



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Fig9

Side cutting pliers



Fig10

round nose pliers

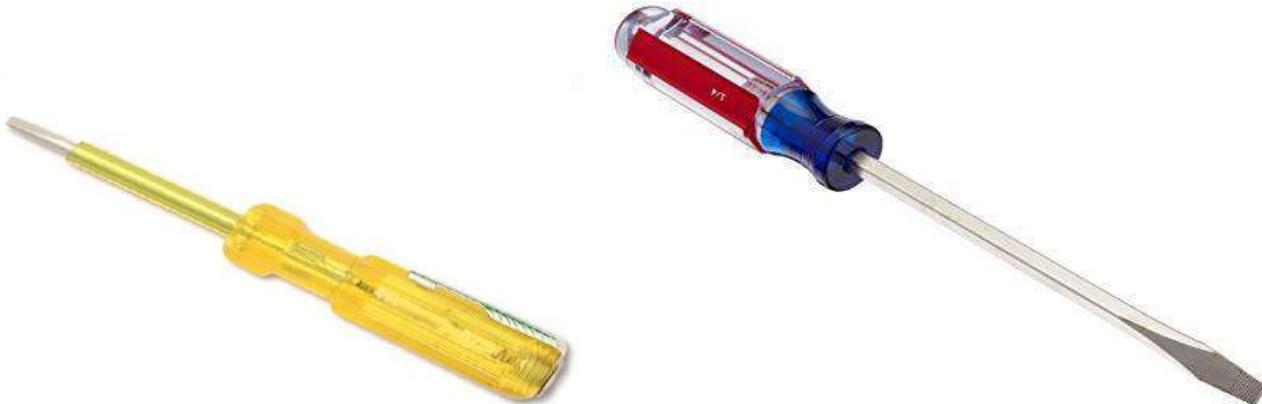


Fig11

Neon tester

fig12

screw driver



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TRADE : ELCTRICIAN	TYPE OF CLASS: THEORY	1ST YEAR CLASS NO:9
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MAIN TOPIC / CHAPTER: IDENTIFICATION OF TRADE-HAND TOOLS SPECIFICATIONS , USES AND THEIR CARE MAINTENANCE (NSQF LEVEL – 5)	NO OF CLASS IN THIS MAIN TOPIC / CHAPTER:4
SUB TOPIC : ELECTRICIAN KNIFE, HAMMER, TRY SQUARE & FIRMER CHISEL	<u>3RD</u> CLASS OF THE MAIN TOPIC
DURATION OF CLASS: 1HOUR 20 MINTS	NCVT MAIN TOPIC WEEK NO-2

KEY POINTS & DESCRIPTION (AT LEAST 10 NOS PER CLASS)	EXAMPLE / INDUSTRY EXAMPLE	PHOTO / VIDEO / PRESENTATION/ WALL CHART
1) Electrician knife- Draw and Identification		Fig13
2) Electrician knife –Description		
3) Electrician knife -Care and maintenance		
4) Hammer- Draw and Identification		Fig14
5) Hammer –Description		
6) Hammer -Care and maintenance		
7) Try square- Draw and Identificatio		Fig15
8) Try square –Description		
9) Try square -Care and maintenance		
10) Firmer Chisel - Draw and Identification		Fig16
11) Firmer Chisel -Description		
12) Firmer Chisel -Care and maintenance		



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Fig13

Electrician knife



Fig14

hammer

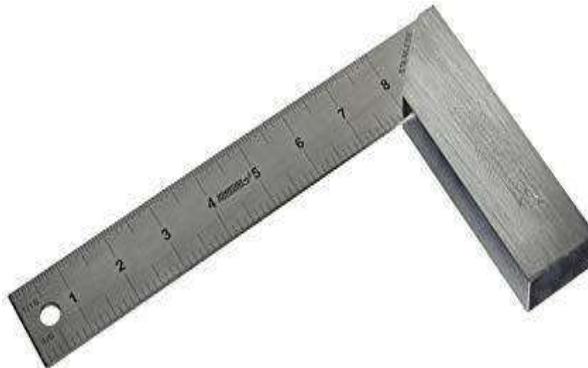


Fig 15

Try square



Fig 16

firmer chisel



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TRADE : ELCTRICIAN	TYPE OF CLASS: THEORY	1ST YEAR CLASS NO:10
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MAIN TOPIC / CHAPTER: IDENTIFICATION OF TRADE-HAND TOOLS SPECIFICATIONS , USES AND THEIR CARE MAINTENANCE. (NSQF LEVEL – 5)	NO OF CLASS IN THIS MAIN TOPIC / CHAPTER:9
SUB TOPIC : SAFETY TENON SAW, WOOD RASP FILE, FILES & PLUMB BOB.	<u>4TH</u> CLASS OF THE MAIN TOPIC
DURATION OF CLASS: 1 HOUR 20 MINTS	NCVT MAIN TOPIC WEEK NO-2

KEY POINTS & DESCRIPTION (AT LEAST 10 NOS PER CLASS)	EXAMPLE / INDUSTRY EXAMPLE	PHOTO / VIDEO / PRESENTATION/ WALL CHART
1) Tenon saw- Draw and Identification		Fig 17
2) Tenon saw -Description		
3) Tenon saw -Care and maintenance		
4) Wood rasp file - Draw and Identification		Fig 18
5) Wood rasp file -Description		
6) Wood rasp file -Care and maintenance		
7) Files - Draw and Identification		Fig 19
8) Files -Description		
9) Files -Care and maintenance		
10) Plumb bob- Draw and Identification		Fig 20
11) Plumb bob –Description		
12) Plumb bob-Care and maintenance		



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Fig 17

Tenon saw



Fig 19

all types of file



Fig 18

Wood rasp file

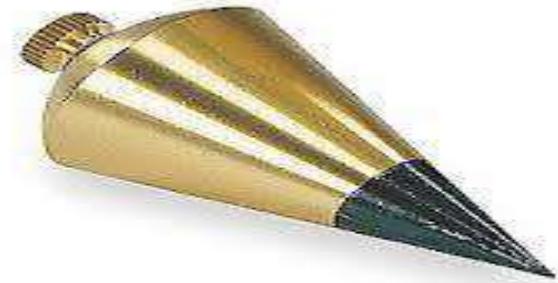


Fig 19

plumb bob



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TRADE : ELCTRICIAN	TYPE OF CLASS: THEORY	1ST YEAR CLASS NO:11
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MAIN TOPIC / CHAPTER: IDENTIFICATION OF TRADE-HAND TOOLS SPECIFICATIONS , USES AND THEIR CARE MAINTENANCE. (NSQF LEVEL – 5)	NO OF CLASS IN THIS MAIN TOPIC / CHAPTER:9
SUB TOPIC : POKER, GIMLET, CENTRE PUNCH & MALLET	<u>5TH</u> CLASS OF THE MAIN TOPIC
DURATION OF CLASS: 1HOUR 20 MINTS	NCVT MAIN TOPIC WEEK NO-3

KEY POINTS & DESCRIPTION (AT LEAST 10 NOS PER CLASS)	EXAMPLE / INDUSTRY EXAMPLE	PHOTO / VIDEO / PRESENTATION/ WALL CHART
1) Poker - Draw and Identification		Fig20
2) Poker -Description		
3) Poker -Care and maintenance		
4) Gimlet - Draw and Identification		Fig21
5) Gimlet - Description		
6) Gimlet - Care and maintenance		
7) Centre punch - Draw and Identification		Fig22
8) Centre punch - Description		
9) Centre punch - Care and maintenance		
10) Mallet - Draw and Identification		Fig23
11) Mallet - Description		
12) Mallet - Care and maintenance		



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Fig20

Poker



Fig21

gimlet



Fig22

Center punch



Fig23

mallet



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TRADE : ELCTRICIAN	TYPE OF CLASS: THEORY	1ST YEAR CLASS NO:12
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MAIN TOPIC / CHAPTER: OCCUPATIONAL SAFETY AND HEALTH (NSQF LEVEL – 5)	NO OF CLASS IN THIS MAIN TOPIC / CHAPTER:4
SUB TOPIC : SAFETY	<u>1ST</u> CLASS OF THE MAIN TOPIC
DURATION OF CLASS: 1HOUR 20 MINTS	NCVT MAIN TOPIC WEEK NO-1

KEY POINTS & DESCRIPTION (AT LEAST 10 NOS PER CLASS)	EXAMPLE / INDUSTRY EXAMPLE	PHOTO / VIDEO / PRESENTATION/ WALL CHART
1) Ratchet brace- Draw and Identification		
2) Ratchet brace – Description		
3) Ratchet brace - Care and maintenance		
4) Flat cold chisel - Draw and Identification		
5) Flat cold chisel – Description		
6) Flat cold chisel - Care and maintenance		
7) Rawl plug tool & bit - Draw and Identification		
8) Rawl plug tool & bit – Description		
9) Rawl plug tool & bit - Care and maintenance		
10) Spanner - Draw and Identification		
11)) Spanner - Description		
12) Spanner - Care and maintenance		



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TRADE : ELECTRICIAN	TYPE OF CLASS: THEORY	1ST YEAR CLASS NO:13
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MAIN TOPIC / CHAPTER: OCCUPATIONAL SAFETY AND HEALTH IDENTIFICATION OF TRADE-HAND TOOLS SPECIFICATIONS , USES AND THEIR CARE MAINTENANCE. (NSQF LEVEL – 5)	NO OF CLASS IN THIS MAIN TOPIC / CHAPTER:4
SUB TOPIC : SAFETY RING SPANNER SET, SOCKET SPANNER, SINGLE ENDED OPEN JAW ADJUSTABLE SPANNER SET & MEASURING STEEL TAPE	7TH CLASS OF THE MAIN TOPIC
DURATION OF CLASS: 1 HOUR 20 MINTS	NCVT MAIN TOPIC WEEK NO-3

KEY POINTS & DESCRIPTION (AT LEAST 10 NOS PER CLASS)	EXAMPLE / INDUSTRY EXAMPLE	PHOTO / VIDEO / PRESENTATION/ WALL CHART
1) Ring Spanner Set - Draw and Identification		
2) Ring Spanner Set – Description		
3) Ring Spanner Set - Care and maintenance		
4) Socket spanner- Draw and Identification		
5) Socket spanner – Description		
6) Socket spanner - Care and maintenance		
7) Single ended open jaw adjustable spanner set - Draw and Identification		
8) Single ended open jaw adjustable spanner set – Description		
9) Single ended open jaw adjustable spanner set - Care and maintenance)		
10) Measuring steel tape - Draw and Identification		
11) Measuring steel tape - Description		



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TRADE : ELCTRICIAN	TYPE OF CLASS: THEORY	1ST YEAR CLASS NO:14
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MAIN TOPIC / CHAPTER: IDENTIFICATION OF TRADE-HAND TOOLS SPECIFICATIONS , USES AND THEIR CARE MAINTENANCE (NSQF LEVEL – 5)	NO OF CLASS IN THIS MAIN TOPIC / CHAPTER:9
SUB TOPIC : HACKSAW, PINCERS, HAND DRILL, PORTABLE ELECTRIC DRILLING MACHINE	_8TH____ CLASS OF THE MAIN TOPIC
DURATION OF CLASS: 1HOUR 20 MINTS	NCVT MAIN TOPIC WEEK NO-3

KEY POINTS & DESCRIPTION (AT LEAST 10 NOS PER CLASS)	EXAMPLE / INDUSTRY EXAMPLE	PHOTO / VIDEO / PRESENTATION/ WALL CHART
1) Hacksaw- Draw and Identification		
2) Hacksaw – Description		
3) Hacksaw - Care and maintenance		
4) Pincers - Draw and Identification		
5) Pincers – Description		
6) Pincers - Care and maintenance		
7) Hand drill- Draw and Identification		
8) Hand drill – Description		
9) Hand drill - Care and maintenance		
10) Portable electric drilling machine- Draw and Identification		
11) Portable electric drilling machine - Description		
12) Portable electric drilling machine - Care and maintenance		



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TRADE : ELECTRICIAN	TYPE OF CLASS: THEORY	1ST YEAR CLASS NO:15
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MAIN TOPIC / CHAPTER: IDENTIFICATION OF TRADE-HAND TOOLS SPECIFICATIONS , USES AND THEIR CARE MAINTENANCE (NSQF LEVEL – 5)	NO OF CLASS IN THIS MAIN TOPIC / CHAPTER:9
SUB TOPIC : RIVETS	9TH CLASS OF THE MAIN TOPIC
DURATION OF CLASS: 1 HOUR 20 MINTS	NCVT MAIN TOPIC WEEK NO-3

KEY POINTS & DESCRIPTION (AT LEAST 10 NOS PER CLASS)	EXAMPLE / INDUSTRY EXAMPLE	PHOTO / VIDEO / PRESENTATION/ WALL CHART
1) Rivets-Introduction		
2) Types of rivets	Flat head rivet, Round head rivet, Countersunk head rivet	
3) Tinmen's rivet, Flat head rivet, Round head rivet, Countersunk head rivet- brief description.		
4) Size of rivets		
5) Machine screws-Introduction		
6) Types of Machine screws & brief description.		
7) Types of clamps & brief description.		
8) Nut & Bolts		



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TRADE : ELCTRICIAN	TYPE OF CLASS: THEORY	1ST YEAR CLASS NO:16
MAIN TOPIC / CHAPTER: FUNDAMENTAL OF ELECTRICITY. ELECTRON THEORY- FREE ELECTRON, FUNDAMENTAL TERMS, DEFINITIONS, UNITS & EFFECTS OF ELECTRIC CURRENT (NSQF LEVEL – 5)	NO OF CLASS IN THIS MAIN TOPIC / CHAPTER:9	
SUB TOPIC : FUNDAMENTAL OF ELECTRICITY SAFETY	1ST CLASS OF THE MAIN TOPIC	
DURATION OF CLASS: 1HOUR 20 MINTS	NCVT MAIN TOPIC WEEK NO-4	

KEY POINTS & DESCRIPTION (AT LEAST 10 NOS PER CLASS)	EXAMPLE / INDUSTRY EXAMPLE	PHOTO / VIDEO / PRESENTATION/ WALL CHART
1) Introduction		
2) Example of electric current & static electricity	Domestic electric supply & industrial electric supply	\\SPITISERVER\\electrician\\COMMON\\Electrician 1st sem video\\Electric current
3) Atomic Structure		\\SPITISERVER\\electrician\\COMMON\\Electrician 1st sem video\\Electric current
4) Brief description about conductors	Silver,Copper,Aluminium etc	
5) Brief description about insulators	Air, Glass, Rubber etc	
6) Brief description about semiconductors	Silicon, Germanium etc.	
7)		
8)		
9)		
10)		
11)		



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TRADE : ELCTRICIAN TYPE OF CLASS: THEORY 1ST YEAR CLASS NO:17

MAIN TOPIC / CHAPTER: FUNDAMENTAL OF ELECTRICITY. ELECTRON THEORY- FREE ELECTRON, FUNDAMENTAL TERMS, DEFINITIONS, UNITS & EFFECTS OF ELECTRIC CURRENT (NSQF LEVEL – 5)	NO OF CLASS IN THIS MAIN TOPIC / CHAPTER:9
SUB TOPIC : SIMPLE ELECTRIC CIRCUIT AND ITS ELEMENT.	<u>2ND</u> CLASS OF THE MAIN TOPIC
DURATION OF CLASS: 1HOUR 20 MINTS	NCVT MAIN TOPIC WEEK NO-3



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TRADE : ELECTRICIAN	TYPE OF CLASS: THEORY	1ST YEAR CLASS NO:18
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MAIN TOPIC / CHAPTER: FUNDAMENTAL OF ELECTRICITY. ELECTRON THEORY- FREE ELECTRON, FUNDAMENTAL TERMS, DEFINITIONS, UNITS & EFFECTS OF ELECTRIC CURRENT (NSQF LEVEL – 5)	NO OF CLASS IN THIS MAIN TOPIC / CHAPTER:4
SUB TOPIC : SIMPLE ELECTRIC CIRCUIT AND ITS ELEMENT.	<u>3RD</u> CLASS OF THE MAIN TOPIC
DURATION OF CLASS: 1 HOUR 20 MINTS	NCVT MAIN TOPIC WEEK NO-3

KEY POINTS & DESCRIPTION (AT LEAST 10 NOS PER CLASS)	EXAMPLE / INDUSTRY EXAMPLE	PHOTO / VIDEO / PRESENTATION/ WALL CHART
1) Description about resistance		
2) Measurement of resistance		
3) International Ohm, Ampere & Volt		
4) Conductance		
5) Electromotive force(emf)		\SPITISERVER\electrician\COMMON\Electrician 1st sem video\Electromotive force
6) Terminal voltage		
7) Quantity of electricity		
8) Coulomb		
9)		
10)		
11)		
12)		



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TRADE : ELECTRICIAN	TYPE OF CLASS: THEORY	1ST YEAR CLASS NO:19
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MAIN TOPIC / CHAPTER: FUNDAMENTAL OF ELECTRICITY. ELECTRON THEORY- FREE ELECTRON, FUNDAMENTAL TERMS, DEFINITIONS, UNITS & EFFECTS OF ELECTRIC CURRENT (NSQF LEVEL – 5)	NO OF CLASS IN THIS MAIN TOPIC / CHAPTER:9
SUB TOPIC : TYPES OF ELECTRICAL SUPPLY	4 TH CLASS OF THE MAIN TOPIC
DURATION OF CLASS: 1 HOUR 20 MINTS	NCVT MAIN TOPIC WEEK NO-3-4

KEY POINTS & DESCRIPTION (AT LEAST 10 NOS PER CLASS)	EXAMPLE / INDUSTRY EXAMPLE	PHOTO / VIDEO / PRESENTATION/ WALL CHART
1) Introduction		
2) Types of electrical supply		
3) Description about DC electrical supply		SPITISERVER\electrician\COMMON\Electrician 1st sem video\DC electric supply
4) Circuit diagram & graphical representation of DC electrical supply		
5) Description about AC electrical supply		SPITISERVER\electrician\COMMON\Electrician 1st sem video\DC electric supply
6) Circuit diagram & graphical representation of AC electrical supply		

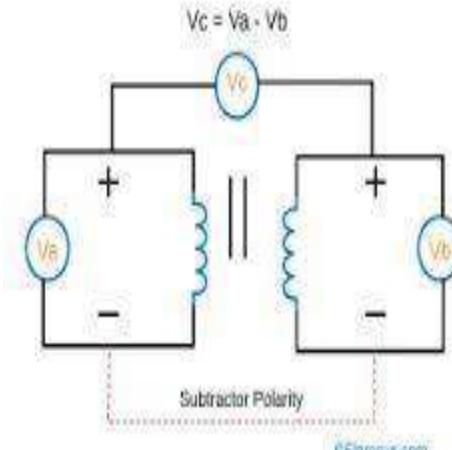


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MASTER TEACHING PLAN

TRADE : ELECTRICIAN	TYPE OF CLASS: THEORY	1ST YEAR. CLASS NO:20
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MAIN TOPIC / CHAPTER: FUNDAMENTAL OF ELECTRICITY. ELECTRON THEORY- FREE ELECTRON, FUNDAMENTAL TERMS, DEFINITIONS, UNITS & EFFECTS OF ELECTRIC CURRENT (NSQF LEVEL – 5)	NO OF CLASS IN THIS MAIN TOPIC / CHAPTER:9
SUB TOPIC : POLARITY TEST IN DC	5 TH CLASS OF THE MAIN TOPIC
DURATION OF CLASS: 1 HOUR 20 MINTS	NCVT MAIN TOPIC WEEK NO-3-4

KEY POINTS & DESCRIPTION (AT LEAST 10 NOS PER CLASS)	EXAMPLE / INDUSTRY EXAMPLE	PHOTO / VIDEO / PRESENTATION/ WALL CHART
1) Introduction		
2) Importance of polarity		
3) Testing polarity by MC meter		 <p>$V_c = V_a - V_b$</p> <p>Subtractor Polarity</p> <p>©Eguru.com</p>
4) Polarity of the battery		
5) Polarity of DC supply		



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TRADE : ELECTRICIAN	TYPE OF CLASS: THEORY	1ST YEAR CLASS NO:21
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MAIN TOPIC / CHAPTER: FUNDAMENTAL OF ELECTRICITY. ELECTRON THEORY- FREE ELECTRON, FUNDAMENTAL TERMS, DEFINITIONS, UNITS & EFFECTS OF ELECTRIC CURRENT (NSQF LEVEL – 5)	NO OF CLASS IN THIS MAIN TOPIC / CHAPTER:9
SUB TOPIC : POLARITY TEST IN DC	<u>6TH</u> CLASS OF THE MAIN TOPIC
DURATION OF CLASS: 1 HOUR 20 MINTS	NCVT MAIN TOPIC WEEK NO-3-4

KEY POINTS & DESCRIPTION (AT LEAST 10 NOS PER CLASS)	EXAMPLE / INDUSTRY EXAMPLE	PHOTO / VIDEO / PRESENTATION/ WALL CHART
1) Marking made in practice		
2) Neon polarity indicator		
3) Chemical effect		
4) Heating effect		
5) Magnetic effect		
6) Gas ionization effect		
7) Special rays effect		
8) Shock effect		
9)		
10)		
11)		
12)		



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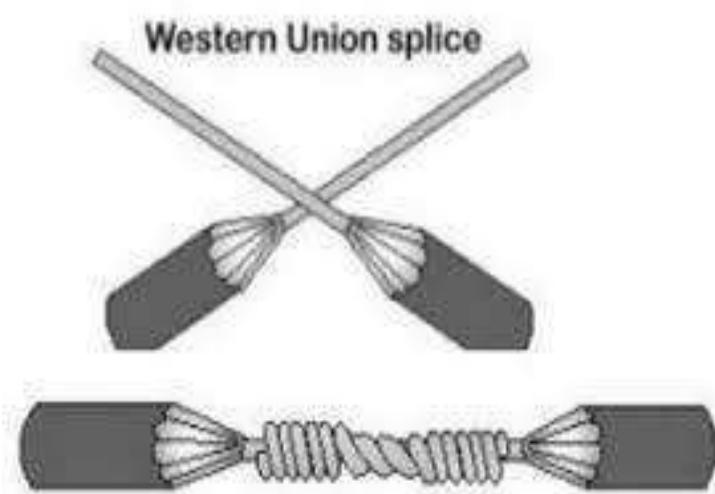
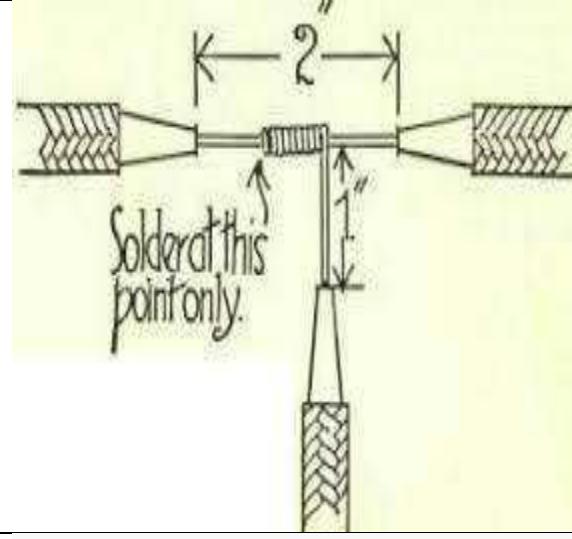
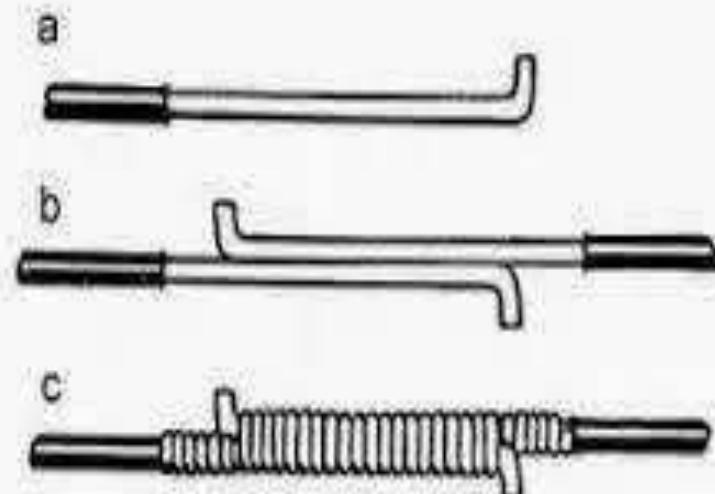
TRADE : ELCTRICIAN	TYPE OF CLASS: THEORY	1ST YEAR CLASS NO:22
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MAIN TOPIC / CHAPTER FUNDAMENTAL OF ELECTRICITY. ELECTRON THEORY- FREE ELECTRON, FUNDAMENTAL TERMS, DEFINITIONS, UNITS & EFFECTS OF ELECTRIC CURRENT (NSQF LEVEL – 5)	NO OF CLASS IN THIS MAIN TOPIC / CHAPTER:9
SUB TOPIC : JOINTS IN ELECTRICAL CONDUCTOR	7 TH CLASS OF THE MAIN TOPIC
DURATION OF CLASS: 1 HOUR 20 MINTS	NCVT MAIN TOPIC WEEK NO-1

KEY POINTS & DESCRIPTION (AT LEAST 10 NOS PER CLASS)	EXAMPLE / INDUSTRY EXAMPLE	PHOTO / VIDEO / PRESENTATION/ WALL CHART
1) Introduction		
2) Handling		
3) Skinning of cables		
4) Connecting the cable ends		
5) Definition of joints		
6) Types of joints	Twisted joints, Married joints, Tee joints etc	
7) Twisted joint-Drawing & Description		 © Gene Haynes



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8) Married joint-Drawing & Description		
9) Tee joint-Drawing & Description		
10) Britannia joint-Drawing & Description		
11)		
12)		



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TRADE : ELECTRICIAN	TYPE OF CLASS: THEORY	1ST YEAR CLASS NO:23
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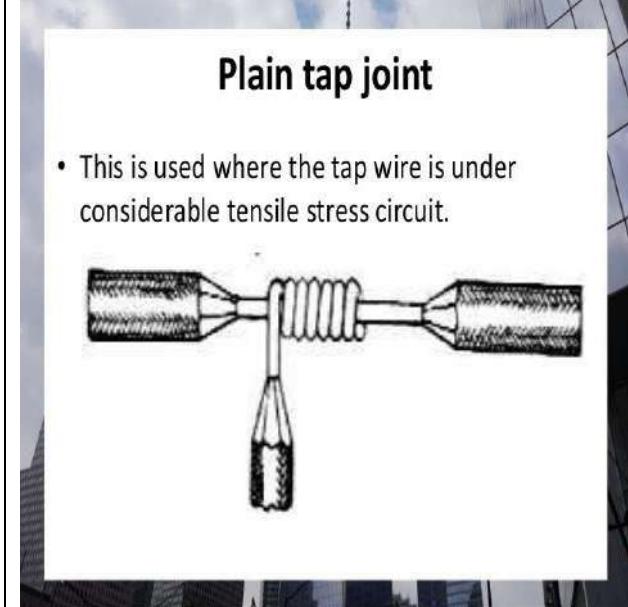
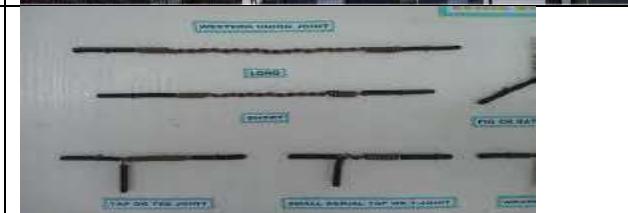
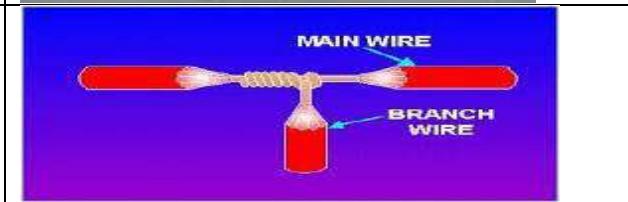
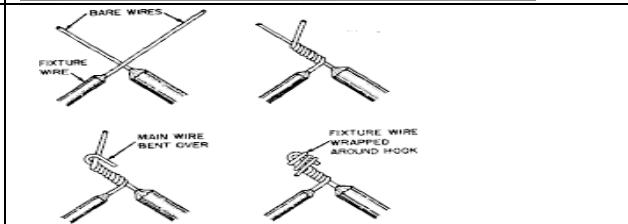
MAIN TOPIC / CHAPTER: FUNDAMENTAL OF ELECTRICITY. ELECTRON THEORY- FREE ELECTRON, FUNDAMENTAL TERMS, DEFINITIONS, UNITS & EFFECTS OF ELECTRIC CURRENT (NSQF LEVEL – 5)	NO OF CLASS IN THIS MAIN TOPIC / CHAPTER:4
SUB TOPIC : JOINTS IN ELECTRICAL CONDUCTOR	8 TH CLASS OF THE MAIN TOPIC
DURATION OF CLASS: 1 HOUR 20 MINTS	NCVT MAIN TOPIC WEEK NO-3-4

KEY POINTS & DESCRIPTION (AT LEAST 10 NOS PER CLASS)	EXAMPLE / INDUSTRY EXAMPLE	PHOTO / VIDEO / PRESENTATION/ WALL CHART
1) Britannia tea joint-Drawing & Description		
2) Western union joint-Drawing & Description		
3) Scarfed joint-Drawing & Description		



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4) Plain tap joint-Drawing & Description		 <p>Plain tap joint</p> <ul style="list-style-type: none">• This is used where the tap wire is under considerable tensile stress circuit.
5) Aerial tap joint-Drawing & Description		
6) Knotted tap joint-Drawing & Description		 <p>MAIN WIRE BRANCH WIRE</p>
7) Duplex cross tap joint-Drawing & Description		
8) Double cross tap joint-Drawing & Description		 <p>BARE WIRES FIXTURE WIRE MAIN WIRE BENT OVER FIXTURE WIRE WRAPPED AROUND HOOK</p>
9)		
10)		
11)		
12)		



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TRADE : ELECTRICIAN	TYPE OF CLASS: THEORY	1ST YEAR CLASS NO:24
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MAIN TOPIC / CHAPTER: FUNDAMENTAL OF ELECTRICITY. ELECTRON THEORY- FREE ELECTRON, FUNDAMENTAL TERMS, DEFINITIONS, UNITS & EFFECTS OF ELECTRIC CURRENT (NSQF LEVEL – 5)	NO OF CLASS IN THIS MAIN TOPIC / CHAPTER:4
SUB TOPIC : CABLE END TERMINATION	9 TH CLASS OF THE MAIN TOPIC
DURATION OF CLASS: 1 HOUR 20 MINTS	NCVT MAIN TOPIC WEEK NO-4-5

KEY POINTS & DESCRIPTION (AT LEAST 10 NOS PER CLASS)	EXAMPLE / INDUSTRY EXAMPLE	PHOTO / VIDEO / PRESENTATION/ WALL CHART
1) Introduction		
2) Types of termination	Insert type, Arrow type, R type etc	
3) Drawing of connection process		
5)		
6)		
7)		
8)		
9)		
10)		
11)		
12)		

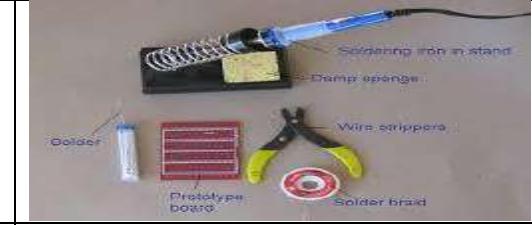


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TRADE : ELECTRICIAN	TYPE OF CLASS: THEORY	1ST YEAR. CLASS NO:25
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MAIN TOPIC / CHAPTER: FUNDAMENTAL OF ELECTRICITY. ELECTRON THEORY- FREE ELECTRON, FUNDAMENTAL TERMS, DEFINITIONS, UNITS & EFFECTS OF ELECTRIC CURRENT (NSQF LEVEL – 5)	NO OF CLASS IN THIS MAIN TOPIC / CHAPTER:4
SUB TOPIC : SOLDERING PRACTICE	1 ST CLASS OF THE MAIN TOPIC
DURATION OF CLASS: 1 HOUR 20 MINTS	NCVT MAIN TOPIC WEEK NO-5

KEY POINTS & DESCRIPTION (AT LEAST 10 NOS PER CLASS)	EXAMPLE / INDUSTRY EXAMPLE	PHOTO / VIDEO / PRESENTATION/ WALL CHART
1) Introduction		
2) Types of solder	Tinman's solder, Electrician's solder, Fine solder, Plumber's solder	
3) Choice of solder		
4) Soldering flux		
5) Soldering methods	Soldering with a soldering iron, Soldering with a soldering gun, Soldering with a flame, Dip soldering, Machine soldering	
6) Soldering with a soldering iron		
7) Soldering with a soldering gun		
8) Soldering with a flame		
9) Dip soldering		
10) Machine soldering		
11)		



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TRADE : ELCTRICIAN	TYPE OF CLASS: THEORY	1ST YEAR CLASS NO:26
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MAIN TOPIC / CHAPTER: SOLDERS, FLUX AND SOLDERING TECHNIQUE. RESISTORS TYPES OF RESISTORS & PROPERTIES OF RESISTORS (NSQF LEVEL – 5)	NO OF CLASS IN THIS MAIN TOPIC / CHAPTER:4
SUB TOPIC : TECHNIQUES OF SOLDERING	<u>2ND</u> CLASS OF THE MAIN TOPIC
DURATION OF CLASS: 1HOUR 20 MINTS	NCVT MAIN TOPIC WEEK NO-6

KEY POINTS & DESCRIPTION (AT LEAST 10 NOS PER CLASS)	EXAMPLE / INDUSTRY EXAMPLE	PHOTO / VIDEO / PRESENTATION/ WALL CHART
1) Introduction		
2) Soldering with electric soldering iron		
3) Selecting the bit		\
4) Care of bit		
5) Dressing the bit		
6) Cleaning the bit		
7) Soldering		
8) Techniques of soldering iron		SPITISERVER\electrician\COMMON\Electrician 1st sem video\DC electric supply
9)		
10)		
11)		
12)		



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TRADE : ELCTRICIAN	TYPE OF CLASS: THEORY	1ST YEAR CLASS NO:27
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MAIN TOPIC / CHAPTER: SOLDERS, FLUX AND SOLDERING TECHNIQUE. RESISTORS TYPES OF RESISTORS & PROPERTIES OF RESISTORS (NSQF LEVEL – 5)	NO OF CLASS IN THIS MAIN TOPIC / CHAPTER:
SUB TOPIC : SOLDERING ALUMINIUM CABLE	____ 3 RD _ CLASS OF THE MAIN TOPIC
DURATION OF CLASS: 1HOUR 20 MINTS	NCVT MAIN TOPIC WEEK NO-6

KEY POINTS & DESCRIPTION (AT LEAST 10 NOS PER CLASS)	EXAMPLE / INDUSTRY EXAMPLE	PHOTO / VIDEO / PRESENTATION/ WALL CHART
1) Soldering of aluminium cable		
2) Procedure for soldering aluminium		SPITISERVER\electrician\COMMON\Electrician 1st sem video\DC electric supply
3) Precaution		\
4) Safety		
5)		
6)		
7)		
8)		
9)		
10)		



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TRADE : ELECTRICIAN	TYPE OF CLASS: THEORY	1ST YEAR CLASS NO:28
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MAIN TOPIC / CHAPTER: SOLDERS, FLUX AND SOLDERING TECHNIQUE. RESISTORS TYPES OF RESISTORS & PROPERTIES OF RESISTORS (NSQF LEVEL – 5)	NO OF CLASS IN THIS MAIN TOPIC / CHAPTER:4
SUB TOPIC : RESISTORS	<u>4TH</u> CLASS OF THE MAIN TOPIC
DURATION OF CLASS: 1 HOUR 20 MINTS	NCVT MAIN TOPIC WEEK NO-6

KEY POINTS & DESCRIPTION (AT LEAST 10 NOS PER CLASS)	EXAMPLE / INDUSTRY EXAMPLE	PHOTO / VIDEO / PRESENTATION/ WALL CHART
1) Introduction		
2) Types of resistor	Carbon composition resistor, Wire wound resistor, Film resistor & Printed resistor	
3) Construction		\
4) Power rating		
5) Resistor colour code		
6) Types of resistor lead	Axial lead, Radial lead, Terminal lugs.	
7) Properties of resistors		
8)		
9)		
10)		



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TRADE : ELECTRICIAN	TYPE OF CLASS: THEORY	1ST YEAR CLASS NO:29
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MAIN TOPIC / CHAPTER: INTRODUCTION OF NATIONAL ELECTRICAL CODE 2011 EXPLANATION, DEFINITION AND PROPERTIES OF CONDUCTORS (NSQF LEVEL – 5)	NO OF CLASS IN THIS MAIN TOPIC / CHAPTER:3
SUB TOPIC : INTRODUCTION, PROPERTIES OF CONDUCTOR	<u>1ST</u> CLASS OF THE MAIN TOPIC
DURATION OF CLASS: 1 HOUR 20 MINTS	NCVT MAIN TOPIC WEEK NO-6

KEY POINTS & DESCRIPTION (AT LEAST 10 NOS PER CLASS)	EXAMPLE / INDUSTRY EXAMPLE	PHOTO / VIDEO / PRESENTATION/ WALL CHART
1) Introduction of National Electrical Code 2011		
2) Explanation of National Electrical Code 2011		
3) Definition of conductors		\
4) Properties of conductors		
5) Definition of Insulators & example	Wood, Rubber, Glass etc	
6) Definition of Semi-conductors & example Germenium		
7)		
8)		
9)		
10)		



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TRADE : ELECTRICIAN	TYPE OF CLASS: THEORY	1ST YEAR CLASS NO:
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MAIN TOPIC / CHAPTER: INTRODUCTION OF NATIONAL ELECTRICAL CODE 2011 EXPLANATION, DEFINITION AND PROPERTIES OF CONDUCTORS (NSQF LEVEL – 5)	NO OF CLASS IN THIS MAIN TOPIC / CHAPTER:3
SUB TOPIC : INSULATORS & WIRES	2 ND CLASS OF THE MAIN TOPIC
DURATION OF CLASS: 1 HOUR 20 MINTS	NCVT MAIN TOPIC WEEK NO-6-7

KEY POINTS & DESCRIPTION (AT LEAST 10 NOS PER CLASS)	EXAMPLE / INDUSTRY EXAMPLE	PHOTO / VIDEO / PRESENTATION/ WALL CHART
1) Voltage grading of different types of Insulators		
2) Temp rise permissible of different types of Insulators		
3) Properties of Insulator		\
4) Specification of wires		
5) Standard wire gauge		



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TRADE : ELECTRICIAN	TYPE OF CLASS: THEORY	1ST YEAR CLASS NO:31
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MAIN TOPIC / CHAPTER: INTRODUCTION OF NATIONAL ELECTRICAL CODE 2011 EXPLANATION, DEFINITION AND PROPERTIES OF CONDUCTORS (NSQF LEVEL – 5)	NO OF CLASS IN THIS MAIN TOPIC / CHAPTER:
SUB TOPIC : TYPES OF CABLES	<u>3RD</u> CLASS OF THE MAIN TOPIC
DURATION OF CLASS: 1 HOUR 20 MINTS	NCVT MAIN TOPIC WEEK NO-6-5

KEY POINTS & DESCRIPTION (AT LEAST 10 NOS PER CLASS)	EXAMPLE / INDUSTRY EXAMPLE	PHOTO / VIDEO / PRESENTATION/ WALL CHART
1) Specification of cables insulation		
2) Voltage grades of cables - Low , medium & high voltage		
3) Precautions in using various types of cables		\
4) Precautions in using various types of Ferrules		
5)		
6)		
7)		
8)		
9)		
10)		

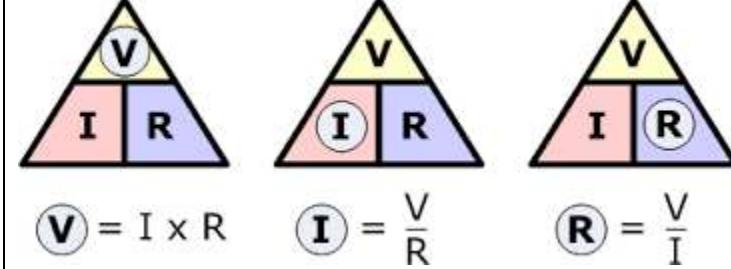
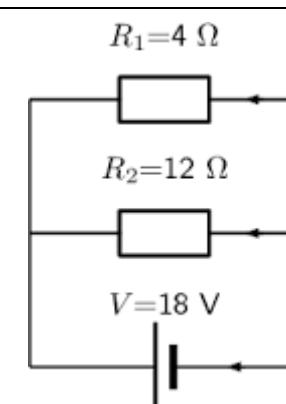


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TRADE : ELECTRICIAN	TYPE OF CLASS: THEORY	1ST YEAR CLASS NO:
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MAIN TOPIC / CHAPTER: OHM'S LAW - SIMPLE ELECTRICAL CIRCUITS AND PROBLEMS (NSQF LEVEL – 5)	NO OF CLASS IN THIS MAIN TOPIC / CHAPTER:4
SUB TOPIC : OHM'S LAW - SIMPLE ELECTRICAL CIRCUITS AND PROBLEMS	1 ST CLASS OF THE MAIN TOPIC
DURATION OF CLASS: 1 HOUR 20 MINTS	NCVT MAIN TOPIC WEEK NO-6-7

KEY POINTS & DESCRIPTION (AT LEAST 10 NOS PER CLASS)	EXAMPLE / INDUSTRY EXAMPLE	PHOTO / VIDEO / PRESENTATION/ WALL CHART
1) Ohm's Law		
2) Simple electrical circuits		
3) Application of Ohm's Law in circuit		\\SPITISERVER\\electrician\\COMMON\\Electrician 1st sem video Ohm's Law in circuit
4) Problems on electrical circuit		
5) Reading of simple Electrical Layout		



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TRADE : ELECTRICIAN	TYPE OF CLASS: THEORY	1ST YEAR CLASS NO:33
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MAIN TOPIC / CHAPTER: OHM'S LAW - SIMPLE ELECTRICAL CIRCUITS AND PROBLEMS (NSQF LEVEL – 5)	NO OF CLASS IN THIS MAIN TOPIC / CHAPTER:4
SUB TOPIC :	<u>2ND</u> CLASS OF THE MAIN TOPIC
DURATION OF CLASS: 1 HOUR 20 MINTS	NCVT MAIN TOPIC WEEK NO-7

KEY POINTS & DESCRIPTION (AT LEAST 10 NOS PER CLASS)	EXAMPLE / INDUSTRY EXAMPLE	PHOTO / VIDEO / PRESENTATION/ WALL CHART
1) Introduction		
2) Law of Resistance		
3) Series circuits		
4) parallel circuits		
5) Problems on series & parallel circuit		



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TRADE : ELECTRICIAN	TYPE OF CLASS: THEORY	1ST YEAR CLASS NO:34
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MAIN TOPIC / CHAPTER: OHM'S LAW - SIMPLE ELECTRICAL CIRCUITS AND PROBLEMS (NSQF LEVEL – 5)	NO OF CLASS IN THIS MAIN TOPIC / CHAPTER:4
SUB TOPIC : KIRCHOFF'S LAWS AND WHEATSTONE BRIDGE	<u>3RD</u> CLASS OF THE MAIN TOPIC
DURATION OF CLASS: 1 HOUR 20 MINTS	NCVT MAIN TOPIC WEEK NO-

KEY POINTS & DESCRIPTION (AT LEAST 10 NOS PER CLASS)	EXAMPLE / INDUSTRY EXAMPLE	PHOTO / VIDEO / PRESENTATION/ WALL CHART
1) Kirchoff's 1st Laws		
2) Problem on Kirchoff's 1st Laws		
3) Kirchoff's 2nd Laws		
4) Problem Kirchoff's 2nd Laws		\SPITISERVER\electrician\COMMON\Electrician 1st sem video Kirchoff's 2nd Laws
5) Wheatstone bridge principle		
6) Applications Wheatstone bridge		



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TRADE : ELCTRICIAN	TYPE OF CLASS: THEORY	1ST YEAR CLASS NO:35
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MAIN TOPIC / CHAPTER: OHM'S LAW - SIMPLE ELECTRICAL CIRCUITS AND PROBLEMS (NSQF LEVEL – 5)	NO OF CLASS IN THIS MAIN TOPIC / CHAPTER:4
SUB TOPIC : EFFECT OF VARIATION OF TEMPERATURE ON RESISTANCE & MEASURING THE VALUES OF RESISTANCE	___4 TH ___ CLASS OF THE MAIN TOPIC
DURATION OF CLASS: 1HOUR 20 MINTS	NCVT MAIN TOPIC WEEK NO-6-7

KEY POINTS & DESCRIPTION (AT LEAST 10 NOS PER CLASS)	EXAMPLE / INDUSTRY EXAMPLE	PHOTO / VIDEO / PRESENTATION/ WALL CHART
1) Introduction		
2) Effect of variation of temperature on resistance		
3) measuring the values of resistance		\
4)		
5)		
6)		
7)		
8)		
9)		
10)		



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TRADE : ELECTRICIAN	TYPE OF CLASS: THEORY	1ST YEAR CLASS NO:36
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MAIN TOPIC / CHAPTER: COMMON ELECTRICAL ACCESSORIES (NSQF LEVEL – 5)	NO OF CLASS IN THIS MAIN TOPIC / CHAPTER:4
SUB TOPIC : INTRODUCTION	<u>1ST</u> CLASS OF THE MAIN TOPIC
DURATION OF CLASS: 1 HOUR 20 MINTS	NCVT MAIN TOPIC WEEK NO-7-8

KEY POINTS & DESCRIPTION (AT LEAST 10 NOS PER CLASS)	EXAMPLE / INDUSTRY EXAMPLE	PHOTO / VIDEO / PRESENTATION/ WALL CHART
1) Introduction		
2) Electrical accessories		\SPITISERVER\electrician\COMMON\Electrician 1st sem video
3) Rating of accessories		\
4) Construction of accessories		
5) Mounting of accessories		
6)		
7)		
8)		
9)		
10)		



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TRADE : ELCTRICIAN	TYPE OF CLASS: THEORY	1ST YEAR CLASS NO:37
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MAIN TOPIC / CHAPTER: COMMON ELECTRICAL ACCESSORIES (NSQF LEVEL – 5)	NO OF CLASS IN THIS MAIN TOPIC / CHAPTER:4
SUB TOPIC : HOLDING ACCESSORIES	<u>2ND</u> CLASS OF THE MAIN TOPIC
DURATION OF CLASS: 1HOUR 20 MINTS	NCVT MAIN TOPIC WEEK NO-7-8

KEY POINTS & DESCRIPTION (AT LEAST 10 NOS PER CLASS)	EXAMPLE / INDUSTRY EXAMPLE	PHOTO / VIDEO / PRESENTATION/ WALL CHART
1) Holding accessories		
2) Explanation of switches, lamps, holders		
3) Description of plugs		
4) Developments of domestic circuits		

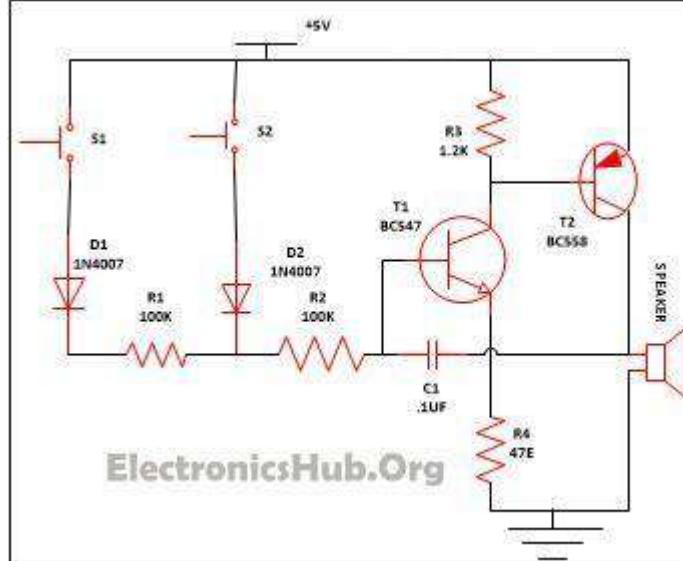


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TRADE : ELECTRICIAN	TYPE OF CLASS: THEORY	1ST YEAR CLASS NO:
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MAIN TOPIC / CHAPTER: COMMON ELECTRICAL ACCESSORIES (NSQF LEVEL – 5)	NO OF CLASS IN THIS MAIN TOPIC / CHAPTER:4
SUB TOPIC : ALARM & SWITCHES	<u>3RD</u> CLASS OF THE MAIN TOPIC
DURATION OF CLASS: 1 HOUR 20 MINTS	NCVT MAIN TOPIC WEEK NO-8

KEY POINTS & DESCRIPTION (AT LEAST 10 NOS PER CLASS)	EXAMPLE / INDUSTRY EXAMPLE	PHOTO / VIDEO / PRESENTATION/ WALL CHART
1) Description about alarm		
2) Circuit diagram of alarm		 <p>ElectronicsHub.Org</p>
3) Application of alarm		\
4) Description about switches		
5) Circuit diagram of switches		
6) Application of switches		
7) Two way switch		



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TRADE : ELCTRICIAN TYPE OF CLASS: THEORY 1ST YEAR CLASS NO:39

MAIN TOPIC / CHAPTER: COMMON ELECTRICAL ACCESSORIES (NSQF LEVEL – 5)	NO OF CLASS IN THIS MAIN TOPIC / CHAPTER:4
SUB TOPIC : SECURITY SURVEILLANCE, FIRE ALARM, ELCB & MCCB	<u>4TH</u> CLASS OF THE MAIN TOPIC
DURATION OF CLASS: 1HOUR 20 MINTS	NCVT MAIN TOPIC WEEK NO-7-8



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TRADE : ELECTRICIAN	TYPE OF CLASS: THEORY	1ST YEAR CLASS NO:40
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MAIN TOPIC / CHAPTER: CHEMICAL EFFECT OF ELECTRIC CURRENT PRINCIPLE OF ELECTROLYSIS (NSQF LEVEL – 5)	NO OF CLASS IN THIS MAIN TOPIC / CHAPTER: 3
SUB TOPIC : ELECTROLYSIS	1 ST CLASS OF THE MAIN TOPIC
DURATION OF CLASS: 1 HOUR 20 MINTS	NCVT MAIN TOPIC WEEK NO-8-9

KEY POINTS & DESCRIPTION (AT LEAST 10 NOS PER CLASS)	EXAMPLE / INDUSTRY EXAMPLE	PHOTO / VIDEO / PRESENTATION/ WALL CHART
1) Introduction		\SPITISERVER\electrician\COMMON\Electrician 1st sem video
2) Chemical effect of electric current		
3) Principle of electrolysis		\
4) Faraday's Law of electrolysis		
5) Basic principles of Electro-plating and Electro chemical equivalents		



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TRADE : ELECTRICIAN	TYPE OF CLASS: THEORY	1ST YEAR CLASS NO:41
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MAIN TOPIC / CHAPTER: CHEMICAL EFFECT OF ELECTRIC CURRENT PRINCIPLE OF ELECTROLYSIS (NSQF LEVEL – 5)	NO OF CLASS IN THIS MAIN TOPIC / CHAPTER:3
SUB TOPIC : ELECTROLYSIS	<u>2ND</u> CLASS OF THE MAIN TOPIC
DURATION OF CLASS: 1 HOUR 20 MINTS	NCVT MAIN TOPIC WEEK NO-9

KEY POINTS & DESCRIPTION (AT LEAST 10 NOS PER CLASS)	EXAMPLE / INDUSTRY EXAMPLE	PHOTO / VIDEO / PRESENTATION/ WALL CHART
1) Explanation of Anodes		
2) Explanation of cathodes		
3) Lead acid cell-description		
4) Methods of charging		
5) Methods of charging	TRICKLE, BOOSTING, PARALLEL CHARGING METHOD	
6)		
7)		
8)		
9)		
10)		



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MASTER TEACHING PLAN

TRADE : ELECTRICIAN	TYPE OF CLASS: THEORY	1ST YEAR CLASS NO:42
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MAIN TOPIC / CHAPTER: CHEMICAL EFFECT OF ELECTRIC CURRENT - PRINCIPLE OF ELECTROLYSIS (NSQF LEVEL – 5)	NO OF CLASS IN THIS MAIN TOPIC / CHAPTER:3
SUB TOPIC : ELECTROLYSIS	<u>3RD</u> CLASS OF THE MAIN TOPIC
DURATION OF CLASS: 1 HOUR 20 MINTS	NCVT MAIN TOPIC WEEK NO-8-9

KEY POINTS & DESCRIPTION (AT LEAST 10 NOS PER CLASS)	EXAMPLE / INDUSTRY EXAMPLE	PHOTO / VIDEO / PRESENTATION/ WALL CHART
1) Ni-cadmium & Lithium cell		
2) Cathodic protection		\SPITISERVER\electrician\COMMON\Electrician 1st sem video
3) Cathodic protection		\
4) Anodising		
5) Different types of lead acid cells		
6)		
7)		
8)		
9)		
10)		



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TRADE : ELCTRICIAN	TYPE OF CLASS: THEORY	1ST YEAR CLASS NO:
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MAIN TOPIC / CHAPTER: RECHARGEABLE DRY CELL (NSQF LEVEL – 5)	NO OF CLASS IN THIS MAIN TOPIC / CHAPTER:2
SUB TOPIC : RECHARGEABLE DRY CELL	__1ST__ CLASS OF THE MAIN TOPIC
DURATION OF CLASS: 1HOUR 20 MINTS	NCVT MAIN TOPIC WEEK NO-8-9

KEY POINTS & DESCRIPTION (AT LEAST 10 NOS PER CLASS)	EXAMPLE / INDUSTRY EXAMPLE	PHOTO / VIDEO / PRESENTATION/ WALL CHART
1) Introduction		
2) Description about rechargeable dry cell		\\SPITISERVER\\electrician\\COMMON\\Electrician 1st sem video
3) Advantages and disadvantages		\
4)		
5)		
6)		
7)		
8)		
9)		
10)		



SHUBHANKARI PRIVATE INDUSTRIAL TRAINING INSTITUTE, KAKDWIP MASTER TEACHING PLAN

TRADE : ELCTRICIAN	TYPE OF CLASS: THEORY	1ST YEAR CLASS NO:44
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MAIN TOPIC / CHAPTER: RECHARGEABLE DRY CELL (NSQF LEVEL – 5)	NO OF CLASS IN THIS MAIN TOPIC / CHAPTER:2
SUB TOPIC : RECHARGEABLE DRY CELL	<u>2ND</u> CLASS OF THE MAIN TOPIC
DURATION OF CLASS: 1HOUR 20 MINTS	NCVT MAIN TOPIC WEEK NO-8-9

KEY POINTS & DESCRIPTION (AT LEAST 10 NOS PER CLASS)	EXAMPLE / INDUSTRY EXAMPLE	PHOTO / VIDEO / PRESENTATION/ WALL CHART
1) Care and maintenance of cells		
2) Grouping of cells of specified voltage & current		
3) Sealed Maintenance free Batteries		\
4) Solar battery		
5)		
6)		
7)		
8)		
9)		
10)		

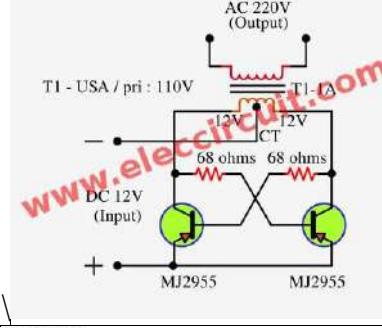
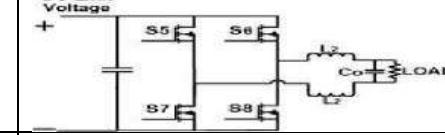
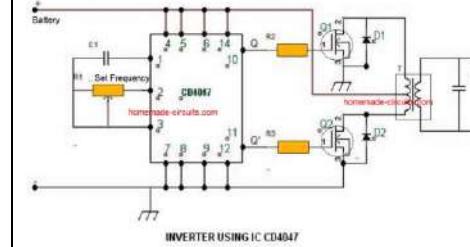
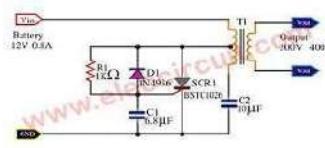


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MASTER TEACHING PLAN

TRADE : ELECTRICIAN	TYPE OF CLASS: THEORY	1ST YEAR CLASS NO:45
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MAIN TOPIC / CHAPTER: INVERTER, BATTERY CHARGER, UPS (NSQF LEVEL – 5)	NO OF CLASS IN THIS MAIN TOPIC / CHAPTER:
SUB TOPIC : INVERTER,	<u>1ST</u> CLASS OF THE MAIN TOPIC
DURATION OF CLASS: 1 HOUR 20 MINTS	NCVT MAIN TOPIC WEEK NO-9-10

KEY POINTS & DESCRIPTION (AT LEAST 10 NOS PER CLASS)	EXAMPLE / INDUSTRY EXAMPLE	PHOTO / VIDEO / PRESENTATION/ WALL CHART
1) Introduction		
2) Type of inverter	Single transistor inverter, Driven inverter, The two transformer inverter, Inverter using SCRs	\SPITISERVER\electrician\COMMON\Electrician 1st sem video inverter
3) Single transistor inverter- Description & diagram		
4) Driven inverter- Description & diagram		
5) The two transformer inverter- Description & diagram		
6) Inverter using SCRs- Description & diagram		
7)		



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MASTER TEACHING PLAN

TRADE : ELECTRICIAN	TYPE OF CLASS: THEORY	1ST YEAR CLASS NO:46
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MAIN TOPIC / CHAPTER: INVERTER, BATTERY CHARGER, UPS (NSQF LEVEL – 5)	NO OF CLASS IN THIS MAIN TOPIC / CHAPTER:4
SUB TOPIC : BATTERY CHARGER	2 ND CLASS OF THE MAIN TOPIC
DURATION OF CLASS: 1 HOUR 20 MINTS	NCVT MAIN TOPIC WEEK NO-9-10

KEY POINTS & DESCRIPTION (AT LEAST 10 NOS PER CLASS)	EXAMPLE / INDUSTRY EXAMPLE	PHOTO / VIDEO / PRESENTATION/ WALL CHART
1) BATTERY CHARGER		
2) Battery charger		
3) Charging method	Constant current method, constant potential method, rectifier method.	\SPITISERVER\electrician\COMMON\Electrician 1st sem video Charging method
4) Constant current method-Circuit diagram and description.		
5) Constant potential method- Circuit diagram and description.		
6) Rectifier method-Circuit diagram and description		
7)		

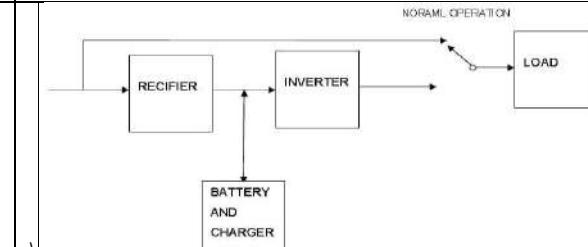
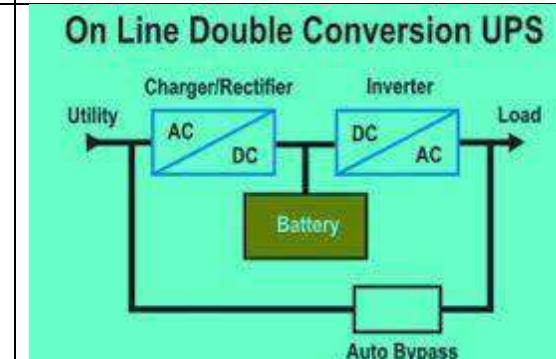


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MASTER TEACHING PLAN

TRADE : ELECTRICIAN	TYPE OF CLASS: THEORY	1ST YEAR. CLASS NO:47
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MAIN TOPIC / CHAPTER: INVERTER, BATTERY CHARGER, UPS (NSQF LEVEL – 5)	NO OF CLASS IN THIS MAIN TOPIC / CHAPTER:4
SUB TOPIC : UPS	<u>3rd</u> CLASS OF THE MAIN TOPIC
DURATION OF CLASS: 1 HOUR 20 MINTS	NCVT MAIN TOPIC WEEK NO-11

KEY POINTS & DESCRIPTION (AT LEAST 10 NOS PER CLASS)	EXAMPLE / INDUSTRY EXAMPLE	PHOTO / VIDEO / PRESENTATION/ WALL CHART
1) Introduction		
2) Classification of UPS		\SPITISERVER\electrician\COMMON\Electrician 1st sem video ups
3) Block diagram of OFF line UPS		
4) Description of block diagram OFF line UPS		
5) Block diagram of ON line UPS		
6) Description of block diagram ON line UPS		
7)		
8)		
9)		



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TRADE : ELECTRICIAN	TYPE OF CLASS: THEORY	1ST YEAR CLASS NO:48
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MAIN TOPIC / CHAPTER: INVERTER, BATTERY CHARGER, UPS (NSQF LEVEL – 5)	NO OF CLASS IN THIS MAIN TOPIC / CHAPTER:4
SUB TOPIC : general defects and remedies	4 th CLASS OF THE MAIN TOPIC
DURATION OF CLASS: 1 HOUR 20 MINTS	NCVT MAIN TOPIC WEEK NO-11

KEY POINTS & DESCRIPTION (AT LEAST 10 NOS PER CLASS)	EXAMPLE / INDUSTRY EXAMPLE	PHOTO / VIDEO / PRESENTATION/ WALL CHART
1) Lead Acid cell		\\SPITISERVER\\electrician\\COMMON\\Electrician 1st sem video Lead Acid cell
2) general defects & remedies		
3) Nickel Alkali Cell-description		\
4) Charging. Power & capacity of cells		
5) Efficiency of cells		
6)		
7)		
8)		
9)		
10)		



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TRADE : ELCTRICIAN	TYPE OF CLASS: THEORY	1ST YEAR CLASS NO:49
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MAIN TOPIC / CHAPTER: ALLIED TRADES (NSQF LEVEL – 5)	NO OF CLASS IN THIS MAIN TOPIC / CHAPTER:6
SUB TOPIC : ALLIED TRADES	<u>1st</u> CLASS OF THE MAIN TOPIC
DURATION OF CLASS: 1HOUR 20 MINTS	NCVT MAIN TOPIC WEEK NO-11-12

KEY POINTS & DESCRIPTION (AT LEAST 10 NOS PER CLASS)	EXAMPLE / INDUSTRY EXAMPLE	PHOTO / VIDEO / PRESENTATION/ WALL CHART
1) Introduction of fitting trade		
2) Safety precautions to be observed		
3) Description of files		\
4)		
5)		
6)		
7)		
8)		
9)		
10)		



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MASTER TEACHING PLAN

TRADE : ELCTRICIAN	TYPE OF CLASS: THEORY	1ST YEAR CLASS NO:50
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MAIN TOPIC / CHAPTER: ALLIED TRADES (NSQF LEVEL – 5)	NO OF CLASS IN THIS MAIN TOPIC / CHAPTER:
SUB TOPIC : ALLIED TRADES	2 nd _____ CLASS OF THE MAIN TOPIC
DURATION OF CLASS: 1HOUR 20 MINTS	NCVT MAIN TOPIC WEEK NO-11-12

KEY POINTS & DESCRIPTION (AT LEAST 10 NOS PER CLASS)	EXAMPLE / INDUSTRY EXAMPLE	PHOTO / VIDEO / PRESENTATION/ WALL CHART
1) Description of hammers		
2) Description of chisels		
3) Hacksaw frames & blades-their specification & grades		\
4)		
5)		
6)		
7)		
8)		
9)		
10)		



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MASTER TEACHING PLAN

TRADE : ELCTRICIAN	TYPE OF CLASS: THEORY	1ST YEAR CLASS NO:51
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MAIN TOPIC / CHAPTER: ALLIED TRADES (NSQF LEVEL – 5)	NO OF CLASS IN THIS MAIN TOPIC / CHAPTER:6
SUB TOPIC : ALLIED TRADES	<u>3rd</u> CLASS OF THE MAIN TOPIC
DURATION OF CLASS: 1HOUR 20 MINTS	NCVT MAIN TOPIC WEEK NO-11-12

KEY POINTS & DESCRIPTION (AT LEAST 10 NOS PER CLASS)	EXAMPLE / INDUSTRY EXAMPLE	PHOTO / VIDEO / PRESENTATION/ WALL CHART
1) Description of steel rule		
2) Care & maintenance of steel rule		
3) Description of try square		
4) Care & maintenance of try square		
5) Description of files.	Single cut, Double cut, Curved cut.	
6) Care & maintenance of files		
7)		
8)		
9)		



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MASTER TEACHING PLAN

TRADE : ELECTRICIAN	TYPE OF CLASS: THEORY	1ST YEAR CLASS NO:52
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MAIN TOPIC / CHAPTER: ALLIED TRADES (NSQF LEVEL – 5)	NO OF CLASS IN THIS MAIN TOPIC / CHAPTER:6
SUB TOPIC : ALLIED TRADES	<u>4th</u> CLASS OF THE MAIN TOPIC
DURATION OF CLASS: 1 HOUR 20 MINTS	NCVT MAIN TOPIC WEEK NO-11-12

KEY POINTS & DESCRIPTION (AT LEAST 10 NOS PER CLASS)	EXAMPLE / INDUSTRY EXAMPLE	PHOTO / VIDEO / PRESENTATION/ WALL CHART
1) Marking tools description	Centre punch, Prick punch, Firm joint calipers, Spring joint calipers	
2) Use of Centre punch		
3) Use of Prick punch		\
4) Use of Firm joint calipers		
5) Use of Spring joint calipers		
6)		
7)		
8)		
9)		
10)		



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MASTER TEACHING PLAN

TRADE : ELCTRICIAN	TYPE OF CLASS: THEORY	1ST YEAR CLASS NO:53
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MAIN TOPIC / CHAPTER: ALLIED TRADES (NSQF LEVEL – 5)	NO OF CLASS IN THIS MAIN TOPIC / CHAPTER:5 th
SUB TOPIC : ALLIED TRADES	_____CLASS OF THE MAIN TOPIC
DURATION OF CLASS: 1HOUR 20 MINTS	NCVT MAIN TOPIC WEEK NO-11-12

KEY POINTS & DESCRIPTION (AT LEAST 10 NOS PER CLASS)	EXAMPLE / INDUSTRY EXAMPLE	PHOTO / VIDEO / PRESENTATION/ WALL CHART
1) ALLIED TRADES		
2) Description of saws planes		
3) Description of chisels		\
4) Description of mallet		
5) Description of claw		
6)		
7)		
8)		
9)		
10)		



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MASTER TEACHING PLAN

TRADE : ELCTRICIAN	TYPE OF CLASS: THEORY	1ST YEAR CLASS NO:54
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MAIN TOPIC / CHAPTER: ALLIED TRADES (NSQF LEVEL – 5)	NO OF CLASS IN THIS MAIN TOPIC / CHAPTER:6
SUB TOPIC : ALLIED TRADES	___6 th ___ CLASS OF THE MAIN TOPIC
DURATION OF CLASS: 1HOUR 20 MINTS	NCVT MAIN TOPIC WEEK NO-11-12

KEY POINTS & DESCRIPTION (AT LEAST 10 NOS PER CLASS)	EXAMPLE / INDUSTRY EXAMPLE	PHOTO / VIDEO / PRESENTATION/ WALL CHART
1) Description of hammer		
2) Marking tools-Description		
3) Marking tools-their care and maintenance		\
4) Dividing tools-Description		
5) Dividing tools-their care and maintenance		
6) Holding tools-Description		
7) Holding tools-their care and maintenance		
8)		
9)		
10)		



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MASTER TEACHING PLAN

TRADE : ELECTRICIAN	TYPE OF CLASS: THEORY	1ST YEAR CLASS NO:55
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MAIN TOPIC / CHAPTER: MAGNETISM (NSQF LEVEL – 5)	NO OF CLASS IN THIS MAIN TOPIC / CHAPTER:7
SUB TOPIC : MAGNETISM	<u>1st</u> CLASS OF THE MAIN TOPIC
DURATION OF CLASS: 1 HOUR 20 MINTS	NCVT MAIN TOPIC WEEK NO-11-12

KEY POINTS & DESCRIPTION (AT LEAST 10 NOS PER CLASS)	EXAMPLE / INDUSTRY EXAMPLE	PHOTO / VIDEO / PRESENTATION/ WALL CHART
1) Introduction		
2) Classification of magnets	Natural magnets, Artificial magnets	
3) Types of artificial magnets & description	Temporary magnets, Permanent magnets.	\
4) Methods of magnetising		
5)		
6)		
7)		
8)		
9)		
10)		



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MASTER TEACHING PLAN

TRADE : ELECTRICIAN	TYPE OF CLASS: THEORY	1ST YEAR CLASS NO:56
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MAIN TOPIC / CHAPTER: MAGNETISM (NSQF LEVEL – 5)	NO OF CLASS IN THIS MAIN TOPIC / CHAPTER:7
SUB TOPIC : MAGNETISM	<u>2nd</u> CLASS OF THE MAIN TOPIC
DURATION OF CLASS: 1 HOUR 20 MINTS	NCVT MAIN TOPIC WEEK NO-12-13

KEY POINTS & DESCRIPTION (AT LEAST 10 NOS PER CLASS)	EXAMPLE / INDUSTRY EXAMPLE	PHOTO / VIDEO / PRESENTATION/ WALL CHART
1) Magnetic materials		
2) Properties of magnetic materials		
3) care and maintenance of magnetic material		\
4)		
5)		
6)		
7)		
8)		
9)		
10)		



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MASTER TEACHING PLAN

TRADE : ELCTRICIAN	TYPE OF CLASS: THEORY	1ST YEAR CLASS NO:57
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MAIN TOPIC / CHAPTER: MAGNETISM (NSQF LEVEL – 5)	NO OF CLASS IN THIS MAIN TOPIC / CHAPTER:7
SUB TOPIC : MAGNETISM	<u>3rd</u> CLASS OF THE MAIN TOPIC
DURATION OF CLASS: 1HOUR 20 MINTS	NCVT MAIN TOPIC WEEK NO-12-13

KEY POINTS & DESCRIPTION (AT LEAST 10 NOS PER CLASS)	EXAMPLE / INDUSTRY EXAMPLE	PHOTO / VIDEO / PRESENTATION/ WALL CHART
1) Ferromagnetic materials- Description		
2) Paramagnetic materials - Description		
3) Paramagnetic materials - Description		\
4) Principle of electro-magnetism		
5) Maxwell's corkscrew rule		
6)		
7)		
8)		
9)		
10)		



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MASTER TEACHING PLAN

TRADE : ELECTRICIAN	TYPE OF CLASS: THEORY	1ST YEAR CLASS NO:58
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MAIN TOPIC / CHAPTER: MAGNETISM (NSQF LEVEL – 5)	NO OF CLASS IN THIS MAIN TOPIC / CHAPTER:7
SUB TOPIC : MAGNETISM	<u>4th</u> CLASS OF THE MAIN TOPIC
DURATION OF CLASS: 1 HOUR 20 MINTS	NCVT MAIN TOPIC WEEK NO-12-14

KEY POINTS & DESCRIPTION (AT LEAST 10 NOS PER CLASS)	EXAMPLE / INDUSTRY EXAMPLE	PHOTO / VIDEO / PRESENTATION/ WALL CHART
1) Fleming's left hand rules		
2) Fleming's right hand rules		
3) Magnetic field of current carrying conductors		\
4)		
5)		
6)		
7)		
8)		



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MASTER TEACHING PLAN

TRADE : ELCTRICIAN	TYPE OF CLASS: THEORY	1ST YEAR CLASS NO:59
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MAIN TOPIC / CHAPTER: MAGNETISM (NSQF LEVEL – 5)	NO OF CLASS IN THIS MAIN TOPIC / CHAPTER:7
SUB TOPIC: MAGNETISM:	<u>5th</u> CLASS OF THE MAIN TOPIC
DURATION OF CLASS: 1HOUR 20 MINTS	NCVT MAIN TOPIC WEEK NO-12-13

KEY POINTS & DESCRIPTION (AT LEAST 10 NOS PER CLASS)	EXAMPLE / INDUSTRY EXAMPLE	PHOTO / VIDEO / PRESENTATION/ WALL CHART
1) Loop and solenoid		
2) MMF		
3) Flux density		\
4) Reluctance		
5) B.H. Curve		
6) Hysteresis		
7) Eddy current		
8)		
9)		
10)		



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MASTER TEACHING PLAN

TRADE : ELECTRICIAN	TYPE OF CLASS: THEORY	1ST YEAR CLASS NO:60
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MAIN TOPIC / CHAPTER: MAGNETISM (NSQF LEVEL – 5)	NO OF CLASS IN THIS MAIN TOPIC / CHAPTER:7
SUB TOPIC : MAGNETISM	_____ 6 th _ CLASS OF THE MAIN TOPIC
DURATION OF CLASS: 1 HOUR 20 MINTS	NCVT MAIN TOPIC WEEK NO-12- 13

KEY POINTS & DESCRIPTION (AT LEAST 10 NOS PER CLASS)	EXAMPLE / INDUSTRY EXAMPLE	PHOTO / VIDEO / PRESENTATION/ WALL CHART
1) Principle of electromagnetic induction		
2) Faraday's Law		
3) Lenz's Law		
4)		
5)		
6)		
7)		
8)		

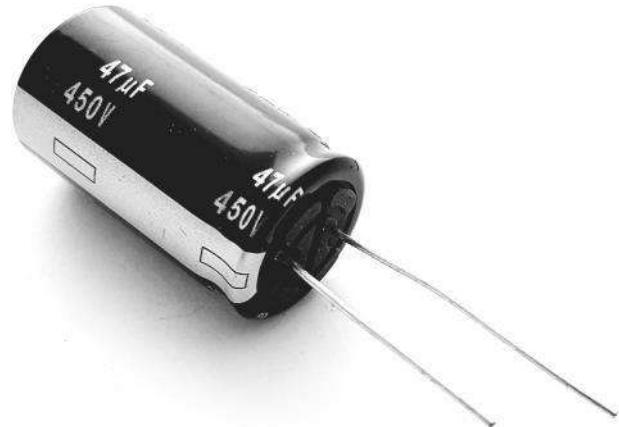


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MASTER TEACHING PLAN

TRADE : ELECTRICIAN	TYPE OF CLASS: THEORY	1ST YEAR CLASS NO:61
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MAIN TOPIC / CHAPTER: MAGNETISM (NSQF LEVEL – 5)	NO OF CLASS IN THIS MAIN TOPIC / CHAPTER:7
SUB TOPIC : MAGNETISM	<u>7th</u> CLASS OF THE MAIN TOPIC
DURATION OF CLASS: 1 HOUR 20 MINTS	NCVT MAIN TOPIC WEEK NO-13-14

KEY POINTS & DESCRIPTION (AT LEAST 10 NOS PER CLASS)	EXAMPLE / INDUSTRY EXAMPLE	PHOTO / VIDEO / PRESENTATION/ WALL CHART
1) Electrostatics		
2) Electrostatics		
3) Functions of capacitor		
4) Functions of capacitor		
5)		
6)		
7)		
8)		
9)		

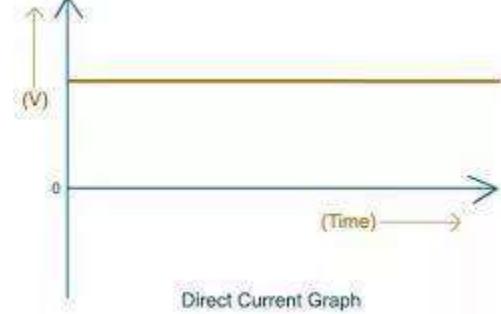
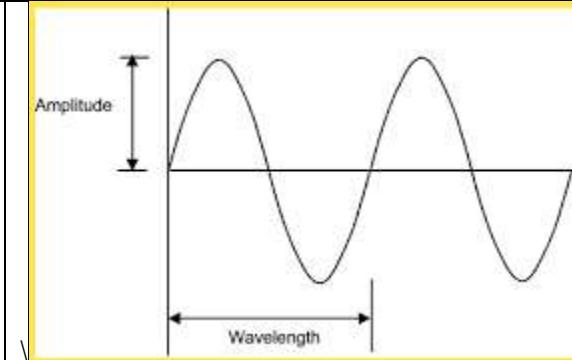


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MASTER TEACHING PLAN

TRADE : ELECTRICIAN	TYPE OF CLASS: THEORY	1ST YEAR CLASS NO:62
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MAIN TOPIC / CHAPTER: ALTERNATING CURRENT (NSQF LEVEL – 5)	NO OF CLASS IN THIS MAIN TOPIC / CHAPTER:6
SUB TOPIC : ALTERNATING CURRENT	1st CLASS OF THE MAIN TOPIC
DURATION OF CLASS: 1 HOUR 20 MINTS	NCVT MAIN TOPIC WEEK NO-13-14

KEY POINTS & DESCRIPTION (AT LEAST 10 NOS PER CLASS)	EXAMPLE / INDUSTRY EXAMPLE	PHOTO / VIDEO / PRESENTATION/ WALL CHART
1) Introduction		
2) Definition of Direct current with diagram		 <p>Direct Current Graph</p>
3) Definition of Alternating current with diagram		 <p>Amplitude</p> <p>Wavelength</p>
4) Comparison and Advantages of D.C and A.C		
5) Frequency		
6) Instantaneous value		
7)		
8)		



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MASTER TEACHING PLAN

TRADE : ELCTRICIAN	TYPE OF CLASS: THEORY	1ST YEAR CLASS NO:63
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MAIN TOPIC / CHAPTER: Instantaneous value (NSQF LEVEL – 5)	NO OF CLASS IN THIS MAIN TOPIC / CHAPTER:6
SUB TOPIC : Instantaneous value	2 nd CLASS OF THE MAIN TOPIC
DURATION OF CLASS: 1HOUR 20 MINTS	NCVT MAIN TOPIC WEEK NO-12-13

KEY POINTS & DESCRIPTION (AT LEAST 10 NOS PER CLASS)	EXAMPLE / INDUSTRY EXAMPLE	PHOTO / VIDEO / PRESENTATION/ WALL CHART
1) R.M.S. Value		
2) Average value		
3) Peak factor		\
4) Form factor		
5) Generation of sine wave		
6)		
7)		
8)		
9)		
10)		



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MASTER TEACHING PLAN

TRADE : ELECTRICIAN	TYPE OF CLASS: THEORY	1ST YEAR CLASS NO:64
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MAIN TOPIC / CHAPTER: ALTERNATING CURRENT (NSQF LEVEL – 5)	NO OF CLASS IN THIS MAIN TOPIC / CHAPTER:6
SUB TOPIC : ALTERNATING CURRENT	<u>3rd</u> CLASS OF THE MAIN TOPIC
DURATION OF CLASS: 1 HOUR 20 MINTS	NCVT MAIN TOPIC WEEK NO-13-14

KEY POINTS & DESCRIPTION (AT LEAST 10 NOS PER CLASS)	EXAMPLE / INDUSTRY EXAMPLE	PHOTO / VIDEO / PRESENTATION/ WALL CHART
1) Definition of phase		
2) Definition of phase difference		
3) Definition of inductive reactance		\
4) Definition of capacitive reactance		
5) Definition of impedance		
6) Definition of power factor		
7)		
8)		
9)		
10)		



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MASTER TEACHING PLAN

TRADE : ELECTRICIAN	TYPE OF CLASS: THEORY	1ST YEAR CLASS NO:65
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MAIN TOPIC / CHAPTER: ALTERNATING CURRENT (NSQF LEVEL – 5)	NO OF CLASS IN THIS MAIN TOPIC / CHAPTER:6
SUB TOPIC : ALTERNATING CURRENT	<u>4th</u> CLASS OF THE MAIN TOPIC
DURATION OF CLASS: 1 HOUR 20 MINTS	NCVT MAIN TOPIC WEEK NO-13-14

KEY POINTS & DESCRIPTION (AT LEAST 10 NOS PER CLASS)	EXAMPLE / INDUSTRY EXAMPLE	PHOTO / VIDEO / PRESENTATION/ WALL CHART
1) Active power		
2) Active power		
3) Simple problems on A.C. Circuits, single Phase and three-phase system etc.		\
4)		
5)		
6)		
7)		
8)		
9)		
10)		



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MASTER TEACHING PLAN

TRADE : ELCTRICIAN	TYPE OF CLASS: THEORY	1ST YEAR CLASS NO:66
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MAIN TOPIC / CHAPTER: ALTERNATING CURRENT (NSQF LEVEL – 5)	NO OF CLASS IN THIS MAIN TOPIC / CHAPTER:6
SUB TOPIC : ALTERNATING CURRENT	<u>5th</u> CLASS OF THE MAIN TOPIC
DURATION OF CLASS: 1HOUR 20 MINTS	NCVT MAIN TOPIC WEEK NO-13-14

KEY POINTS & DESCRIPTION (AT LEAST 10 NOS PER CLASS)	EXAMPLE / INDUSTRY EXAMPLE	PHOTO / VIDEO / PRESENTATION/ WALL CHART
1) Power consumption in series circuit		
2) Power consumption in series circuit		
3) Calculation of power and power factor		\
4)		
5)		
6)		
7)		
8)		
9)		
10)		

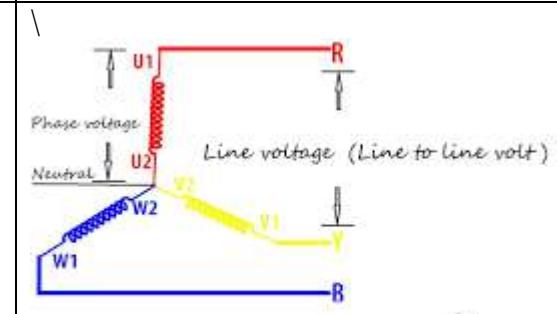
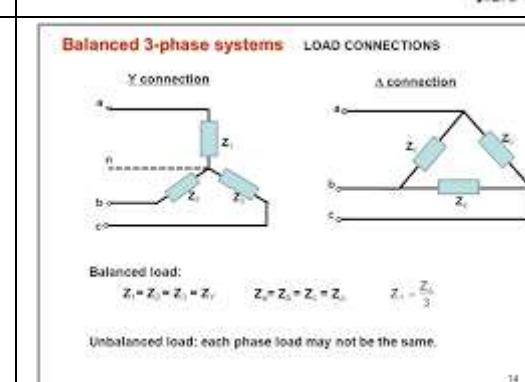


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MASTER TEACHING PLAN

TRADE : ELECTRICIAN	TYPE OF CLASS: THEORY	1ST YEAR CLASS NO:67
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MAIN TOPIC / CHAPTER: ALTERNATING CURRENT (NSQF LEVEL – 5)	NO OF CLASS IN THIS MAIN TOPIC / CHAPTER:6
SUB TOPIC : ALTERNATING CURRENT	6 th CLASS OF THE MAIN TOPIC
DURATION OF CLASS: 1 HOUR 20 MINTS	NCVT MAIN TOPIC WEEK NO-13-14

KEY POINTS & DESCRIPTION (AT LEAST 10 NOS PER CLASS)	EXAMPLE / INDUSTRY EXAMPLE	PHOTO / VIDEO / PRESENTATION/ WALL CHART
1) Concept three-phase		
2) Concept three-phase		
3) Line and phase voltage		
4) Current and power in a 3 phase circuits with balanced and unbalanced load		
5)		
6)		
7)		
8)		

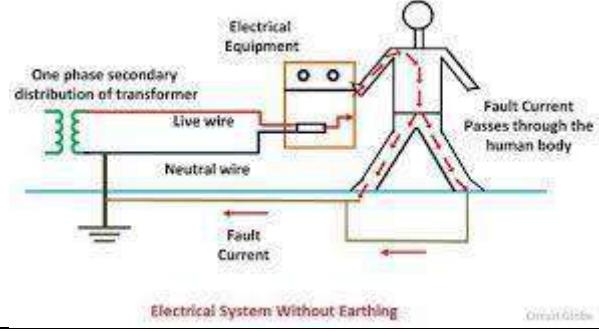


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MASTER TEACHING PLAN

TRADE : ELECTRICIAN	TYPE OF CLASS: THEORY	1ST YEAR CLASS NO:68
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MAIN TOPIC / CHAPTER: EARTHING (NSQF LEVEL – 5)	NO OF CLASS IN THIS MAIN TOPIC / CHAPTER:4
SUB TOPIC : EARTHING	<u>1st</u> CLASS OF THE MAIN TOPIC
DURATION OF CLASS: 1 HOUR 20 MINTS	NCVT MAIN TOPIC WEEK NO-13-14

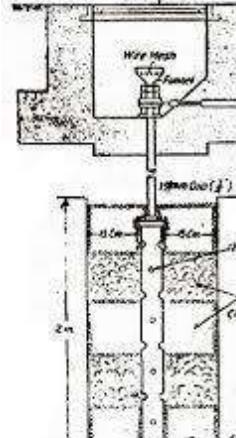
KEY POINTS & DESCRIPTION (AT LEAST 10 NOS PER CLASS)	EXAMPLE / INDUSTRY EXAMPLE	PHOTO / VIDEO / PRESENTATION/ WALL CHART
1) Introduction		
2) Principle of earthing		 <p>Electrical System Without Earthing</p> <p>Electrical Equipment</p> <p>One phase secondary distribution of transformer</p> <p>Live wire</p> <p>Neutral wire</p> <p>Fault Current Passes through the human body</p> <p>Fault Current</p> <p>Ground</p>
3) Explain the reasons for system and equipment earthing		\
4) State the terminal losses related to earthing		
5) Different methods of earthing	Pipe earthing , Plate earthing etc	
6)		
7)		
8)		
9)		
10)		



**SHUBHANKARI PRIVATE INDUSTRIAL TRAINING INSTITUTE, KAKDWIP
MASTER TEACHING PLAN**

TRADE : ELCTRICIAN TYPE OF CLASS: THEORY 1ST YEAR CLASS NO:69

MAIN TOPIC / CHAPTER: EARTHING (NSQF LEVEL – 5)	NO OF CLASS IN THIS MAIN TOPIC / CHAPTER:4
SUB TOPIC : PIPE EARTHING	___2 nd ___ CLASS OF THE MAIN TOPIC
DURATION OF CLASS: 1HOUR 20 MINTS	NCVT MAIN TOPIC WEEK NO-13-14

KEY POINTS & DESCRIPTION (AT LEAST 10 NOS PER CLASS)	EXAMPLE / INDUSTRY EXAMPLE	PHOTO / VIDEO / PRESENTATION/ WALL CHART
1) Pipe earthing - description with drawing		
2)		
3)		\
4)		
5)		
6)		
7)		



**SHUBHANKARI PRIVATE INDUSTRIAL TRAINING INSTITUTE, KAKDWIP
MASTER TEACHING PLAN**

TRADE : ELECTRICIAN TYPE OF CLASS: THEORY 1ST YEAR CLASS NO:70

MAIN TOPIC / CHAPTER: EARTHING (NSQF LEVEL – 5)	NO OF CLASS IN THIS MAIN TOPIC / CHAPTER:4
SUB TOPIC : PLATE EARTHING	___3 rd ___ CLASS OF THE MAIN TOPIC
DURATION OF CLASS: 1HOUR 20 MINTS	NCVT MAIN TOPIC WEEK NO-14-15



SHUBHANKARI PRIVATE INDUSTRIAL TRAINING INSTITUTE, KAKDWIP

MASTER TEACHING PLAN

TRADE : ELCTRICIAN	TYPE OF CLASS: THEORY	1ST YEAR CLASS NO:71
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MAIN TOPIC / CHAPTER: EARTHING (NSQF LEVEL – 5)	NO OF CLASS IN THIS MAIN TOPIC / CHAPTER:4
SUB TOPIC : EARTH RESISTANCE TESTER	<u>4th</u> CLASS OF THE MAIN TOPIC
DURATION OF CLASS: 1HOUR 20 MINTS	NCVT MAIN TOPIC WEEK NO-14-15

KEY POINTS & DESCRIPTION (AT LEAST 10 NOS PER CLASS)	EXAMPLE / INDUSTRY EXAMPLE	PHOTO / VIDEO / PRESENTATION/ WALL CHART
1) Earth resistance tester-Introduction		
2) Earth resistance tester-Construction		
3) Method of measuring earth resistance		\
4) Earth Leakage Circuit Breaker(ELCB)		
5)		
6)		
7)		



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MASTER TEACHING PLAN

TRADE: Electrician	TYPE OF CLASS: THEORY	1ST YEAR CLASS NO:72
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MAIN TOPIC / CHAPTER:BASIC ELECTRONICS (NSQF LEVEL-5)	NO OF CLASS IN THIS MAIN TOPIC / CHAPTER:16
SUB TOPIC :OSCILLOSCOPE	1 ST CLASS OF THE MAIN TOPIC
DURATION OF CLASS:1 HOUR 20 MINTS	NCVT WEEK NO.1-2

KEY POINTS & DESCRIPTION (AT LEAST 10 NOS PER CLASS)	EXAMPLE / INDUSTRY EXAMPLE	PHOTO / VIDEO / PRESENTATION/ WALL CHART
1)INTRODUCTION		
2)CONSTRUCTION		Fig.1
3)PARTS OF OSCILLOSCOPE	1)ELECTRON GUN 2)DEFLECTING PLATES 3)FLUORESCENT SCREEN	
4) ELECTRON GUN		
5) ELECTRON GUN USES		
6)		
7)		
8)		
9)		
10)		
11)		
12)		

SIGNATURE OF TRADE INSTRUCTORS



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MASTER TEACHING PLAN

TRADE: ELECTRICIAN	TYPE OF CLASS: THEORY	1ST YEAR CLASS NO:73
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MAIN TOPIC / CHAPTER:BASIC ELECTRONICS(NSQF LEVEL-5)	NO OF CLASS IN THIS MAIN TOPIC / CHAPTER:16
SUB TOPIC :OSCILLOSCOPE	2 ND CLASS OF THE MAIN TOPIC
DURATION OF CLASS:1 HOUR 20 MINTS	NCVT WEEK NO.1-2

KEY POINTS & DESCRIPTION (AT LEAST 10 NOS PER CLASS)	EXAMPLE / INDUSTRY EXAMPLE	PHOTO / VIDEO / PRESENTATION/ WALL CHART
1) DEFLECTING PLATES		
2) DEFLECTING PLATES USES		
3) FLUORESCENT SCREEN	1)ELECTRON GUN 2)DEFLECTING PLATES 3)FLUORESCENT SCREEN	Fig.2
4) FLUORESCENT SCREEN USES		
5) PRECUTION OF OSCILLOSCOPE		
6)		
7)		
8)		
9)		
10)		
11)		
12)		



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MASTER TEACHING PLAN

TRADE: ELECTRICIAN	TYPE OF CLASS: THEORY	1ST YEAR CLASS NO:74
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MAIN TOPIC / CHAPTER:BASIC ELECTRONICS(NSQF LEVEL-5)	NO OF CLASS IN THIS MAIN TOPIC / CHAPTER:16
SUB TOPIC :OSCILLOSCOPE	3 RD CLASS OF THE MAIN TOPIC
DURATION OF CLASS:1 HOUR 20 MINTS	NCVT WEEK NO.1-2

KEY POINTS & DESCRIPTION (AT LEAST 10 NOS PER CLASS)	EXAMPLE / INDUSTRY EXAMPLE	PHOTO / VIDEO / PRESENTATION/ WALL CHART
1)WORKING PRINCIPLE OF OSCILLOSCOPE		
2) SIGNAL GENERATOR		
3) FUNCTION OF SIGNAL GENERATOR	EXTERNAL MODULATION,INTERNAL MODULATION,AUDIO OUTPUT	
4) APPLICATION		
5) CONTANT VOLTAGE GENERATOR		
6)		
7)		
8)		
9)		
10)		
11)		
12)		

SIGNATURE OF TRADE INSTRUCTORS



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MASTER TEACHING PLAN

TRADE: ELECTRICIAN	TYPE OF CLASS: THEORY	1ST YEAR CLASS NO:75
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MAIN TOPIC / CHAPTER:BASIC ELECTRONICS(NSQF LEVEL-5)	NO OF CLASS IN THIS MAIN TOPIC / CHAPTER:16
SUB TOPIC : TRANSISTORS	4 TH CLASS OF THE MAIN TOPIC
DURATION OF CLASS:1 HOUR 20 MINTS	NCVT WEEK NO.1-2

KEY POINTS & DESCRIPTION (AT LEAST 10 NOS PER CLASS)	EXAMPLE / INDUSTRY EXAMPLE	PHOTO / VIDEO / PRESENTATION/ WALL CHART
1)INTRODUCTION		
2) TYPES OF TRANSISTORS	PNP, NPN TRANSISTORS	
3) TRANSISTORS CONSTRUCTION		Fig.3
4) PNP TRANSISTORS		
5) NPN TRANSISTORS		
6)		
7)		
8)		
9)		
10)		
11)		
12)		



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MASTER TEACHING PLAN

TRADE: ELECTRICIAN	TYPE OF CLASS: THEORY	1ST YEAR CLASS NO:76
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MAIN TOPIC / CHAPTER:BASIC ELECTRONICS(NSQF LEVEL-5)	NO OF CLASS IN THIS MAIN TOPIC / CHAPTER:16
SUB TOPIC : TRANSISTORS	5 TH CLASS OF THE MAIN TOPIC
DURATION OF CLASS:1 HOUR 20 MINTS	NCVT WEEK NO.1-2

KEY POINTS & DESCRIPTION (AT LEAST 10 NOS PER CLASS)	EXAMPLE / INDUSTRY EXAMPLE	PHOTO / VIDEO / PRESENTATION/ WALL CHART
1) SPECIFICATION TRANSISTORS	PNP, NPN TRANSISTORS	
2) RATING OF TRANSISTORS		
3) EXPLANATION OF TRANSISTORS AMPLIFIERS		
4) TRANSISTORS ACTION		
5) POWER GAIN	OUTPUT CURRENT X INPUT VOLTAGE/INPUT CURRENT X INPUT VOLTAGE	
6)		
7)		
8)		
9)		
10)		
11)		
12)		

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MASTER TEACHING PLAN

TRADE: ELECTRICIAN	TYPE OF CLASS: THEORY	1ST YEAR CLASS NO:77
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MAIN TOPIC / CHAPTER:BASIC ELECTRONICS(NSQF LEVEL-5)	NO OF CLASS IN THIS MAIN TOPIC / CHAPTER:16
SUB TOPIC :AMPLIFIERS	6 TH CLASS OF THE MAIN TOPIC
DURATION OF CLASS:1 HOUR 20 MINTS	NCVT WEEK NO.1-2

KEY POINTS & DESCRIPTION (AT LEAST 10 NOS PER CLASS)	EXAMPLE / INDUSTRY EXAMPLE	PHOTO / VIDEO / PRESENTATION/ WALL CHART
1) SPECIFICATION AMPLIFIERS	PNP, NPN TRANSISTORS	
2) RATING OF AMPLIFIERS		
3) EXPLANATION OF AMPLIFIERS		Fig.4
4) AMPLIFIERS ACTION		
5) AMPLIFIERS POWER GAIN	OUTPUT CURRENT X INPUT VOLTAGE/INPUT CURRENT X INPUT VOLTAGE	
6)		
7)		
8)		
9)		
10)		
11)		
12)		

SIGNATURE OF TRADE INSTRUCTORS



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MASTER TEACHING PLAN

TRADE: ELECTRICIAN	TYPE OF CLASS: THEORY	1ST YEAR CLASS NO:78
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MAIN TOPIC / CHAPTER:BASIC ELECTRONICS(NSQF LEVEL-5)	NO OF CLASS IN THIS MAIN TOPIC / CHAPTER:16
SUB TOPIC : AMPLIFIERS	6 TH CLASS OF THE MAIN TOPIC
DURATION OF CLASS:1 HOUR 20 MINTS	NCVT WEEK NO.1-2

KEY POINTS & DESCRIPTION (AT LEAST 10 NOS PER CLASS)	EXAMPLE / INDUSTRY EXAMPLE	PHOTO / VIDEO / PRESENTATION/ WALL CHART
1) SPECIFICATION AMPLIFIERS RATING	CLASS-A	
2) SPECIFICATION AMPLIFIERS RATING	CLASS-B	
3) SPECIFICATION AMPLIFIERS RATING	CLASS-C	
4) PARAMETER OF AMPLIFIER	HIGH, LOW, MEDIUM, PARAMETER	
5) SYSTEM OF AMPLIFING		Fig.5
6) POWWER AMPLIFIER		
7)		
8)		
9)		
10)		
11)		
12)		

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MASTER TEACHING PLAN

TRADE: ELECTRICIAN	TYPE OF CLASS: THEORY	1ST YEAR CLASS NO:79
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MAIN TOPIC / CHAPTER:BASIC ELECTRONICS(NSQF LEVEL-5)	NO OF CLASS IN THIS MAIN TOPIC / CHAPTER:16
SUB TOPIC : TRANSISTORS AND AMPLIFIERS	8 TH CLASS OF THE MAIN TOPIC
DURATION OF CLASS:1 HOUR 20 MINTS	NCVT WEEK NO.1-2

KEY POINTS & DESCRIPTION (AT LEAST 10 NOS PER CLASS)	EXAMPLE / INDUSTRY EXAMPLE	PHOTO / VIDEO / PRESENTATION/ WALL CHART
1) CLASS TEST OF TRANSISTOR AND AMPLIFIER		
2)		
3)		
4)		
5)		
6)		
7)		
8)		
9)		
10)		
11)		
12)		

SIGNATURE OF TRADE INSTRUCTORS



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MASTER TEACHING PLAN

TRADE: ELECTRICIAN	TYPE OF CLASS: THEORY	1ST YEAR CLASS NO:80
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MAIN TOPIC / CHAPTER:BASIC ELECTRONICS(NSQF LEVEL-5)	NO OF CLASS IN THIS MAIN TOPIC / CHAPTER:16
SUB TOPIC : OSICILATION	9 TH CLASS OF THE MAIN TOPIC
DURATION OF CLASS:1 HOUR 20 MINTS	NCVT WEEK NO.3-4

KEY POINTS & DESCRIPTION (AT LEAST 10 NOS PER CLASS)	EXAMPLE / INDUSTRY EXAMPLE	PHOTO / VIDEO / PRESENTATION/ WALL CHART
1)EXPLANATION OF OSICILATION		
2) WORKING PRINCIPLE		
3) TYPE OF STAGE		
4) EXPLANATION OF STAGE		
5) TYPES OF STAGE		
6)MULTI VIBRATOR		
7)		
8)		
9)		
10)		
11)		
12)		

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MASTER TEACHING PLAN

TRADE: ELECTRICIAN	TYPE OF CLASS: THEORY	1ST YEAR CLASS NO:81
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MAIN TOPIC / CHAPTER:BASIC ELECTRONICS(NSQF LEVEL-5)	NO OF CLASS IN THIS MAIN TOPIC / CHAPTER:16
SUB TOPIC: TYPES OF ELECTRONICS COMPONENTS	10 TH CLASS OF THE MAIN TOPIC
DURATION OF CLASS:1 HOUR 20 MINTS	NCVT WEEK NO.3-4

KEY POINTS & DESCRIPTION (AT LEAST 10 NOS PER CLASS)	EXAMPLE / INDUSTRY EXAMPLE	PHOTO / VIDEO / PRESENTATION/ WALL CHART
1) INTRODUCTION		
2) SPECIFICATION OF UJT		
3) TYPES OF UJT	FORWORD TYPES, REVERSE TYPES	
4) WORKING PRINCIPAL OF UJT		Fig.6
5) CONTROLING CIRCUIT OF UJT		
6)		
7)		
8)		
9)		
10)		
11)		
12)		

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MASTER TEACHING PLAN

TRADE: ELECTRICIAN	TYPE OF CLASS: THEORY	1ST YEAR CLASS NO:82
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MAIN TOPIC / CHAPTER:BASIC ELECTRONICS(NSQF LEVEL-5)	NO OF CLASS IN THIS MAIN TOPIC / CHAPTER:16
SUB TOPIC : TYPES OF ELECTRONICS COMPONENTS	11 TH CLASS OF THE MAIN TOPIC
DURATION OF CLASS:1 HOUR 20 MINTS	NCVT WEEK NO.3-4

KEY POINTS & DESCRIPTION (AT LEAST 10 NOS PER CLASS)	EXAMPLE / INDUSTRY EXAMPLE	PHOTO / VIDEO / PRESENTATION/ WALL CHART
1) INTRODUCTION		
2) SPECIFICATION OF FET		
3) TYPES OF FET	BIAS TYPE ,NON BIAS TYPE	
4) WORKING PRINCIPLE OF FET		Fig.7
5) CONTROLLING CIRCUIT OF FET		
6)		
7)		
8)		
9)		
10)		
11)		
12)		

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MASTER TEACHING PLAN

TRADE: ELECTRICIAN	TYPE OF CLASS: THEORY	1ST YEAR CLASS NO:83
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MAIN TOPIC / CHAPTER:BASIC ELECTRONICS(NSQF LEVEL-5)	NO OF CLASS IN THIS MAIN TOPIC / CHAPTER:16
SUB TOPIC : TYPES OF ELECTRONICS COMPONENTS	12 TH CLASS OF THE MAIN TOPIC
DURATION OF CLASS:1 HOUR 20 MINTS	NCVT WEEK NO.3-4

KEY POINTS & DESCRIPTION (AT LEAST 10 NOS PER CLASS)	EXAMPLE / INDUSTRY EXAMPLE	PHOTO / VIDEO / PRESENTATION/ WALL CHART
1) INTRODUCTION OF SCR		
2) SPECIFICATION OF SCR		
3) WORKING PRINCIPLE OF SCR		Fig.8
4) INTRODUCTION OF DIAC		
5) SPECIFICATION OF DIAC		
6) WORKING PRINCIPLE OF DIAC		Fig.9
7)		
8)		
9)		
10)		
11)		
12)		

SIGNATURE OF TRADE INSTRUCTORS



SHUBHANKARI PRIVATE INDUSTRIAL TRAINING INSTITUTE, KAKDWIP
MASTER TEACHING PLAN

TRADE: ELECTRICIAN	TYPE OF CLASS: THEORY	1ST YEAR CLASS NO:84
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MAIN TOPIC / CHAPTER:BASIC ELECTRONICS(NSQF LEVEL-5)	NO OF CLASS IN THIS MAIN TOPIC / CHAPTER:16
SUB TOPIC : TYPES OF ELECTRONICS COMPONENT	13 TH CLASS OF THE MAIN TOPIC
DURATION OF CLASS:1 HOUR 20 MINTS	NCVT WEEK NO.3-4

KEY POINTS & DESCRIPTION (AT LEAST 10 NOS PER CLASS)	EXAMPLE / INDUSTRY EXAMPLE	PHOTO / VIDEO / PRESENTATION/ WALL CHART
1) INTRODUCTION OF TRIAC		
2) SPECIFICATION OF TRIAC		Fig.10
3) INTRODUCTION OF POWER MOSFET		
4) SPECIFICATION OF POWER MOSFET		Fig.11
5) INTRODUCTION OF G.T.O		
6) SPECIFICATION OF G.T.O		Fig.12
7) INTRODUCTION OF I.G.B.T		
8) SPECIFICATION OF I.G.B.T		Fig.13
9)		
10)		
11)		
12)		

SIGNATURE OF TRADE INSTRUCTOR



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MASTER TEACHING PLAN

TRADE: ELECTRICIAN	TYPE OF CLASS: THEORY	1ST YEAR CLASS NO:85
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MAIN TOPIC / CHAPTER:BASIC ELECTRONICS(NSQF LEVEL-5)	NO OF CLASS IN THIS MAIN TOPIC / CHAPTER:16
SUB TOPIC : DIGITAL ELECTRONICS	14 TH CLASS OF THE MAIN TOPIC
DURATION OF CLASS:1 HOUR 20 MINTS	NCVT WEEK NO.3-4

KEY POINTS & DESCRIPTION (AT LEAST 10 NOS PER CLASS)	EXAMPLE / INDUSTRY EXAMPLE	PHOTO / VIDEO / PRESENTATION/ WALL CHART
1) INTRODUCTION		
2) CLASIFICATION OF DIGITAL ELECTRONIC	BINARY NUMBER,LOGIC GATE,	
3) BINARY SYSTEM		
4) CALCULATION OF BINARY SYSTEM		
5) PROBLEMS OF BINARY SYSTEM		
6)		
7)		
8)		
9)		
10)		
11)		
12)		

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MASTER TEACHING PLAN

TRADE: ELECTRICIAN	TYPE OF CLASS: THEORY	1ST YEAR CLASS NO:86
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MAIN TOPIC / CHAPTER:BASIC ELECTRONICS(NSQF LEVEL-5)	NO OF CLASS IN THIS MAIN TOPIC / CHAPTER:16
SUB TOPIC : DIGITAL ELECTRONICS	15 TH CLASS OF THE MAIN TOPIC
DURATION OF CLASS:1 HOUR 20 MINTS	NCVT WEEK NO.3-4

KEY POINTS & DESCRIPTION (AT LEAST 10 NOS PER CLASS)	EXAMPLE / INDUSTRY EXAMPLE	PHOTO / VIDEO / PRESENTATION/ WALL CHART
1) CLASS TEST OF TRANSISTOR AND AMPLIFIER		
2) INTRODUCTION		
3) TYPES OF LOGIC GATE		Fig.14
4) LOGIC GATE		
5) CALCULATION OF LOGIC GATE		
6) PROBLEM OF LOGIC GATE		
7) COMBINATIONAL CIRCUITS		
8)		
9)		
10)		
11)		
12)		

SIGNATURE OF TRADE INSTRUCTORS



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MASTER TEACHING PLAN

TRADE: ELECTRICIAN	TYPE OF CLASS: THEORY	1ST YEAR CLASS NO:87
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MAIN TOPIC / CHAPTER:BASIC ELECTRONICS(NSQF LEVEL-5)	NO OF CLASS IN THIS MAIN TOPIC / CHAPTER:16
SUB TOPIC : DIGITAL ELECTRONICS	16 TH CLASS OF THE MAIN TOPIC
DURATION OF CLASS:1 HOUR 20 MINTS	NCVT WEEK NO:3-4

KEY POINTS & DESCRIPTION (AT LEAST 10 NOS PER CLASS)	EXAMPLE / INDUSTRY EXAMPLE	PHOTO / VIDEO / PRESENTATION/ WALL CHART
1)) CLASS TEST OF TRANSISTOR AND DIGITAL ELECTRONICS		
2)		
3)		
4)		
5)		
6)		
7)		
8)		
9)		
10)		
11)		
12)		

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Fig 1

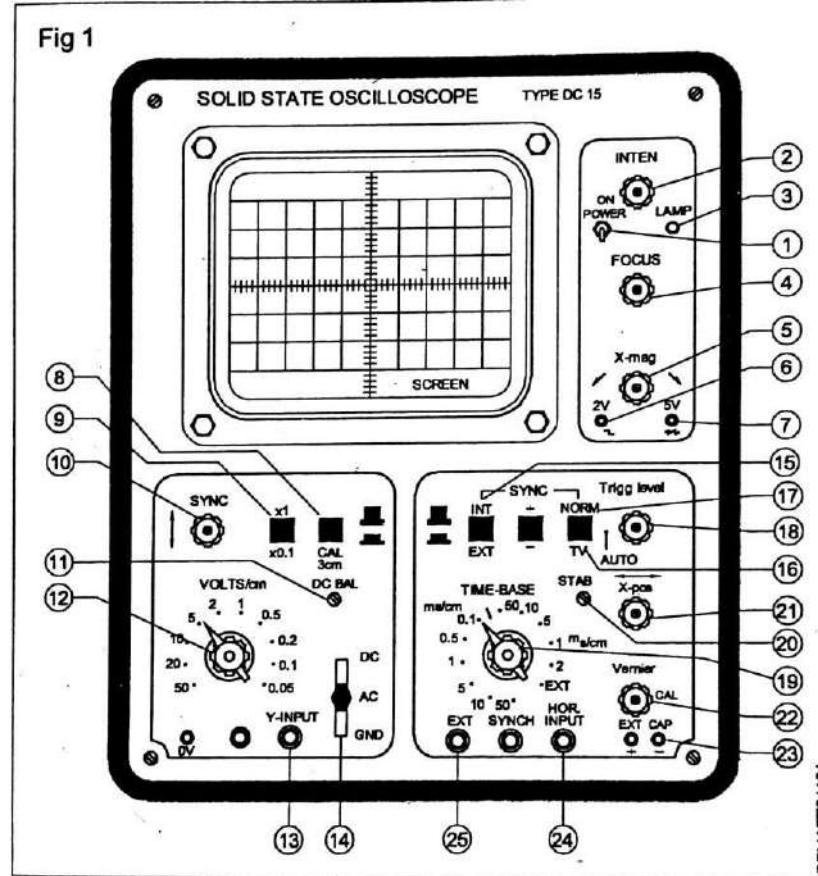


Fig. 1

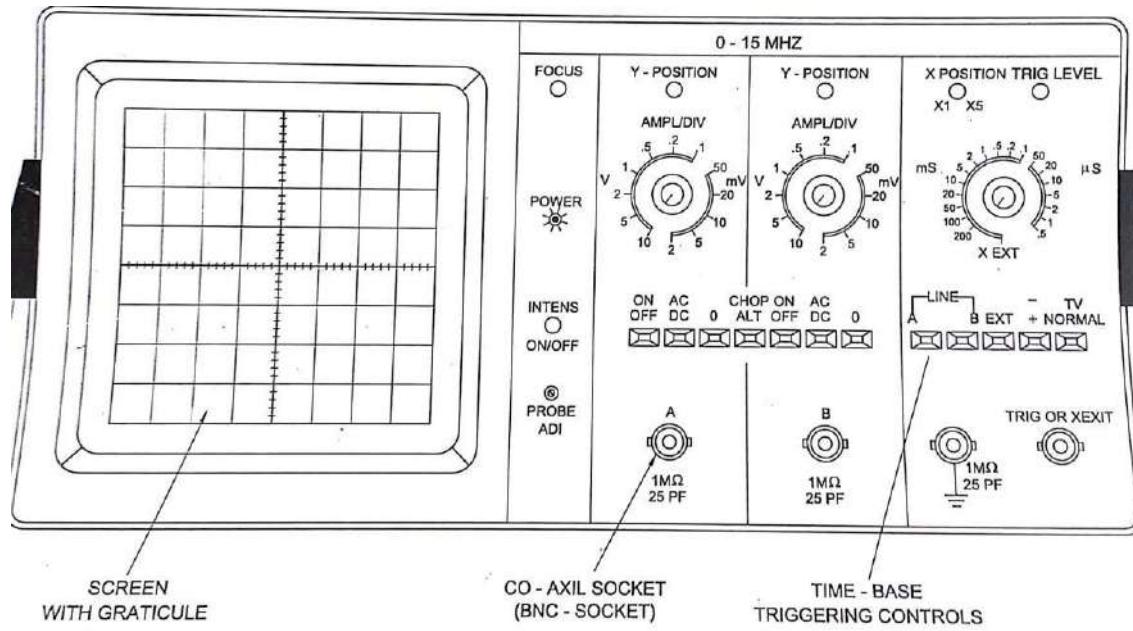


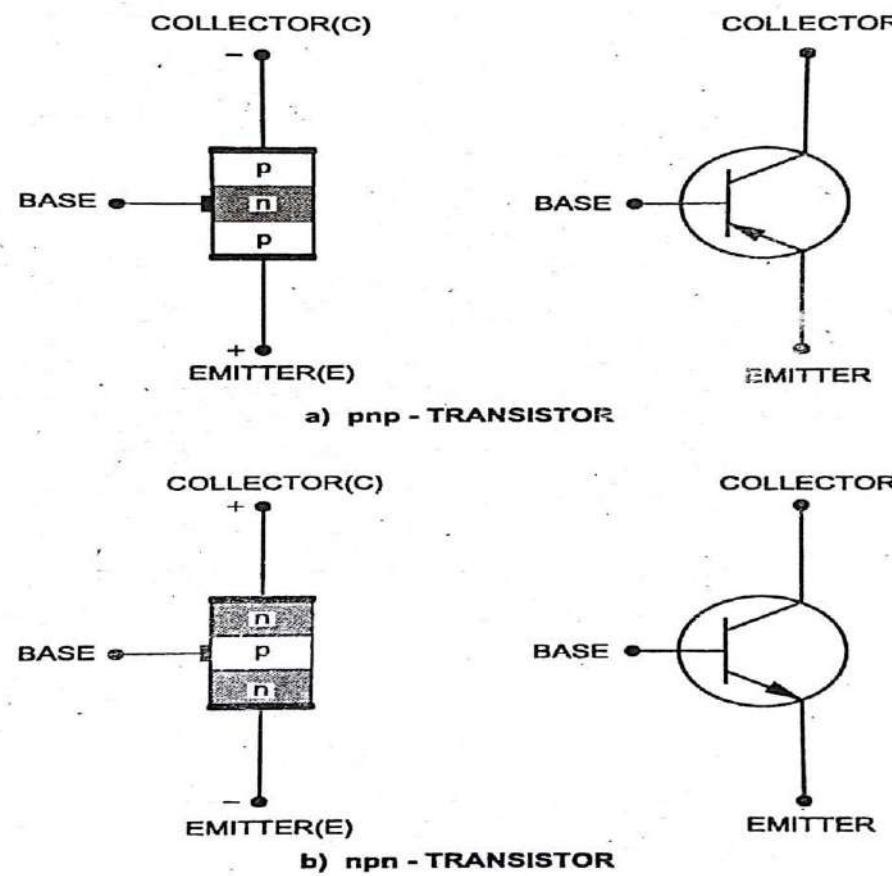
Fig.2



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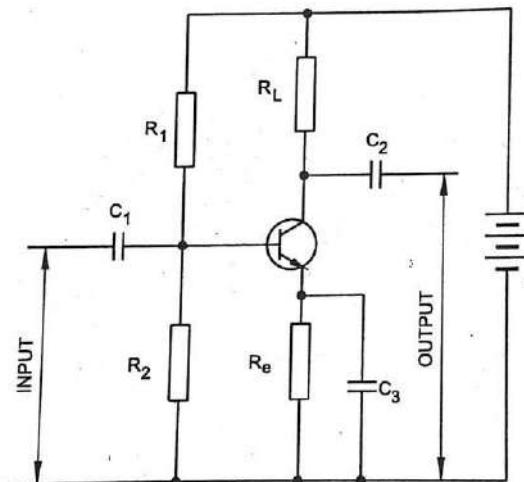
Fig 2



EL281612

Fig.3

Fig 1



RESISTORS

$R_1 = 22\text{k}\Omega$
 $R_2 = 5\text{k}\Omega$
 $R_L = 3.3\text{k}\Omega$
 $R_e = 0.5\text{k}\Omega$

CAPACITORS

$C_1 = 10 \mu\text{F}$
 $C_2 = 10 \mu\text{F}$
 $C_3 = 200 \mu\text{F}$

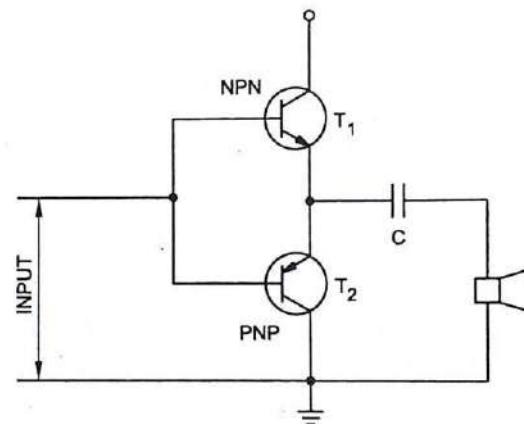
Fig.4



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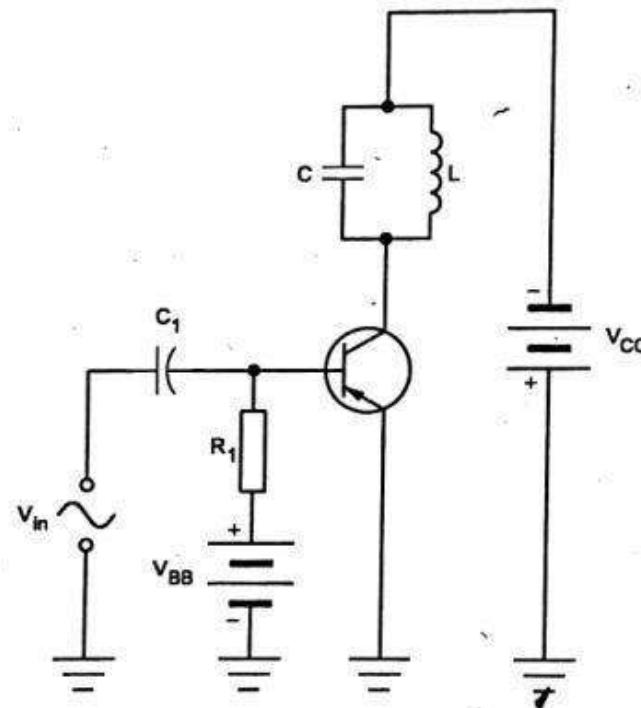
Fig 4



EL282014

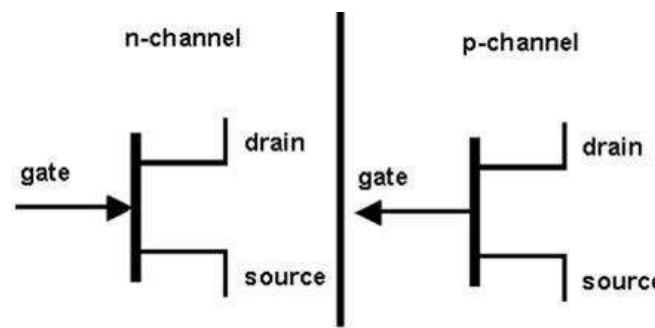
Fig.5

Fig 2



EL282812

Fig.6



Field-Effect Transistor

Fig.7



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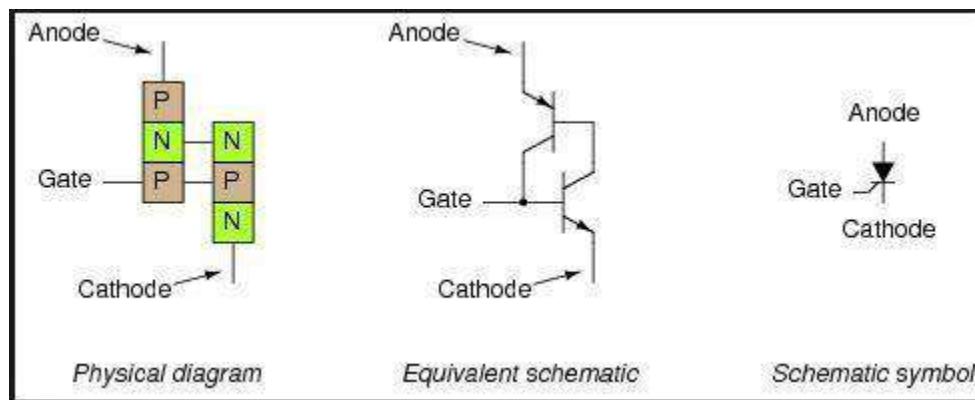


Fig.8

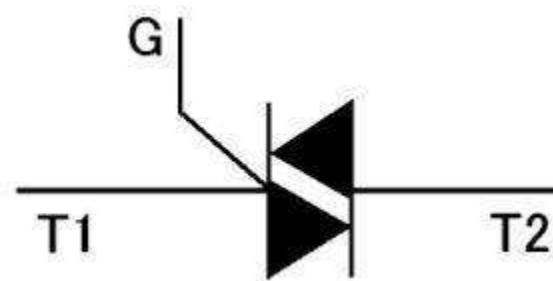


Fig.9

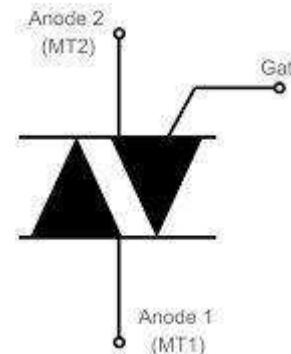


Fig.10

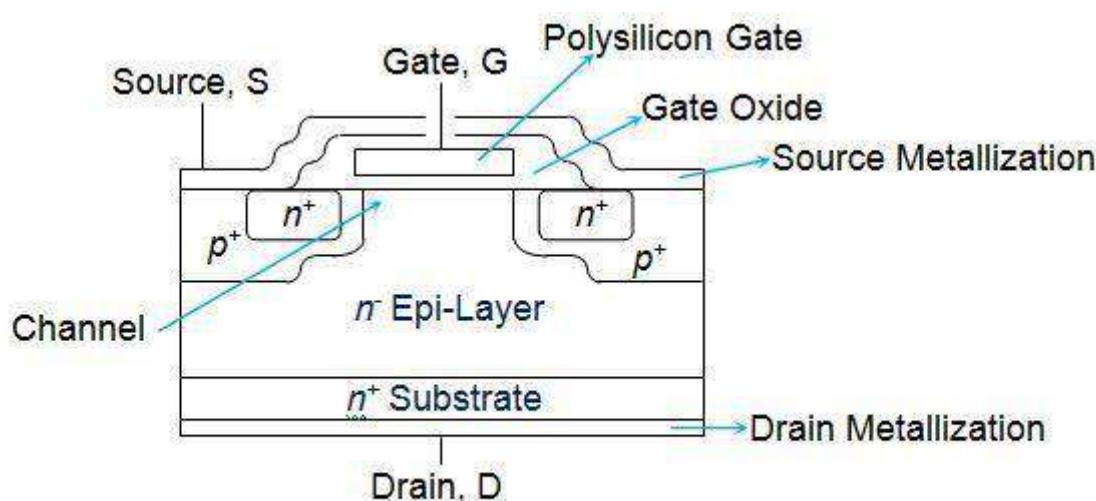


Figure 1 Schematic of n-substrate Power MOSFET

Fig.11



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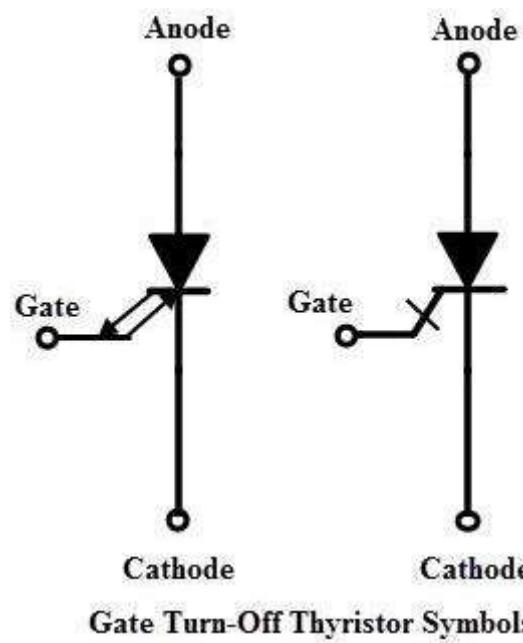


Fig.12

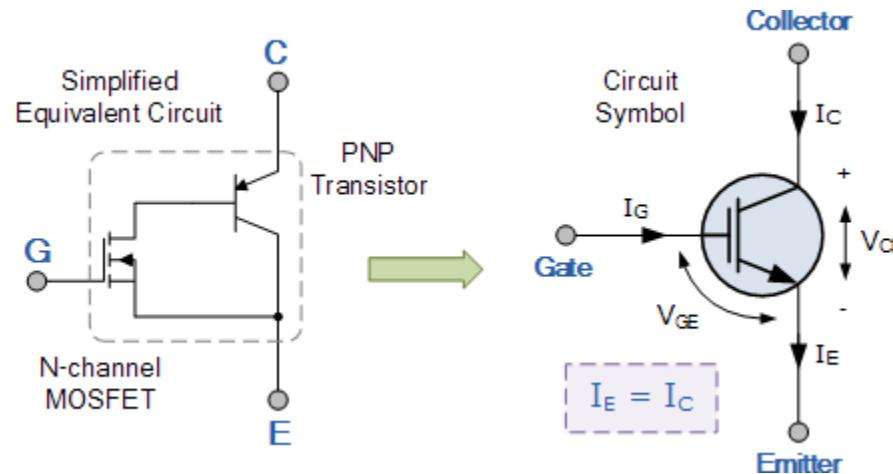


Fig.13

Logic Gates

Name	NOT	AND	NAND	OR	NOR	XOR	XNOR																																																																																																
Alg. Expr.	\bar{A}	AB	$\bar{A}\bar{B}$	$A+B$	$\bar{A}+\bar{B}$	$A \oplus B$	$\bar{A} \oplus \bar{B}$																																																																																																
Symbol																																																																																																							
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Fig.14



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MASTER TEACHING PLAN

TRADE: Electrician	TYPE OF CLASS: THEORY	1ST YEAR CLASS NO:88
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MAIN TOPIC / CHAPTER: Electric wirings (NSQF LEVEL-5)	NO OF CLASS IN THIS MAIN TOPIC / CHAPTER: 11
SUB TOPIC : Types of wirings	<u>1</u> ST CLASS OF THE MAIN TOPIC
DURATION OF CLASS: 1 HOUR 20 MINTS	NCVT WEEK NO:5-6

KEY POINTS & DESCRIPTION (AT LEAST 10 NOS PER CLASS)	EXAMPLE / INDUSTRY EXAMPLE	PHOTO / VIDEO / PRESENTATION/ WALL CHART
1) Electric wirings---- I.E. rules.		
2) Domestic and industrial. Wiring Types...	Use in Different Purposes in Home & Industrial	
3) Introduction of Domestic Wiring and Methods		
4) A. Temporary wiring		
5) B. Permanent wiring		
6) Definition of temporary wiring		
7) i. Flexible wire wiring	Use for marriages fairs etc.	
8) ii. Cleat wiring	Use for home.	Fig.15
9) Definition of permanent wiring		Fig.16
10) i. Casing-capping wiring	Use for residential buildings only.	
11)		
12)		



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MASTER TEACHING PLAN

TRADE: Electrician	TYPE OF CLASS: THEORY	1ST YEAR CLASS NO:89
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MAIN TOPIC / CHAPTER: Electric wirings (NSQF LEVEL-5)	NO OF CLASS IN THIS MAIN TOPIC / CHAPTER: \11
SUB TOPIC : Permanent wiring	<u>2ND</u> CLASS OF THE MAIN TOPIC
DURATION OF CLASS: 1 HOUR 20 MINTS	NCVT WEEK NO:5-6

KEY POINTS & DESCRIPTION (AT LEAST 10 NOS PER CLASS)	EXAMPLE / INDUSTRY EXAMPLE	PHOTO / VIDEO / PRESENTATION/ WALL CHART
1) C.T.S/ T.R.S wiring	Residential , hospital, office.	
2) Lead sheathed wiring	Residential , hospital, office. It is very expensive.	
3) Conduit pipe wiring	Hospital, office etc.	
4) Duct wiring	Hospital, office , cinema hall etc.	
5)PROCESS OF INSTALLATION		
6)		
7)		
8)		
9)		
10)		
11)		

SIGNATURE OF TRADE INSTRUCTORS



SHUBHANKARI PRIVATE INDUSTRIAL TRAINING INSTITUTE, KAKDWIP

MASTER TEACHING PLAN

TRADE: Electrician	TYPE OF CLASS: THEORY	1ST YEAR CLASS NO: 90
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MAIN TOPIC / CHAPTER: Electric wirings (NSQF LEVEL-5)	NO OF CLASS IN THIS MAIN TOPIC / CHAPTER:11
SUB TOPIC : Adv.& Dis. Adv of Wiring	3 RD CLASS OF THE MAIN TOPIC
DURATION OF CLASS: 1 HOUR 20 MINTS	NCVT WEEK NO:5-6

KEY POINTS & DESCRIPTION (AT LEAST 10 NOS PER CLASS)	EXAMPLE / INDUSTRY EXAMPLE	PHOTO / VIDEO / PRESENTATION/ WALL CHART
1) Temporary wiring. A. Flexible-wire wiring Adv. & Dis. Adv And Precaution	Use for marriages fairs etc.	
2) B. Cleat wiring Adv. & Dis. Adv And Precaution		
C. Permanent Casing capping wiring Adv. & Dis. Adv And Precaution		
3) Batten wiring Adv. & Dis. Adv And Precaution.		
4) Lead sheathed wiring Adv. & Dis. Adv And Precaution		
6)		
7)		
8)		
9)		
10)		
11)		
12)		

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SHUBHANKARI PRIVATE INDUSTRIAL TRAINING INSTITUTE, KAKDWIP

MASTER TEACHING PLAN

TRADE:ELECTRICIAN	TYPE OF CLASS: THEORY	1ST YEAR CLASS NO: 91
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MAIN TOPIC / CHAPTER: ELECTRICAL WIRING(NSQF LEVEL-5)	NO OF CLASS IN THIS MAIN TOPIC / CHAPTER:11
SUB TOPIC : Adv.& Dis. Adv of Wiring and IE Rules	4 TH CLASS OF THE MAIN TOPIC
DURATION OF CLASS: 1 HOUR 20 MINTS	NCVT WEEK NO:5-6

KEY POINTS & DESCRIPTION (AT LEAST 10 NOS PER CLASS)	EXAMPLE / INDUSTRY EXAMPLE	PHOTO / VIDEO / PRESENTATION/ WALL CHART
1) Conduit pipe wiring Adv. & Dis. Adv And Precaution.		
2) Duct wiring Adv. & Dis. Adv And Precaution.		
3) I.E OR I.S. RULES.		
4) General introduction of IE rules with 17 points.		
5) Introduction of tests for wiring as per IE rules before supplying mains.		
7)		
8)		
9)		
10)		
11)		
12)		

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MASTER TEACHING PLAN

TRADE: ELECTRICIAN	TYPE OF CLASS: THEORY	1ST YEAR CLASS NO:92
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MAIN TOPIC / CHAPTER: ELECTRICAL WIRING(NSQF LEVEL-5)	NO OF CLASS IN THIS MAIN TOPIC / CHAPTER:11
SUB TOPIC : MEGGER	5 TH CLASS OF THE MAIN TOPIC
DURATION OF CLASS: 1 HOUR 20 MINTS	NCVT WEEK NO:5-6

KEY POINTS & DESCRIPTION (AT LEAST 10 NOS PER CLASS)	EXAMPLE / INDUSTRY EXAMPLE	PHOTO / VIDEO / PRESENTATION/ WALL CHART
1) Introduction of Megger.		
2) Construction of Megger.		
3) Working principle of Megger.		
3) Precaution of Megger.		
4) Use of Megger.	Testing the leakage of an Installation.	
5) Selection of the wiring system	Distance from fire points Type of buildings Cost of wiring etc	
7)		
8)		
9)		
10)		
11)		
12)		

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SHUBHANKARI PRIVATE INDUSTRIAL TRAINING INSTITUTE, KAKDWIP

MASTER TEACHING PLAN

TRADE:ELECTRICIAN	TYPE OF CLASS: THEORY	1ST YEAR CLASS NO:93
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MAIN TOPIC / CHAPTER:ELECTRICAL WIRING(NSQF LEVEL-5)	NO OF CLASS IN THIS MAIN TOPIC / CHAPTER:11
SUB TOPIC : Material required for wiring	6 TH CLASS OF THE MAIN TOPIC
DURATION OF CLASS: 1 HOUR 20 MINTS	NCVT WEEK NO:5-6

KEY POINTS & DESCRIPTION (AT LEAST 10 NOS PER CLASS)	EXAMPLE / INDUSTRY EXAMPLE	PHOTO / VIDEO / PRESENTATION/ WALL CHART
1) Material required for wiring		Fig.18
2) Electrical accessories	Switch, holder	Fig.19
3) Wires	VIR and PVC	Fig.20
4) Wooden screw	12 mm-16mm	
5) PVC pipe	Passing the wires	
6) Wooden board and plug	75X25mm	
7) Distribution board	Used for Controlling the wiring system	
8) Main switch board	Used to ON and OFF An Electric installation	
9) Meter Board	It is Fitted by the Electric distribution department	
10)		

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SHUBHANKARI PRIVATE INDUSTRIAL TRAINING INSTITUTE, KAKDWIP

MASTER TEACHING PLAN

TRADE: ELECTRICIAN	TYPE OF CLASS: THEORY	1ST YEAR CLASS NO:94
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MAIN TOPIC / CHAPTER: :ELECTRICAL WIRING(NSQF LEVEL-5)	NO OF CLASS IN THIS MAIN TOPIC / CHAPTER:11
SUB TOPIC : Preparation FOR Wiring	7 TH CLASS OF THE MAIN TOPIC
DURATION OF CLASS: 1 HOUR 20 MINTS	NCVT WEEK NO:5-6

KEY POINTS & DESCRIPTION (AT LEAST 10 NOS PER CLASS)	EXAMPLE / INDUSTRY EXAMPLE	PHOTO / VIDEO / PRESENTATION/ WALL CHART
1) To prepare wiring diagram	Wiring lay-out	
2) To Estimate	Costing of materials or BOM	
3) Marking	Walls marking Horizontal & Vertical	
4) To fix the Wooden Gutties		
5) METHODS OF WIRING		
6) A. Looping Method Adv. & Dis. Adv		Fig.20
7) B. Connector Method Adv. & Dis. Adv		
8) C. Tree Method Adv. & Dis. Adv		
9)		
10)		
11)		
12)		

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SHUBHANKARI PRIVATE INDUSTRIAL TRAINING INSTITUTE, KAKDWIP

MASTER TEACHING PLAN

TRADE: Electrician	TYPE OF CLASS: THEORY	1ST YEAR CLASS NO: 95
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MAIN TOPIC / CHAPTER: Electric wirings (NSQF LEVEL-5)	NO OF CLASS IN THIS MAIN TOPIC / CHAPTER:11
SUB TOPIC : Testing of Wiring	8 TH CLASS OF THE MAIN TOPIC
DURATION OF CLASS: 1 HOUR 20 MINTS	NCVT WEEK NO:5-6

KEY POINTS & DESCRIPTION (AT LEAST 10 NOS PER CLASS)	EXAMPLE / INDUSTRY EXAMPLE	PHOTO / VIDEO / PRESENTATION/ WALL CHART
1. Insulation Resistance Test Between the Conductor & Earth	By Using of Megger	
2. Test the wiring and result the Leakage current		
3. Insulation Resistance Test Between the Conductor	By Using of Megger	
4. Continuity Test	By Using of Megger	
5. Polarity test of the Switch	By Using of Megger	
6) GENERAL FAULT OF ELECTRICAL INSTALLATION		
7) A. Short Ckt		
8) B. Leakage CKT		
9) C. Open Ckt		
10) D. Fuse Wire Burninh		
11) E. Earthing		



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MASTER TEACHING PLAN

TRADE: Electrician	TYPE OF CLASS: THEORY	1ST YEAR CLASS NO:96
MAIN TOPIC / CHAPTER: Electric wirings (NSQF LEVEL-5)		NO OF CLASS IN THIS MAIN TOPIC / CHAPTER:11
SUB TOPIC : LIGHTING CIRCUITS		<u>9</u> _TH CLASS OF THE MAIN TOPIC
DURATION OF CLASS: 1 HOUR 20 MINTS		NCVT WEEK NO:5-6

KEY POINTS & DESCRIPTION (AT LEAST 10 NOS PER CLASS)	EXAMPLE / INDUSTRY EXAMPLE	PHOTO / VIDEO / PRESENTATION/ WALL CHART
1) LIGHITING CIRCUIT		
2) Draw Schematic Diagrams for typical wiring Circuit.	Nimi- pg-87	
3) A. Bedroom Lighting		
4) B. Corridor lighting Circuit		
5) C. Series /parallel ckt		
6) D. Two way center off swich to control one lamp bright and two lamps dim.		
7) E. Master switch control		
8) ESTIMATION OF LOAD		
9) SELECTION OF CABLE SIZE		
10) TYPE OF SUPPLY		
11) LOAD CALCULATION METHOD		
12)		



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MASTER TEACHING PLAN

TRADE: Electrician	TYPE OF CLASS: THEORY	1ST YEAR CLASS NO:97
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MAIN TOPIC / CHAPTER: Electric wirings (NSQF LEVEL-5)	NO OF CLASS IN THIS MAIN TOPIC / CHAPTER:11
SUB TOPIC :APPLICATION OF WIRINGS	<u>10</u> TH CLASS OF THE MAIN TOPIC
DURATION OF CLASS: 1 HOUR 20 MINTS	NCVT WEEK NO:5-6

KEY POINTS & DESCRIPTION (AT LEAST 10 NOS PER CLASS)	EXAMPLE / INDUSTRY EXAMPLE	PHOTO / VIDEO / PRESENTATION/ WALL CHART
1) Location of lamp points		
2) Drawing room, kitchen, bedroom, dining room, hall, gallery, store room etc.		
3) SHORT QUESTION AND ANSWER DISCUSSION AND WRITING		
4) Electrical wiring		
5) Type of wiring		
6) Testing		
7)		
8)		
9)		
10)		
11)		
12)		



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MASTER TEACHING PLAN

TRADE: ELECTRICIAN	TYPE OF CLASS: THEORY	1ST YEAR CLASS NO:98
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MAIN TOPIC / CHAPTER: Electric wirings (NSQF LEVEL-5)	NO OF CLASS IN THIS MAIN TOPIC / CHAPTER:11
SUB TOPIC : WIRING SYSTEM	11 TH CLASS OF THE MAIN TOPIC
DURATION OF CLASS:1 HOUR 20 MINTS	NCVT WEEK NO:3-4

KEY POINTS & DESCRIPTION (AT LEAST 10 NOS PER CLASS)	EXAMPLE / INDUSTRY EXAMPLE	PHOTO / VIDEO / PRESENTATION/ WALL CHART
1)) CLASS TEST OF TRANSISTOR AND ELECTRICAL WIRING		
2)		
3)		
4)		
5)		
6)		
7)		
8)		
9)		
10)		
11)		
12)		

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Fig 1

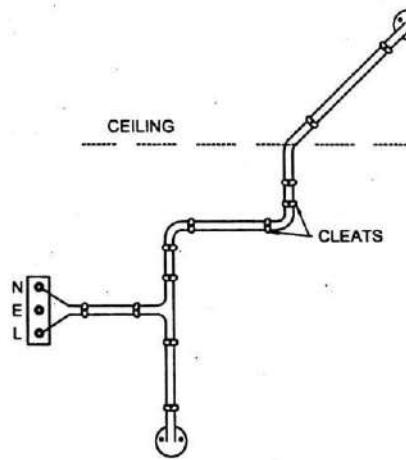
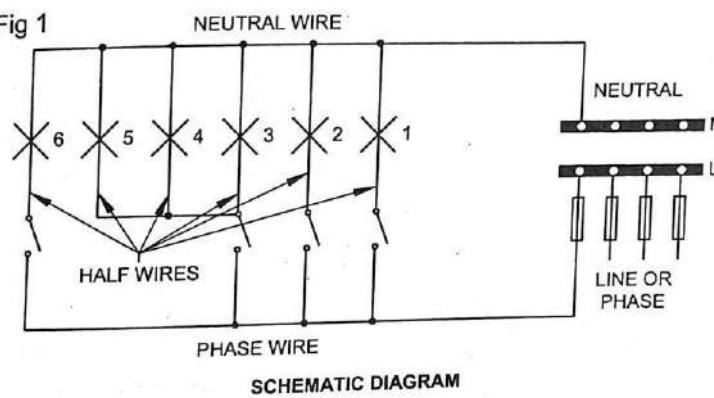


Fig. 15

Fig 1



SCHEMATIC DIAGRAM

Fig.16

Fig 1



COUPLERS

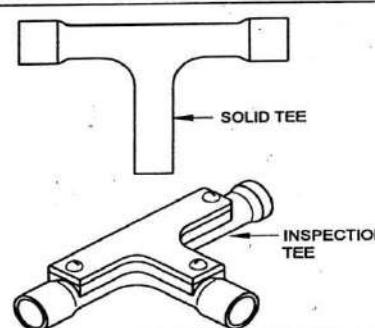


INSPECTION TYPE COUPLER
TYPES OF COUPLERS

EL152111

Fig.17

Fig 4



152114

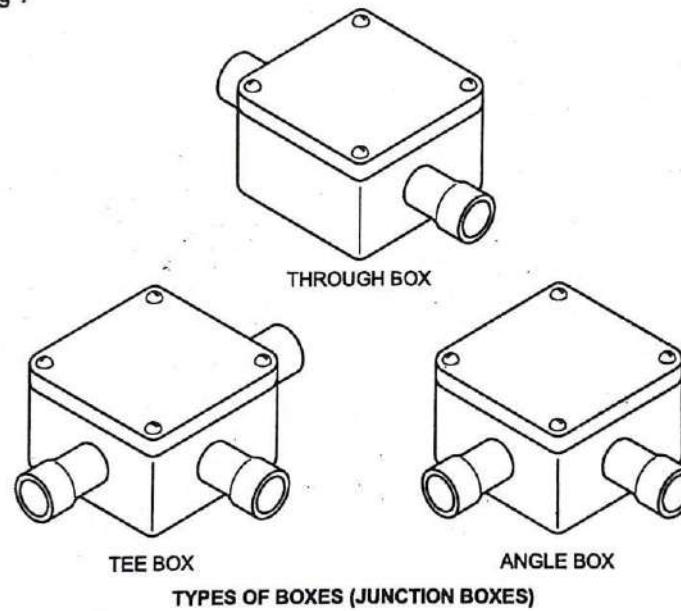
Fig.18



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Fig 7



EL152117

Fig.19

Fig 2

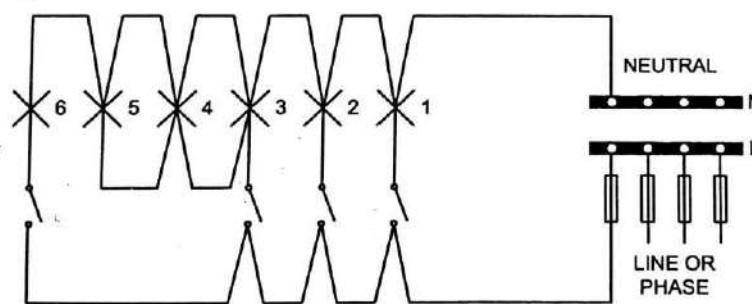


Fig.20



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MASTER TEACHING PLAN

TRADE: ELECTRICIAN	TYPE OF CLASS: THEORY	1ST YEAR CLASS NO:99
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MAIN TOPIC / CHAPTER:SAFTY DEVICE (NSQF LEVEL-5)	NO OF CLASS IN THIS MAIN TOPIC / CHAPTER: 5
SUB TOPIC :FUSE	1ST CLASS OF THE MAIN TOPIC
DURATION OF CLASS:1 HOUR 20 MINTS	NCVT WEEK NO:7

KEY POINTS & DESCRIPTION (AT LEAST 10 NOS PER CLASS)	EXAMPLE / INDUSTRY EXAMPLE	PHOTO / VIDEO / PRESENTATION/ WALL CHART
1) INTRODUCTION		
2) TYPES OF FUSE	OPEN TYPE,SEMI ENCLOSE,TOTALLY ENCLOSE	
3) OPEN TYPE	OVER HEAD LINES FUSE	
4) SEMI ENCLOSE	FUSE CUT OUT, KIT KAT FUSE	
5) SEMI ENCLOSE TYPE	CARTIDGE, H.R.C	
6) H.R.C FUSE SPECIFICATION		
7)		
8)		
9)		
10)		
11)		
12)		

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MASTER TEACHING PLAN

TRADE: ELECTRICIAN	TYPE OF CLASS: THEORY	1ST YEAR CLASS NO:100
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MAIN TOPIC / CHAPTER: SAFTY DEVICE(NSQF LEVEL-5)	NO OF CLASS IN THIS MAIN TOPIC / CHAPTER:5
SUB TOPIC : RELAYS	2ND CLASS OF THE MAIN TOPIC
DURATION OF CLASS:1 HOUR 20 MINTS	NCVT WEEK NO:7

KEY POINTS & DESCRIPTION (AT LEAST 10 NOS PER CLASS)	EXAMPLE / INDUSTRY EXAMPLE	PHOTO / VIDEO / PRESENTATION/ WALL CHART
1) INTRODUCTION		
2) TYPES OF REALAY	OPEN TYPE, CLOSE TYPE, CURRENT RELAY, VOLTAGE RELAY,	
3) CURRENT RELAY		
4) VOLTAGE RELAY		
5) WORKING PRINCIPLE		
6)REPARING		
7)		
8)		
9)		
10)		
11)		
12)		

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MASTER TEACHING PLAN

TRADE: ELECTRICIAN	TYPE OF CLASS: THEORY	1ST YEAR CLASS NO:101
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MAIN TOPIC / CHAPTER: SAFTY DEVICE(NSQF LEVEL-5)	NO OF CLASS IN THIS MAIN TOPIC / CHAPTER:5
SUB TOPIC : M.C.B	3RD CLASS OF THE MAIN TOPIC
DURATION OF CLASS:1 HOUR 20 MINTS	NCVT WEEK NO:7

KEY POINTS & DESCRIPTION (AT LEAST 10 NOS PER CLASS)	EXAMPLE / INDUSTRY EXAMPLE	PHOTO / VIDEO / PRESENTATION/ WALL CHART
1)) INTRODUCTION		
2) TYPES OF M.C.B	AS PER CURRENT RATINGS	Fig.21
3) WORKING PRINCIPLE		Fig.22
4) PARTS OF M.C.B		Fig.23
5) REPARING		
6)		
7)		
8)		
9)		
10)		
11)		
12)		

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MASTER TEACHING PLAN

TRADE: ELECTRICIAN	TYPE OF CLASS: THEORY	1ST YEAR CLASS NO:102
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MAIN TOPIC / CHAPTER: SAFTY DEVICE(NSQF LEVEL-5)	NO OF CLASS IN THIS MAIN TOPIC / CHAPTER:5
SUB TOPIC : E.L.C.B	4 TH CLASS OF THE MAIN TOPIC
DURATION OF CLASS:1 HOUR 20 MINTS	NCVT WEEK NO:7

KEY POINTS & DESCRIPTION (AT LEAST 10 NOS PER CLASS)	EXAMPLE / INDUSTRY EXAMPLE	PHOTO / VIDEO / PRESENTATION/ WALL CHART
1)) INTRODUCTION		
2) TYPES OF E.L.C.B	AS PER CURRENT RATINGS	
3) WORKING PRINCIPLE		
4) PARTS OF E.L.C.B		
5) REPARING		
6)		
7)		
8)		
9)		
10)		
11)		
12)		

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MASTER TEACHING PLAN

TRADE: ELECTRICIAN	TYPE OF CLASS: THEORY	1ST YEAR CLASS NO:103
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MAIN TOPIC / CHAPTER: SAFTY DEVICE(NSQF LEVEL-5)	NO OF CLASS IN THIS MAIN TOPIC / CHAPTER:5
SUB TOPIC : CLASS TEST OF SAFTY DEVICE	5TH CLASS OF THE MAIN TOPIC
DURATION OF CLASS:1 HOUR 20 MINTS	NCVT WEEK NO:7

KEY POINTS & DESCRIPTION (AT LEAST 10 NOS PER CLASS)	EXAMPLE / INDUSTRY EXAMPLE	PHOTO / VIDEO / PRESENTATION/ WALL CHART
1) CLASS TEST OF SAFTY DEVICE		
2)		
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11)		
12)		

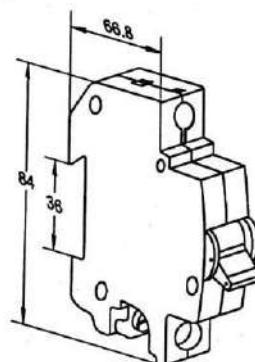
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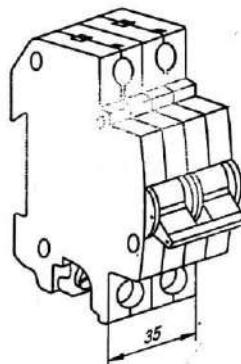
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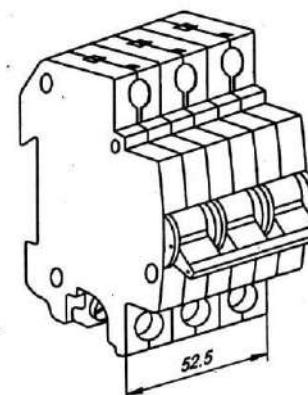
Fig 5



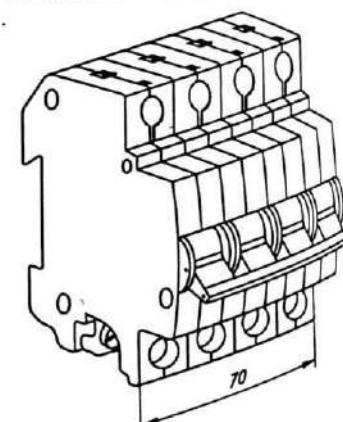
SINGLE POLE



2 POLE (1 POLE + N)



3 POLE

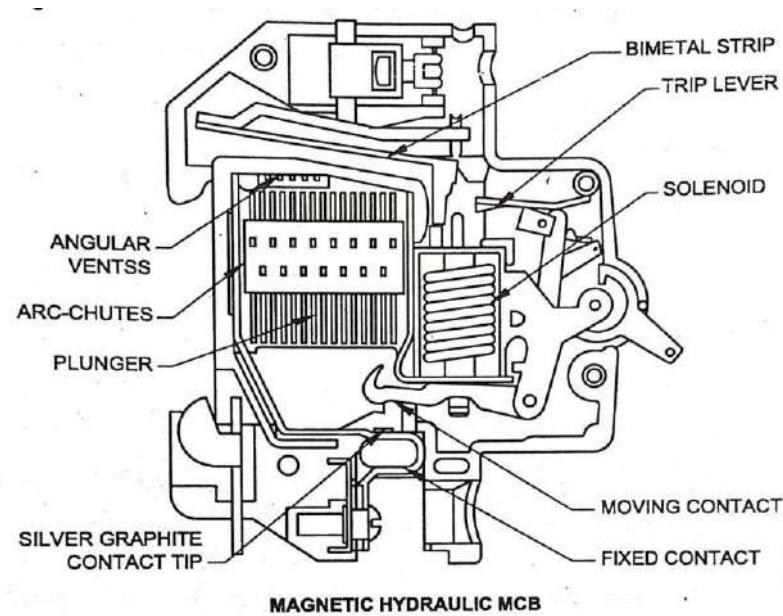


4 POLE (3 POLE + N)

DIFFERENT TYPES OF MCB'S

NOTE: ALL DIMENSIONS ARE IN MM

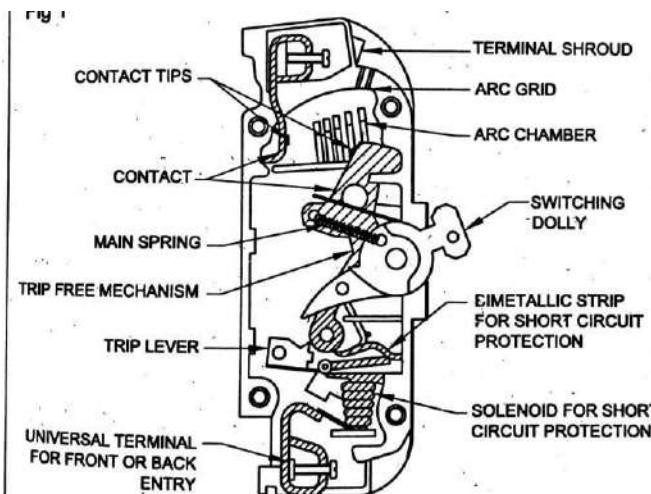
Fig.21



MAGNETIC HYDRAULIC MCB

WM290412

Fig.22



NOTE: THE HATCHED PORTION SHOWS THE PATH OF CURRENT FROM TOP TERMINAL TO BOTTOM.

THERMAL MAGNETIC TYPE MCB

WM290411

Fig.23



SHUBHANKARI PRIVATE INDUSTRIAL TRAINING INSTITUTE, KAKDWIP

MASTER TEACHING PLAN

TRADE: Electrician	TYPE OF CLASS: THEORY	1ST YEAR CLASS NO:104
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MAIN TOPIC / CHAPTER: DC MACHINE(NSQF LEVEL-5)	NO OF CLASS IN THIS MAIN TOPIC / CHAPTER:9
SUB TOPIC : DC GENERATOR	1ST CLASS OF THE MAIN TOPIC
DURATION OF CLASS: 1 HOUR 20 MINTS	NCVT WEEK NO:8-9

KEY POINTS & DESCRIPTION (AT LEAST 10 NOS PER CLASS)	EXAMPLE / INDUSTRY EXAMPLE	PHOTO / VIDEO / PRESENTATION/ WALL CHART
1) Introduction of DC GENERATOR		
2) Principle of Generator	Faradays law	
3) Type of Generator		
4) Water turbine type	On the basis of prime-mover	
5) Steam turbine type		
6) Diesel engine type		
7) Type of EMF		
8) Dynamically induced emf and equation	Nimi-146-147	
9)		
10)		
11)		
12)		



SHUBHANKARI PRIVATE INDUSTRIAL TRAINING INSTITUTE, KAKDWIP

MASTER TEACHING PLAN

TRADE: Electrician	TYPE OF CLASS: THEORY	1ST YEAR CLASS NO:105
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MAIN TOPIC / CHAPTER: DC MACHINE(NSQF LEVEL-5)	NO OF CLASS IN THIS MAIN TOPIC / CHAPTER:9
SUB TOPIC : DC GENERATOR	<u>2ND</u> CLASS OF THE MAIN TOPIC
DURATION OF CLASS: 1 HOUR 20 MINTS	NCVT WEEK NO:8-9

KEY POINTS & DESCRIPTION (AT LEAST 10 NOS PER CLASS)	EXAMPLE / INDUSTRY EXAMPLE	PHOTO / VIDEO / PRESENTATION/ WALL CHART
1) Part of a DC GENERATOR	For industrial use	Fig.24
2) A) Frame or yoke		
3) B) pole and pole shoe		
4) C) Field coil or winding		Fig.25
5) D) armature core		
6) E) Armature winding		
7) F) Commutator		
8) G) Brushes		
9) H) Bearing		
10) I) Air filter for fan		
11) J) Shaft		
12)		



SHUBHANKARI PRIVATE INDUSTRIAL TRAINING INSTITUTE, KAKDWIP
MASTER TEACHING PLAN

TRADE: : Electrician	TYPE OF CLASS: THEORY	1ST YEAR CLASS NO:106
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MAIN TOPIC / CHAPTER: DC MACHINE(NSQF LEVEL-5)	NO OF CLASS IN THIS MAIN TOPIC / CHAPTER:9
SUB TOPIC : DC GENERATOR	_____3 RD CLASS OF THE MAIN TOPIC
DURATION OF CLASS: 1 HOUR 20 MINTS	NCVT WEEK NO:8-9

KEY POINTS & DESCRIPTION (AT LEAST 10 NOS PER CLASS)	EXAMPLE / INDUSTRY EXAMPLE	PHOTO / VIDEO / PRESENTATION/ WALL CHART
1) Type of DC GENERATOR		
2) Separately excited		
3) Self excited		
4) Permanent Magnet		
5) Shunt		
6) Series		
7) Compound		
8) Short shunt compound		
9) Long shunt compound		
10) Cumulative Compound		
11) Differential Compound		
12) Terminal Marking		



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MASTER TEACHING PLAN

SIGNATURE OF TRADE INSTRUCTORS

TRADE: : Electrician	TYPE OF CLASS: THEORY	1ST YEAR CLASS NO:107
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MAIN TOPIC / CHAPTER: DC MACHINE(NSQF LEVEL-5)	NO OF CLASS IN THIS MAIN TOPIC / CHAPTER:9
SUB TOPIC : DC GENERATOR	4 TH CLASS OF THE MAIN TOPIC
DURATION OF CLASS: 1 HOUR 20 MINTS	NCVT WEEK NO:8-9

KEY POINTS & DESCRIPTION (AT LEAST 10 NOS PER CLASS)	EXAMPLE / INDUSTRY EXAMPLE	PHOTO / VIDEO / PRESENTATION/ WALL CHART
1) Commutator and its function		
2) Split ring		
3) Wave shapes of the induced voltage		
4) Simple generator with split ring		
5) Slip ring		
6) Possible reason if a shunt generator fails to generated the voltage		
7) Possible reason if a series generator fails to generated the voltage		
8) Characteristic of compound generator		
9) Characteristic of series and shunt generator		
10)		
11)		
12)		



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MASTER TEACHING PLAN

TRADE: : Electrician	TYPE OF CLASS: THEORY	1ST YEAR CLASS NO:108
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MAIN TOPIC / CHAPTER: DC MACHINE(NSQF LEVEL-5)	NO OF CLASS IN THIS MAIN TOPIC / CHAPTER:9
SUB TOPIC : DC GENERATOR	5 TH CLASS OF THE MAIN TOPIC
DURATION OF CLASS: 1 HOUR 20 MINTS	NCVT WEEK NO:8-9

KEY POINTS & DESCRIPTION (AT LEAST 10 NOS PER CLASS)	EXAMPLE / INDUSTRY EXAMPLE	PHOTO / VIDEO / PRESENTATION/ WALL CHART
1) Armature reaction		
2) Commutation		
3) Method of obtaining commutation without causing sparking		
4) 1) Interpole method		
5) 2) short pitch winding method		
6) 3) using high resistance brushes		
7)		
8)		
9)		
10)		
11)		
12)		



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MASTER TEACHING PLAN

TRADE: Electrician	TYPE OF CLASS: THEORY	1ST YEAR CLASS NO:109
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MAIN TOPIC / CHAPTER: DC MACHINE(NSQF LEVEL-5)	NO OF CLASS IN THIS MAIN TOPIC / CHAPTER:9
SUB TOPIC : : DC GENERATOR	6 TH CLASS OF THE MAIN TOPIC
DURATION OF CLASS: 1 HOUR 20 MINTS	NCVT WEEK NO:10-11

KEY POINTS & DESCRIPTION (AT LEAST 10 NOS PER CLASS)	EXAMPLE / INDUSTRY EXAMPLE	PHOTO / VIDEO / PRESENTATION/ WALL CHART
1) Losses in dc generator		
2) Copper loss		
3) Iron loss		
4) Mechanical loss		
5) Stray loss		
6) Constant loss		
7) Variable loss		
8) Total loss		
9) Efficiency of dc generator		
10) Overall efficiency		
11) Electrical efficency		
12) Mechanical efficiency		



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MASTER TEACHING PLAN

TRADE: Electrician	TYPE OF CLASS: THEORY	1ST YEAR CLASS NO:109
MAIN TOPIC / CHAPTER: DC MACHINE(NSQF LEVEL-5)	NO OF CLASS IN THIS MAIN TOPIC / CHAPTER:9	
SUB TOPIC : : DC GENERATOR	7 TH CLASS OF THE MAIN TOPIC	
DURATION OF CLASS: 1 HOUR 20 MINTS	NCVT WEEK NO:10-11	

KEY POINTS & DESCRIPTION (AT LEAST 10 NOS PER CLASS)	EXAMPLE / INDUSTRY EXAMPLE	PHOTO / VIDEO / PRESENTATION/ WALL CHART
1) Voltage regulation in generator		
2) EMF equation of dc generator		
3) Method of measuring the speed of a rotating shaft		
4) Used of a dc generator		
5) Series	Arc welding, arc lighting	
6) shunt	Lighting, battery charging	
7) compound	Reduce the voltage drop of a long feeder line	
8)		
9)		
10)		
11)		
12)		



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MASTER TEACHING PLAN

TRADE: Electrician	TYPE OF CLASS: THEORY	1ST YEAR CLASS NO:110
MAIN TOPIC / CHAPTER: DC MACHINE(NSQF LEVEL-5)	NO OF CLASS IN THIS MAIN TOPIC / CHAPTER:9	
SUB TOPIC : : : DC GENERATOR	8 TH CLASS OF THE MAIN TOPIC	
DURATION OF CLASS: 1 HOUR 20 MINTS	NCVT WEEK NO:10-11	

KEY POINTS & DESCRIPTION (AT LEAST 10 NOS PER CLASS)	EXAMPLE / INDUSTRY EXAMPLE	PHOTO / VIDEO / PRESENTATION/ WALL CHART
1) generator troubles		
2) A) generator fails to generate the voltage		
3) B) sparking at the commutator		
4) C) heating of the generator		
5) problem solved		
5) Short question		
7)		
8)		
9)		
10)		
11)		
12)		



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MASTER TEACHING PLAN

TRADE:ELECTRICIAN	TYPE OF CLASS: THEORY	1ST YEAR CLASS NO:111
MAIN TOPIC / CHAPTER:DC MACHINE(NSQF LEVEL-5)	NO OF CLASS IN THIS MAIN TOPIC / CHAPTER:9	
SUB TOPIC :CLASS TEST	9 TH CLASS OF THE MAIN TOPIC	
DURATION OF CLASS: 1 HOUR 20 MINTS	NCVT WEEK NO:10-11	

KEY POINTS & DESCRIPTION (AT LEAST 10 NOS PER CLASS)	EXAMPLE / INDUSTRY EXAMPLE	PHOTO / VIDEO / PRESENTATION/ WALL CHART
1)CLASS TEST OF DC MACHINE		
2)		
3)		
4)		
5)		
6)		
7)		
8)		
9)		
10)		
11)		
12)		



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Fig 1

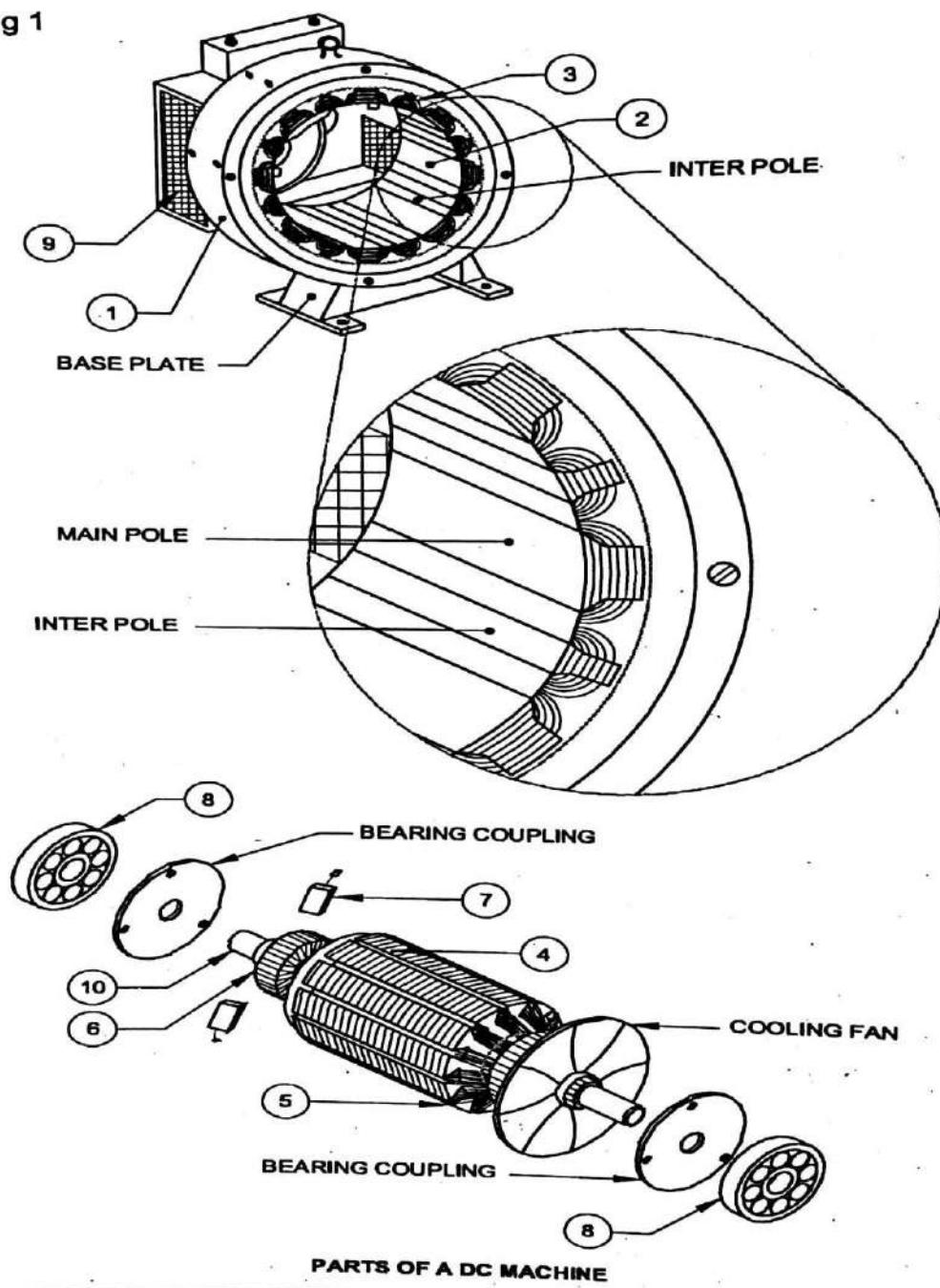
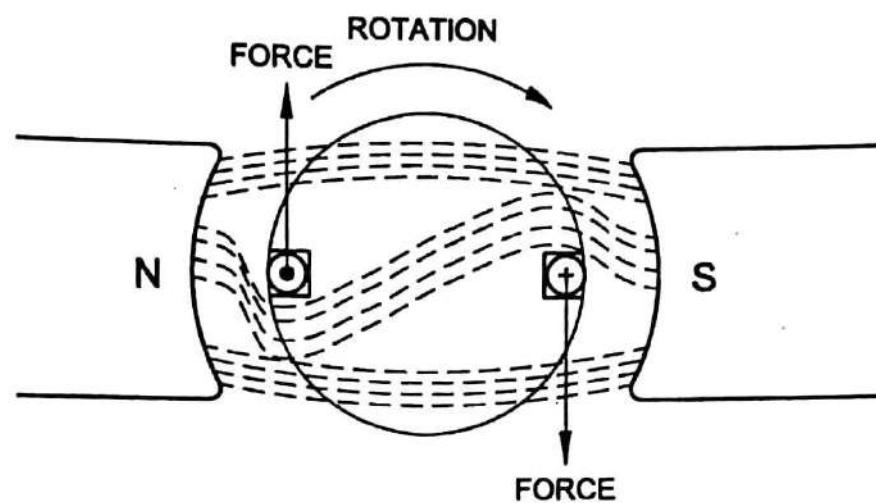


Fig.24



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MASTER TEACHING PLAN

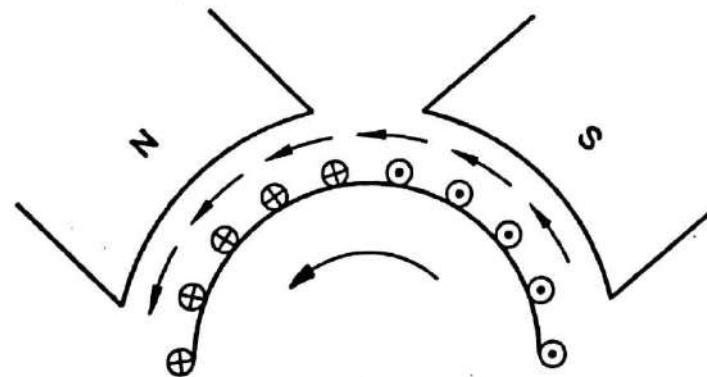
Fig 2



REACTION OVER A CURRENT CARRYING LOOP BY THE MAGNETIC FIELD

EL160912

Fig 3



REACTION OVER THE ARMATURE CURRENT CARRYING CONDUCTORS BY THE MAGNETIC FIELD

EL160913

Fig.25



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MASTER TEACHING PLAN

TRADE:ELECTRICIAN	TYPE OF CLASS: THEORY /	1ST YEAR CLASS NO:112
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MAIN TOPIC / CHAPTER:DC MOTORS (NSQF LEVEL-5)	NO OF CLASS IN THIS MAIN TOPIC / CHAPTER:10
SUB TOPIC : DC MACHINE	1ST CLASS OF THE MAIN TOPIC
DURATION OF CLASS:1 HOUR 20 MINTUES	NCVT WEEK NO, 12-13

KEY POINTS & DESCRIPTION (AT LEAST 10 NOS PER CLASS)	EXAMPLE / INDUSTRY EXAMPLE	PHOTO / VIDEO / PRESENTATION/ WALL CHART
1)INTRODUCTION	Industry ,trum , train	
2)WORKING PRINCIPLE		
3)BACK EMF		
4)TORQUE		
5)TYPES OF TORQUE	ARMATURE TORQUE, SHAFT TORQUE,LOST TORQUE	
6)RELETION BETWWEN BACK EMF AND TORQUE		
7)		
8)		
9)		
10)		
11)		
12)		



SHUBHANKARI PRIVATE INDUSTRIAL TRAINING INSTITUTE, KAKDWIP MASTER TEACHING PLAN

TRADE: ELECTRICIAN	TYPE OF CLASS: THEORY	1ST YEAR CLASS NO:113
MAIN TOPIC / CHAPTER: DC MOTORS(NSQF LEVEL-5)	NO OF CLASS IN THIS MAIN TOPIC / CHAPTER:10	
SUB TOPIC : DC MACHINE	2 nd CLASS OF THE MAIN TOPIC	
DURATION OF CLASS: 1 HOUR 20 MINTUES	NCVT WEEK NO, 12-13	

KEY POINTS & DESCRIPTION (AT LEAST 10 NOS PER CLASS)	EXAMPLE / INDUSTRY EXAMPLE	PHOTO / VIDEO / PRESENTATION/ WALL CHART
1)FLEMING LEFT HAND RULES		Fig.26
2)CLASSIFICATION OF DC MOTOR	SERIES MOTOR, SHUNT MOTOR, COMPOUND MOTOR	
3)SERIES MOTOR	CRANES, TRAM, RAILWAYS	
4)SHUNT MOTOR	LATHE, FOUR MILLIS, DRILLING MACHINE	
5)COMPOUND MOTOR		
6)CLASSIFICATION OF COMPOUND MOTOR	CUMMULATIVE TYPE MOTOR, DIFFERENTIAL TYPE COMPOUND MOTOR	
7) CUMMULATIVE TYPE MOTOR		
8) DIFFERENTIAL TYPE COMPOUND MOTOR	LONG SHUNT, SHORT SHUNT	
9)		
10)		
11)		
12)		



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TRADE: ELECTRICIAN	TYPE OF CLASS: THEORY	1ST YEAR CLASS NO:114
MAIN TOPIC / CHAPTER: DC MOTORS(NSQF LEVEL-5)		NO OF CLASS IN THIS MAIN TOPIC / CHAPTER:10
SUB TOPIC : DC MACHINE		3 RD CLASS OF THE MAIN TOPIC
DURATION OF CLASS: 1 HOUR 20 MINTUES		NCVT WEEK NO.12-13

KEY POINTS & DESCRIPTION (AT LEAST 10 NOS PER CLASS)	EXAMPLE / INDUSTRY EXAMPLE	PHOTO / VIDEO / PRESENTATION/ WALL CHART
1)LONG SHUNT CUMMULATIVE TYPE MOTOR		
2)SHORT SHUNT CUMMULATIVE TYPE MOTOR		
3)APPLICATION OF DC MOTOR	ANY TYPES INDUSTRIES, TRAIN ALL HEAVY WORK	
4)DIFFERENT TYPES OF DC MOTOR AND ITS APPLICATION		
5)SERIES, SHUNT, CUMMULATIVE,) DIFFERNTIAL DC MOTOR APPLICATION	PUNCH PRESS, ROLLING MILLS,PRINTING PRESS,FOUR MILLS	
6)SPEED CUURENT CHARACTERSTIC OF DC MOTOR		
7)TORQUE CURRENT CHARACTERSTIC OF DC MOTOR		
8)SPEED TORQUE CHARACTERSTIC OF DC MOTOR		
9)		
10)		
11)		
12)		



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TRADE: ELECTRICIAN	TYPE OF CLASS: THEORY	1ST YEAR CLASS NO:115
MAIN TOPIC / CHAPTER:DC MOTOR(NSQF LEVEL-5)	NO OF CLASS IN THIS MAIN TOPIC / CHAPTER:10	
SUB TOPIC :SHUNT MOTOR	4 TH CLASS OF THE MAIN TOPIC	
DURATION OF CLASS: 1 HOUR 20 MINTUES	NCVT WEEK NO. 12-13	

KEY POINTS & DESCRIPTION (AT LEAST 10 NOS PER CLASS)	EXAMPLE / INDUSTRY EXAMPLE	PHOTO / VIDEO / PRESENTATION/ WALL CHART
1)SHUNT MOTOR		
2) SPEED CUURENT CHARACTERSTIC OF DC SHUNT MOTOR	GRAPH	
3) TORQUE CURRENT CHARACTERSTIC OF DC MOTOR	GRAPH	
4) SPEED TORQUE CHARACTERSTIC OF DC MOTOR	GRAPH	
5)USE OF SERIES MOTOR AND SHUNT MOTOR ON THE BASIC OF SPEED TORQUE CHARACTERSTIC		
6)		
7)		
8)		
9)		
10)		
11)		
12)		



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MASTER TEACHING PLAN

TRADE: ELECTRICIAN	TYPE OF CLASS: THEORY	1ST YEAR CLASS NO:116
MAIN TOPIC / CHAPTER: DC MOTOR(NSQF LEVEL-5)	NO OF CLASS IN THIS MAIN TOPIC / CHAPTER:10	
SUB TOPIC :SPEED CONTROL OF DC MOTOR	5 TH CLASS OF THE MAIN TOPIC	
DURATION OF CLASS: 1 HOUR 20 MINTUES	NCVT WEEK NO. 14	

KEY POINTS & DESCRIPTION (AT LEAST 10 NOS PER CLASS)	EXAMPLE / INDUSTRY EXAMPLE	PHOTO / VIDEO / PRESENTATION/ WALL CHART
1) SPEED CONTROL PROCESS OF DC MOTOR	FIELD FLUX, SUPPLY VOLTAGE, ARMATURE REACTION	
2) FIELD FLUX		
3) SUPPLY VOLTAGE,		
4) ARMATURE REACTION		
5) SPEED CONTROL OF SHUNT MOTOR	FIELD CONTROL METHOD, ARMATURE CONTROL METHOD, VARING IN APPLIED VOLTAGE SEMI CONDUCTOR DEVICE METHOD	
6) BRIEF DESCRIPTION OF DIFFERENT TYPES OF SPEED CONTROL PROCESS AND THEIR ADVANTAGE AND DIS ADVANTAGE		
7)		
8)		
9)		
10)		
11)		
12)		



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TRADE:ELECTRICIAN	TYPE OF CLASS: THEORY	1ST YEAR CLASS NO:117
MAIN TOPIC / CHAPTER:DC MACHINE(NSQF LEVEL-5)	NO OF CLASS IN THIS MAIN TOPIC / CHAPTER:10	
SUB TOPIC : DC STARTER	6 TH CLASS OF THE MAIN TOPIC	
DURATION OF CLASS: 1 HOUR 20 MINTS	NCVT WEEK NO:14	

KEY POINTS & DESCRIPTION (AT LEAST 10 NOS PER CLASS)	EXAMPLE / INDUSTRY EXAMPLE	PHOTO / VIDEO / PRESENTATION/ WALL CHART
1)HAND STARTER	D.O.L, 3 POINT, 4 POINT	Fig.27
2)NO VOLT COIL		Fig.28
3)OVER LOAD COIL		
4)FUNCTION OF STARTER		
5)CARE		
6)CIRCUIT DIAGRAM OF 3 POINT STARTER		
7)4 POINT STARTER		
8) CIRCUIT DIAGRAM OF 4 POINT STARTER		
9)COMPARISION BETWEEN 3 POINT AND 4 POINT		
10)APPLICATION		
11)		
12)		



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TRADE:ELECTRICIAN	TYPE OF CLASS: THEORY	1ST YEAR CLASS NO:118
MAIN TOPIC / CHAPTER:DC MACHINE(NSQF LEVEL-5)	NO OF CLASS IN THIS MAIN TOPIC / CHAPTER:10	
SUB TOPIC :STARTER	7 TH CLASS OF THE MAIN TOPIC	
DURATION OF CLASS: 1 HOUR 20 MINTS	NCVT WEEK NO:14	

KEY POINTS & DESCRIPTION (AT LEAST 10 NOS PER CLASS)	EXAMPLE / INDUSTRY EXAMPLE	PHOTO / VIDEO / PRESENTATION/ WALL CHART
1)REVERSAL OF ROTATIONAL DIRECTION OF DC MOTOR		
2)BY REVERING THE DIRECTION OF ARMATURE CURRENT		
3) BY REVERING THE DIRECTION OF MAGNETIC FIELD		
4) REVERSAL OF ROTATIONAL DIRECTION OF SERIES MOTOR		
5) REVERSAL OF ROTATIONAL DIRECTION OF SHUNT MOTOR		
6) REVERSAL OF ROTATIONAL DIRECTION OF COMPOUND MOTOR		
7)		
8)		
9)		
10)		
11)		
12)		



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TRADE:ELECTRICIAN	TYPE OF CLASS: THEORY	1ST YEAR CLASS NO:119
MAIN TOPIC / CHAPTER:DC MACHINE(NSQF LEVEL-5)	NO OF CLASS IN THIS MAIN TOPIC / CHAPTER:10	
SUB TOPIC :LOSSES OF DC MOTORS	8 TH CLASS OF THE MAIN TOPIC	
DURATION OF CLASS: 1 HOUR 20 MINTS	NCVT WEEK NO:14	

KEY POINTS & DESCRIPTION (AT LEAST 10 NOS PER CLASS)	EXAMPLE / INDUSTRY EXAMPLE	PHOTO / VIDEO / PRESENTATION/ WALL CHART
1)LOSSES OF DC MOTOR		
2)COPPER LOSSES	FORMULA AND EQUATION	
3)IRON LOSSES		
4)STRAY LOSSES		
5)CONSTANT LOSSES		
6)VARIABLE LOSSES		
7)EFFICIENCY OF DC MOTOR		
8)ELECTRICAL EFFICIENCY		
9)COMMERCIAL EFFICIENCY		
10)MECHENICAL EFFICIENCY		
11)		
12)		



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MASTER TEACHING PLAN

TRADE:ELECTRICIAN	TYPE OF CLASS: THEORY	1ST YEAR CLASS NO:120
MAIN TOPIC / CHAPTER:DC MACHINE(NSQF LEVEL-5)	NO OF CLASS IN THIS MAIN TOPIC / CHAPTER:10	
SUB TOPIC :SAFTY AND PRECAUTION	9 TH CLASS OF THE MAIN TOPIC	
DURATION OF CLASS: 1 HOUR 20 MINTS	NCVT WEEK NO:14	

KEY POINTS & DESCRIPTION (AT LEAST 10 NOS PER CLASS)	EXAMPLE / INDUSTRY EXAMPLE	PHOTO / VIDEO / PRESENTATION/ WALL CHART
1)SAFTY PRECAUTION FOR DC MOTOR		
2)TROUBLES OF DC MOTOR		
3)SELECTION DC MOTOR		
4)FAULTS OF DC MOTOR, THIER CAUSE AND REMEDIES		
5)MATHEMATICAL EQUATION		
6)SHORT QUESTION ANSWER		
7)		
8)		
9)		
10)		
11)		
12)		



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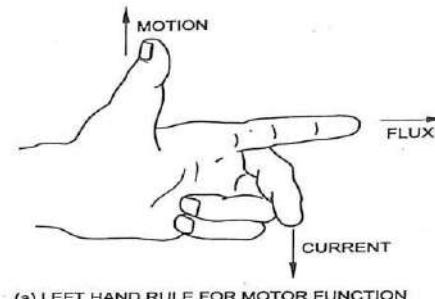
TRADE:ELECTRICIAN	TYPE OF CLASS: THEORY	1ST YEAR CLASS NO:121
MAIN TOPIC / CHAPTER:DC MACHINE(NSQF LEVEL-5)	NO OF CLASS IN THIS MAIN TOPIC / CHAPTER:10	
SUB TOPIC :CLASS TEST	10 TH CLASS OF THE MAIN TOPIC	
DURATION OF CLASS: 1 HOUR 20 MINTS	NCVT WEEK NO:14	

KEY POINTS & DESCRIPTION (AT LEAST 10 NOS PER CLASS)	EXAMPLE / INDUSTRY EXAMPLE	PHOTO / VIDEO / PRESENTATION/ WALL CHART
1)CLASS TEST OF DC MOTORS		
2)		
3)		
4)		
5)		
6)		
7)		
8)		
9)		
10)		
11)		
12)		

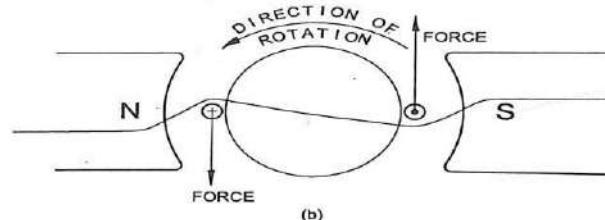


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Fig 4



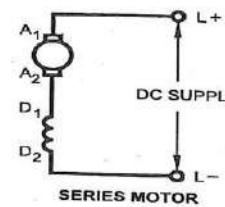
(a) LEFT HAND RULE FOR MOTOR FUNCTION



(b) FLEMING'S LEFT HAND RULE

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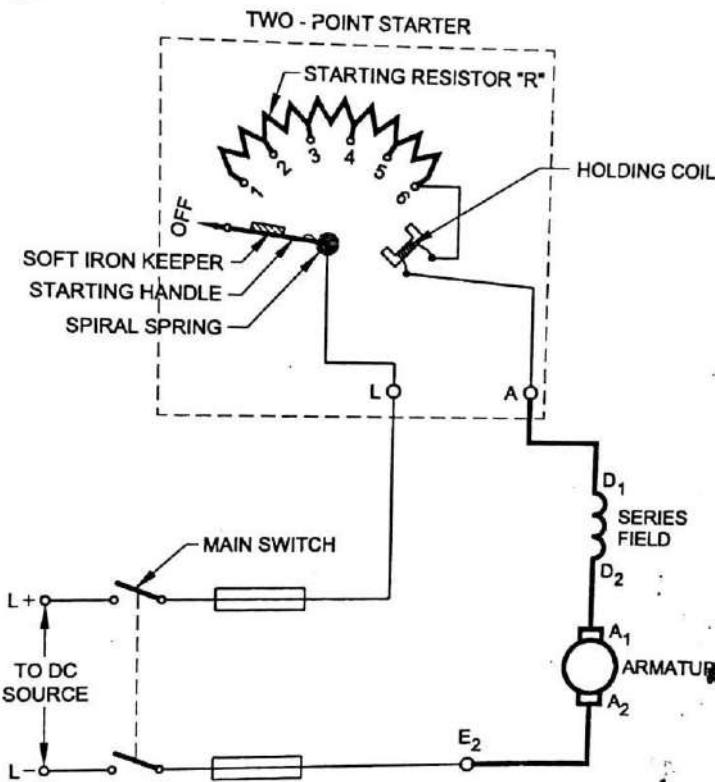
Fig 5



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Fig.26

Fig 2



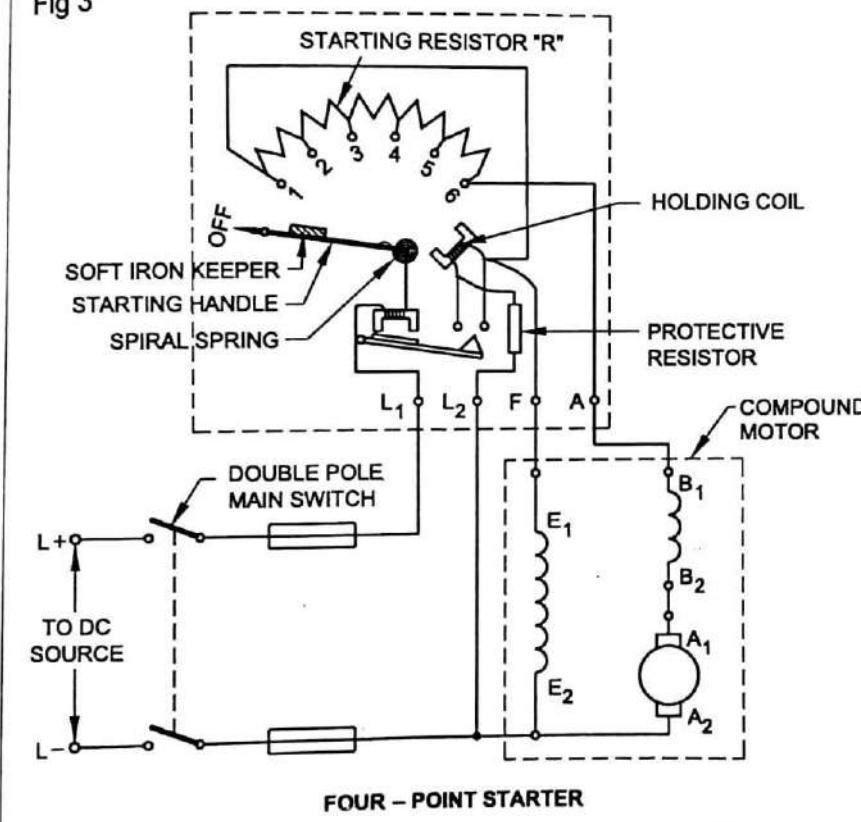
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Fig.27



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Fig 3



EL161113

Fig.28



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MASTER TEACHING PLAN

TRADE:ELECTRICIAN	TYPE OF CLASS: THEORY	1ST YEAR CLASS NO:122
MAIN TOPIC / CHAPTER:TRANSFORMER(NSQF LEVEL-5)		NO OF CLASS IN THIS MAIN TOPIC / CHAPTER:11
SUB TOPIC :BASIC OF TRANSFORMER		1ST CLASS OF THE MAIN TOPIC
DURATION OF CLASS: 1 HOUR 20 MINTS		NCVT WEEK NO:15-18

KEY POINTS & DESCRIPTION (AT LEAST 10 NOS PER CLASS)	EXAMPLE / INDUSTRY EXAMPLE	PHOTO / VIDEO / PRESENTATION/ WALL CHART
1)INTRODUCTION OF TRANSFORMER		
2)DEFINATION OF TRANSFORMER		
3)TRANSFORMER AND ITS WORKING PRINCIPLE		
4)CIRCUIT DIAGRAM OF TRANSFORMER		
5)ADVANTAGE USE OF TRANSFORMER IN AC CURRENT		
6)		
7)		
8)		
9)		
10)		
11)		
12)		



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MASTER TEACHING PLAN

TRADE:ELECTRICIAN	TYPE OF CLASS: THEORY	1ST YEAR CLASS NO:123
MAIN TOPIC / CHAPTER: TRANSFORMER(NSQF LEVEL-5)	NO OF CLASS IN THIS MAIN TOPIC / CHAPTER:11	
SUB TOPIC : CONSTRUCTION\ OF TRANSFORMER	_____ 2 ND CLASS OF THE MAIN TOPIC	
DURATION OF CLASS: 1 HOUR 20 MINTS	NCVT WEEK NO:15-18	

KEY POINTS & DESCRIPTION (AT LEAST 10 NOS PER CLASS)	EXAMPLE / INDUSTRY EXAMPLE	PHOTO / VIDEO / PRESENTATION/ WALL CHART
1)CONSTRUCTION OF TRANSFORMER		
2)IRON CORE		
3)WINDINGS		
4)BOX OR COVER		
5)LAMINATED CORING SYSTEM		
6)WINDING OF TRANSFORMER		
6) CYLENDRICAL WINDING		
8)SANDWICH WINDING		
9)BOX OR COVER		
10)		
11)		
12)		



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MASTER TEACHING PLAN

TRADE:ELECTRICIAN	TYPE OF CLASS: THEORY	CLASS NO:124
MAIN TOPIC / CHAPTER: TRANSFORMER(NSQF LEVEL-5)		NO OF CLASS IN THIS MAIN TOPIC / CHAPTER:11
SUB TOPIC : E.M.F OF TRANSFORMER		3 RD CLASS OF THE MAIN TOPIC
DURATION OF CLASS: 1 HOUR 20 MINTS		NCVT WEEK NO:15-18

KEY POINTS & DESCRIPTION (AT LEAST 10 NOS PER CLASS)	EXAMPLE / INDUSTRY EXAMPLE	PHOTO / VIDEO / PRESENTATION/ WALL CHART
1)TRANSFORMER RATIO	I ₁ /I ₂ =E ₁ /E ₂ =N ₁ /N ₂	
2)SOME MATHEMATICAL PROBLEM OF TRANSFORMER RATIO		
3) EMF EQUATION		
4) SOME MATHEMATICAL PROBLEM OF TRANSFORMER EMF EQUATION		
5)LAMINATED CORE AND COOLING SYSTEM		
6)PROTECTIVE DEVICE USED WITH TRANSFORMER		
7)IRON LOSS, EDDY CURRENT LOSS ,HYSTERESIS LOSS		
8)		
9)		
10)		
11)		
12)		



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MASTER TEACHING PLAN

TRADE:ELECTRICIAN	TYPE OF CLASS: THEORY	CLASS NO:125
MAIN TOPIC / CHAPTER: TRANSFORMER(NSQF LEVEL-5)	NO OF CLASS IN THIS MAIN TOPIC / CHAPTER:11	
SUB TOPIC : LOSSES OF TRANSFORMER	____ 4 TH ____ CLASS OF THE MAIN TOPIC	
DURATION OF CLASS: 1 HOUR 20 MINTS	NCVT WEEK NO:15-18	

KEY POINTS & DESCRIPTION (AT LEAST 10 NOS PER CLASS)	EXAMPLE / INDUSTRY EXAMPLE	PHOTO / VIDEO / PRESENTATION/ WALL CHART
1)DETERMINE OF IRON LOSSES AND COPPER LOSSES		
2)DETERMINE OF IRON LOSSES		
3) DETERMINE OF COPPER LOSSES		
4)TRANSFORMER EFFICIENCY		
5)ALL DAY EFFICIENCY		
6)TRANSFORMER REGULATION		
7) TRANSFORMER ON NO LOAD		
8) TRANSFORMER LOAD		
9)		
10)		
11)		
12)		



SHUBHANKARI PRIVATE INDUSTRIAL TRAINING INSTITUTE, KAKDWIP

MASTER TEACHING PLAN

TRADE:ELECTRICIAN	TYPE OF CLASS: THEORY	CLASS NO:126
MAIN TOPIC / CHAPTER: TRANSFORMER(NSQF LEVEL-5)	NO OF CLASS IN THIS MAIN TOPIC / CHAPTER:11	
SUB TOPIC : TYPES OF TRANSFORMER	5 TH CLASS OF THE MAIN TOPIC	
DURATION OF CLASS: 1 HOUR 20 MINTS	NCVT WEEK NO:15-18	

KEY POINTS & DESCRIPTION (AT LEAST 10 NOS PER CLASS)	EXAMPLE / INDUSTRY EXAMPLE	PHOTO / VIDEO / PRESENTATION/ WALL CHART
1) TYPES OF TRANSFORMER		
2) ACCORDING TO THE VOLTAGE	STEP DOWN AND STEP UP	
3) ACCORDING TO THE MAGNETIC CORE	CORE TYPE ,SHEEL TYPE, BERRY TYPE	
4) ACCORDING TO THE COOLING SYSTEM	NATURAL AIR COOLED, OIL COOLED, WATER COOLED ,AIR BLAST COOLED	
5) ACCORDING TO THE OUPUT	AUTO TRANSFRMER, CUREEN TRANSFORMER, POTENTIAL TRANSFORMER	
6) ACCORDING TO THE COMMERCIAL USE	POWER AND DISTRIBUTION	
7) ACCORDING TO THE LOCATION	INDOOR AND OUTDOOR	
8) ACCORDING TO THE WINDING	SINGLE PHASE AND THREE PHASE	
9)		
10)		
11)		



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MASTER TEACHING PLAN

TRADE:ELECTRICIAN	TYPE OF CLASS: THEORY	CLASS NO:127
MAIN TOPIC / CHAPTER: TRANSFORMER(NSQF LEVEL-5)	NO OF CLASS IN THIS MAIN TOPIC / CHAPTER:11	
SUB TOPIC : TYPES OF TRANSFORMER WORKING PRINCIPLE	6 TH CLASS OF THE MAIN TOPIC	
DURATION OF CLASS: 1 HOUR 20 MINTS	NCVT WEEK NO:15-18	

KEY POINTS & DESCRIPTION (AT LEAST 10 NOS PER CLASS)	EXAMPLE / INDUSTRY EXAMPLE	PHOTO / VIDEO / PRESENTATION/ WALL CHART
1) STEP UP TRANSFORMER AND ITS WORKING PRINCIPLE		
2) STEP DOWN TRANSFORMER AND ITS WORKING PRINCIPLE		
3) TYPES OF TRANSFORMER ACCORDING TO THE MAGNETIC CORE	CORE TYPE ,SHEEL TYPE ,AND BERRY TYPE	
4) DIFFERENT BETWEEN CORE TYPE AND SHEEL TYPE		
5) SINGLE PHASE TRANSFORMER		Fig.29
6) THREE PHASE TRANSFORMER		
7)		
8)		
9)		
10)		
11)		
12)		



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MASTER TEACHING PLAN

TRADE:ELECTRICIAN	TYPE OF CLASS: THEORY	CLASS NO:128
MAIN TOPIC / CHAPTER: TRANSFORMER(NSQF LEVEL-5)	NO OF CLASS IN THIS MAIN TOPIC / CHAPTER:11	
SUB TOPIC : CONNECTION OF TRANSFORMER	7 TH CLASS OF THE MAIN TOPIC	
DURATION OF CLASS: 1 HOUR 20 MINTS	NCVT WEEK NO:15-18	

KEY POINTS & DESCRIPTION (AT LEAST 10 NOS PER CLASS)	EXAMPLE / INDUSTRY EXAMPLE	PHOTO / VIDEO / PRESENTATION/ WALL CHART
1)THREE PHASE TRANSFORMER CONNECTION	STAR,DELTA,INTERSTAR CONNECTION	
2)STAR CONNECTION		
3)DELTA CONNECTION		
4)INTERSTAR CONNECTION		
5)CONNECTION OF PRIMARY AND SECONDARY WINDING OF A 3 PHASE TRANSFORMER	DELTA STAR,DELTA DELTA,STAR DELTA,STAR STAR,STAR INTERSTAR, INTERSTAR DELTA	
6) BRIEF DESCRIPTION CONNECTION OF PRIMARY AND SECONDARY WINDING OF A 3 PHASE TRANSFORMER		
7)SCOTT CONNECTION		
8)NESSICITY AND METHOD OF COLLING THE TRANSFORMER	METHOD OF COOLING	
9)NEUTRAL AIR CIRCULATION OF COOLING		
10)OIL COOLING		
11)WATER COOLING		
12)AIR BLAST COOLING		



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MASTER TEACHING PLAN

TRADE:ELECTRICIAN	TYPE OF CLASS: THEORY	CLASS NO:129
MAIN TOPIC / CHAPTER: TRANSFORMER(NSQF LEVEL-5)	NO OF CLASS IN THIS MAIN TOPIC / CHAPTER:11	
SUB TOPIC : CONSTRUCTION OF TRANSFORMER OF TRANSFORMER	8 TH CLASS OF THE MAIN TOPIC	
DURATION OF CLASS: 1 HOUR 20 MINTS	NCVT WEEK NO: 15-18	

KEY POINTS & DESCRIPTION (AT LEAST 10 NOS PER CLASS)	EXAMPLE / INDUSTRY EXAMPLE	PHOTO / VIDEO / PRESENTATION/ WALL CHART
1)CONSTRUCTION OF 3 PHASE TRANSFORMER	LAMINATED IRON CORE, TANK CONSERVATOR, OIL GAUGE,TRANSFORMER OIL, BREATHER,TEMPATURE GAUGE, BUCHHOLZ REALY, EXPLOSION VENT,DRAIN VALVE	
2) LAMINATED IRON CORE		
3) TANK CONSERVATOR		
4) OIL GAUGE		
5) TRANSFORMER OIL,		
6) BREATHER		
7) TEMPATURE GAUGE, BUCHHOLZ REALY,		
8) EXPLOSION VENT,DRAIN VALVE		
9)		
10)		
11)		
12)		



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MASTER TEACHING PLAN

TRADE:ELECTRICIAN	TYPE OF CLASS: THEORY	CLASS NO:130
MAIN TOPIC / CHAPTER: TRANSFORMER(NSQF LEVEL-5)	NO OF CLASS IN THIS MAIN TOPIC / CHAPTER:11	
SUB TOPIC : CONSTRUCTION OF TRANSFORMER OF TRANSFORMER	9 TH CLASS OF THE MAIN TOPIC	
DURATION OF CLASS: 1 HOUR 20 MINTS	NCVT WEEK NO:15-18	

KEY POINTS & DESCRIPTION (AT LEAST 10 NOS PER CLASS)	EXAMPLE / INDUSTRY EXAMPLE	PHOTO / VIDEO / PRESENTATION/ WALL CHART
1)ALL ABOUT AUTO TRANSFORMER	CIRCUIT DIAGRAM,TRANSFORMER RATIO,ADVANTAGE,DISADVANTAGE,AND USE	
2)INSTRUMENT TRANSFORMER AND ITS TYPE	CURRENT AND POTENTIAL TRANSFORMER	
3)POWER TRANSFORMER	PROTECTIVE DEVICE USED IN POWER TRANSFORMER	
4)REASONS FOR TRANSFORMER USING IN DISTRIBUTION LINE		
5)TRANSFORMER RATING		
6)REASONS FOR PARALLEL OPERATION FOR TRANSFORMER		
7)		
8)		
9)		
10)		
11)		
12)		



SHUBHANKARI PRIVATE INDUSTRIAL TRAINING INSTITUTE, KAKDWIP
MASTER TEACHING PLAN

TRADE:ELECTRICIAN	TYPE OF CLASS: THEORY	CLASS NO:131
MAIN TOPIC / CHAPTER: TRANSFORMER(NSQF LEVEL-5)	NO OF CLASS IN THIS MAIN TOPIC / CHAPTER:11	
SUB TOPIC :CLASS REVIEW	10 TH CLASS OF THE MAIN TOPIC	
DURATION OF CLASS: 1 HOUR 20 MINTS	NCVT WEEK NO:15-18	

KEY POINTS & DESCRIPTION (AT LEAST 10 NOS PER CLASS)	EXAMPLE / INDUSTRY EXAMPLE	PHOTO / VIDEO / PRESENTATION/ WALL CHART
1)ALL TYPE MATHEMATICAL PROBLEMS ON TRANSFORMER		
2)SHORT QUESTION ANSWER DISSCUSSION		
3)		
4)		
5)		
6)		
7)		
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10)		
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SHUBHANKARI PRIVATE INDUSTRIAL TRAINING INSTITUTE, KAKDWIP
MASTER TEACHING PLAN

TRADE:ELECTRICIAN	TYPE OF CLASS: THEORY	CLASS NO:132
MAIN TOPIC / CHAPTER: TRANSFORMER(NSQF LEVEL-5)	NO OF CLASS IN THIS MAIN TOPIC / CHAPTER:11	
SUB TOPIC :CLASS TEST	11 TH CLASS OF THE MAIN TOPIC	
DURATION OF CLASS: 1 HOUR 20 MINTS	NCVT WEEK NO:15-18	

KEY POINTS & DESCRIPTION (AT LEAST 10 NOS PER CLASS)	EXAMPLE / INDUSTRY EXAMPLE	PHOTO / VIDEO / PRESENTATION/ WALL CHART
1)CLASS TEST OF TRANSFORMER		
2)		
3)		
4)		
5)		
6)		
7)		
8)		
9)		
10)		
11)		
12)		



Fig 1

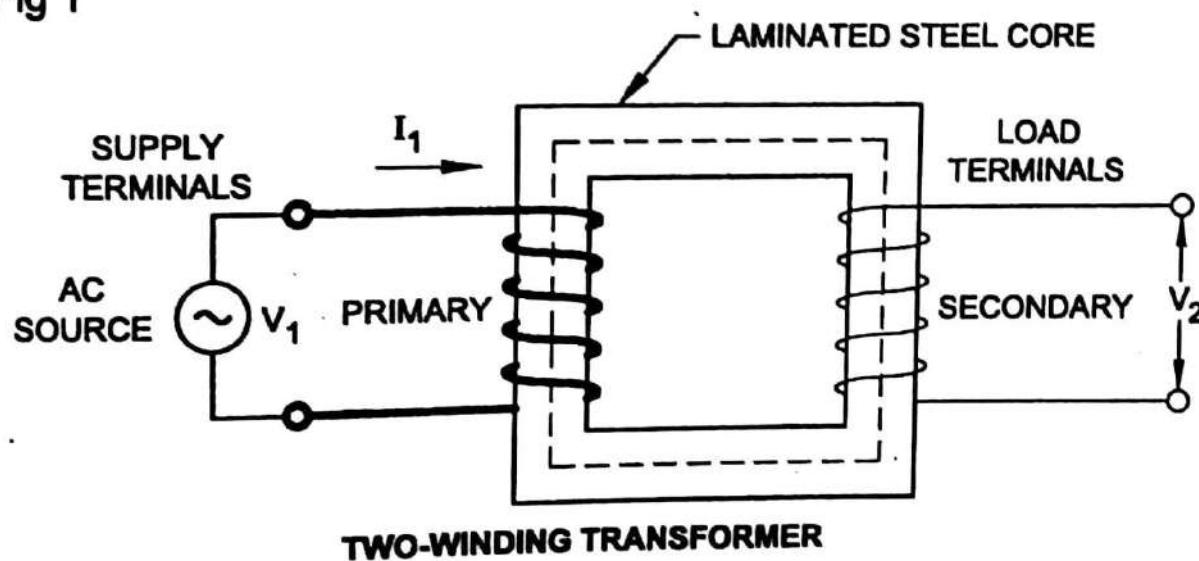


Fig.29



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MASTER TEACHING PLAN

TRADE:ELECTRICIAN	TYPE OF CLASS: THEORY	CLASS NO:133
MAIN TOPIC / CHAPTER:MEASURING (NSQF LEVEL-5)INSTRUMENT		NO OF CLASS IN THIS MAIN TOPIC / CHAPTER:9
SUB TOPIC :TYPES OF MEASURING INSTRUMENT		1 ST CLASS OF THE MAIN TOPIC
DURATION OF CLASS: 1 HOUR 20 MINTS		NCVT WEEK NO:19-21

KEY POINTS & DESCRIPTION (AT LEAST 10 NOS PER CLASS)	EXAMPLE / INDUSTRY EXAMPLE	PHOTO / VIDEO / PRESENTATION/ WALL CHART
1)INTRODUCTION OF MEASURING INSTRUMENT		
2)DIFFERENT TYPES OF MEASURING INSTRUMENT		
3) ACCORDING TO USE	GALVANOMETER, AMMETER,VOLTMETER,WATTMETER,ENERGYMETER, OHMMETER,MEGGER,P.F METER	
4) ACCORDING TO CHARACTERSTICS	ABSOLUTE INSTRUMENT SECONDARY INSTRUMENT	
5)INDICATING INSTRUMENT		
6)RECORDING INSTRUMENT		
7)INTEGRATING INSTRUMENT		
8)		
9)		
10)		
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SHUBHANKARI PRIVATE INDUSTRIAL TRAINING INSTITUTE, KAKDWIP

MASTER TEACHING PLAN

TRADE:ELECTRICIAN	TYPE OF CLASS: THEORY	CLASS NO:134
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MAIN TOPIC / CHAPTER: MEASURING (NSQF LEVEL-5)INSTRUMENT	NO OF CLASS IN THIS MAIN TOPIC / CHAPTER:9
SUB TOPIC :WORKING PRINCIPAL	___ 2 ND CLASS OF THE MAIN TOPIC
DURATION OF CLASS: 1 HOUR 20 MINTS	NCVT WEEK NO:19-21

KEY POINTS & DESCRIPTION (AT LEAST 10 NOS PER CLASS)	EXAMPLE / INDUSTRY EXAMPLE	PHOTO / VIDEO / PRESENTATION/ WALL CHART
1)ACCORDING TO WORKING PRINCIPAL	ELECTROMAGNETIC INSTRUMENT,ELECTRODYNAMIC INSTRUMENT, ELECTROTHERMAL INSTRUMENT,ELECTROCHEMICAL INSTRUMENT.	
2)FORCE ACTING ON INSTRUMENT		Fig.30
3)CONTROLLING FORCE		
4)DAMPING FORCE		
5)PARENT MAGNET MOVING COIL		Fig.31
6)		
7)		
8)		
9)		
10)		
11)		
12)		



SHUBHANKARI PRIVATE INDUSTRIAL TRAINING INSTITUTE, KAKDWIP

MASTER TEACHING PLAN

TRADE:ELECTRICIAN	TYPE OF CLASS: THEORY	CLASS NO:135
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MAIN TOPIC / CHAPTER: MEASURING (NSQF LEVEL-5)INSTRUMENT	NO OF CLASS IN THIS MAIN TOPIC / CHAPTER:9
SUB TOPIC :PMMC	3 rd CLASS OF THE MAIN TOPIC
DURATION OF CLASS: 1 HOUR 20 MINTS	NCVT WEEK NO: 19-21

KEY POINTS & DESCRIPTION (AT LEAST 10 NOS PER CLASS)	EXAMPLE / INDUSTRY EXAMPLE	PHOTO / VIDEO / PRESENTATION/ WALL CHART
1)INTRODUCTION OF PMMC		
2)WORKING PRINCIPLE		
3)ADVANTAGE OF PMMC		
4)DISADVANTAGE OF PMMC		
5)EXTENSION OF INSTRUMENT RANGE		
6)CONNECTED FORMULA		
7)SOME MATHEMATICAL PROBLEMS		
8)		
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11)		
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MASTER TEACHING PLAN

TRADE:ELECTRICIAN	TYPE OF CLASS: THEORY	CLASS NO:136
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MAIN TOPIC / CHAPTER: MEASURING (NSQF LEVEL-5)INSTRUMENT	NO OF CLASS IN THIS MAIN TOPIC / CHAPTER:9
SUB TOPIC :MOVING IRON INSTRUMENTS	4 TH CLASS OF THE MAIN TOPIC
DURATION OF CLASS: 1 HOUR 20 MINTS	NCVT WEEK NO:19-21

KEY POINTS & DESCRIPTION (AT LEAST 10 NOS PER CLASS)	EXAMPLE / INDUSTRY EXAMPLE	PHOTO / VIDEO / PRESENTATION/ WALL CHART
1) INTRODUCTION OF MI		
2) WORKING PRINCIPLE		
3) TYPES OF MI	ATTRACTION AND REPULSION TYPES	
4) ADVANTAGE OF MI		
5) DISADVANTAGE OF MI		
6) COMPARISON BETWEEN MC AND MI TYPE INSTRUMENTS		
7) INTRODUCTION OF ELECTRO DYNAMIC INSTRUMENTS	DYNAMOMETER	
8) WORKING PRINCIPLE		
9) ADVANTAGE		
10) DISADVANTAGE		
11)		
12)		



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MASTER TEACHING PLAN

TRADE:ELECTRICIAN	TYPE OF CLASS: THEORY	CLASS NO:137
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MAIN TOPIC / CHAPTER: MEASURING (NSQF LEVEL-5)INSTRUMENT	NO OF CLASS IN THIS MAIN TOPIC / CHAPTER:9
SUB TOPIC :DYNAMOMETER	5 TH CLASS OF THE MAIN TOPIC
DURATION OF CLASS: 1 HOUR 20 MINTS	NCVT WEEK NO:19-21

KEY POINTS & DESCRIPTION (AT LEAST 10 NOS PER CLASS)	EXAMPLE / INDUSTRY EXAMPLE	PHOTO / VIDEO / PRESENTATION/ WALL CHART
1) DYNAMOMETER-INTRODUCTION	WORKING AS WATTMETR	
2)WORKING PRINCIPLE		
3)ADVANTAGES		
4)DISADVANTAGES		
5)ELECTRO THERMAL INSTRUMENTS		
6)TEYPES THERMAL INSTRUMENTS	THERMOCOUPLE TYPES,HOT WIRE TYPES,	
7)DESCRIPTION		
8)		
9)		
10)		
11)		
12)		



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MASTER TEACHING PLAN

TRADE:ELECTRICIAN	TYPE OF CLASS: THEORY	CLASS NO-138
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MAIN TOPIC / CHAPTER: MEASURING (NSQF LEVEL-5)INSTRUMENT	NO OF CLASS IN THIS MAIN TOPIC / CHAPTER:9
SUB TOPIC :ENERGY METER	6 TH CLASS OF THE MAIN TOPIC
DURATION OF CLASS: 1 HOUR 20 MINTS	NCVT WEEK NO:19-21

KEY POINTS & DESCRIPTION (AT LEAST 10 NOS PER CLASS)	EXAMPLE / INDUSTRY EXAMPLE	PHOTO / VIDEO / PRESENTATION/ WALL CHART
1)INTRODUCTION	ELECTROLYTIC METER,MOTOR METER, CLOCK METER	
2) CLOCK METER	FERRANTI DC AMPERE HOUR METER,ELIHU THOMSON COMMUTATOR WATTMETER.	
3)INDUCTION ENERGY METER		
4)ADVANTAGE		
5)DISADVANTAGE		
6)DESCRIPTION		
7)SINGLE PHASE ENERGY METER		
8)THREE PHASE ENERGY METER	CYCLO DIAL, CLOCK DIAL AND NUMBER DIAL	
9)WORKING PRINCIPLE		
10)		
11)		



SHUBHANKARI PRIVATE INDUSTRIAL TRAINING INSTITUTE, KAKDWIP

MASTER TEACHING PLAN

TRADE:ELECTRICIAN	TYPE OF CLASS: THEORY	CLASS NO:139
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MAIN TOPIC / CHAPTER: MEASURING (NSQF LEVEL-5)INSTRUMENT	NO OF CLASS IN THIS MAIN TOPIC / CHAPTER:9
SUB TOPIC :TYPES OF METER	7 TH CLASS OF THE MAIN TOPIC
DURATION OF CLASS: 1 HOUR 20 MINTS	NCVT WEEK NO:19-21

KEY POINTS & DESCRIPTION (AT LEAST 10 NOS PER CLASS)	EXAMPLE / INDUSTRY EXAMPLE	PHOTO / VIDEO / PRESENTATION/ WALL CHART
1)OHM METER		
2) OHM METER WORKING PRINCIPLE		
3)MULTIMETER		
4) MULTIMETER WORKING PRINCIPLE		
5)TYPES OF MULTIMETER	ANALOGUE AND DIGITAL	
6) ANALOGUE MULTIMETER		
7) DIGITAL MULTIMETER		
8)		
9)		
10)		
11)		
12)		



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MASTER TEACHING PLAN

TRADE:ELECTRICIAN	TYPE OF CLASS: THEORY	CLASS NO:140
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MAIN TOPIC / CHAPTER: MEASURING (NSQF LEVEL-5)INSTRUMENT	NO OF CLASS IN THIS MAIN TOPIC / CHAPTER:9
SUB TOPIC :TYPES OF METER	8 TH CLASS OF THE MAIN TOPIC
DURATION OF CLASS: 1 HOUR 20 MINTS	NCVT WEEK NO:19-21

KEY POINTS & DESCRIPTION (AT LEAST 10 NOS PER CLASS)	EXAMPLE / INDUSTRY EXAMPLE	PHOTO / VIDEO / PRESENTATION/ WALL CHART
1)POWER FACTOR METER INTRODUCTION		
2) TYPES POWER FACTOR	SINGLE PHASE,THREE PHASE	
3) SINGLE PHASE POWER FACTOR WORKING PRINCIPLE		
4) THREE PHASE POWER FACTOR WORKING PRINCIPLE		
5)FREQUENCY METER INTRODUCTION		
6) TYPES OF FREQUENCY METER	VIBRATING REED, ELECTRO DYNAMIC AND MOVING IRON	
7) PHASE SEQUENCE INDICATOR		
8)WORKING PRINCIPLE PHASE SEQUENCE INDICATOR	A-B-C OR C-B-A TYPES	
9)TONG TESTER AND TECHOMETER		
10) TONG TESTER AND TECHOMETER WORKING PRINCIPLE		
11)		
12)		



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MASTER TEACHING PLAN

TRADE:ELECTRICIAN	TYPE OF CLASS: THEORY	CLASS NO:141
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MAIN TOPIC / CHAPTER: MEASURING INSTRUMENT(NSQF LEVEL-5)	NO OF CLASS IN THIS MAIN TOPIC / CHAPTER:9
SUB TOPIC :CLASS TEST	— 9 — TH CLASS OF THE MAIN TOPIC
DURATION OF CLASS: 1 HOUR 20 MINTS	NCVT WEEK NO:19-21

KEY POINTS & DESCRIPTION (AT LEAST 10 NOS PER CLASS)	EXAMPLE / INDUSTRY EXAMPLE	PHOTO / VIDEO / PRESENTATION/ WALL CHART
1) CLASS TEST OF MEASURING INSTRUMENT		
2)		
3)		
4)		
5)		
6)		
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10)		
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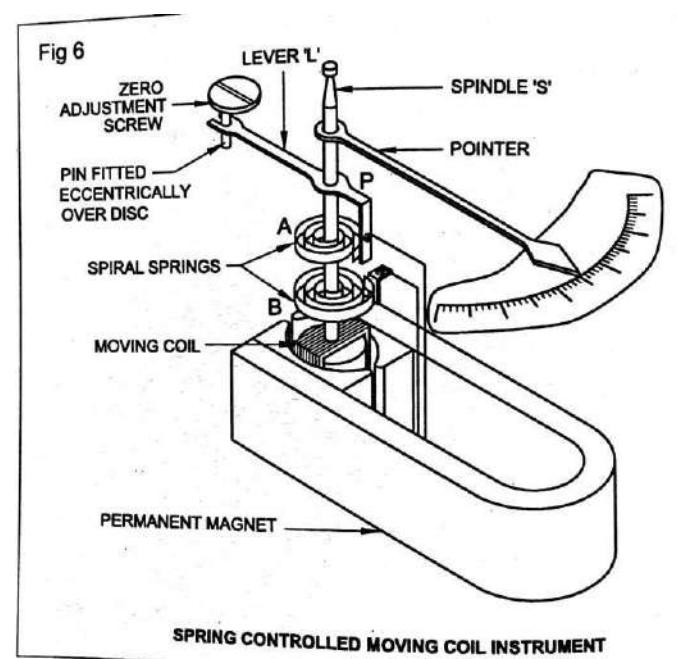


Fig.30

Fig 1

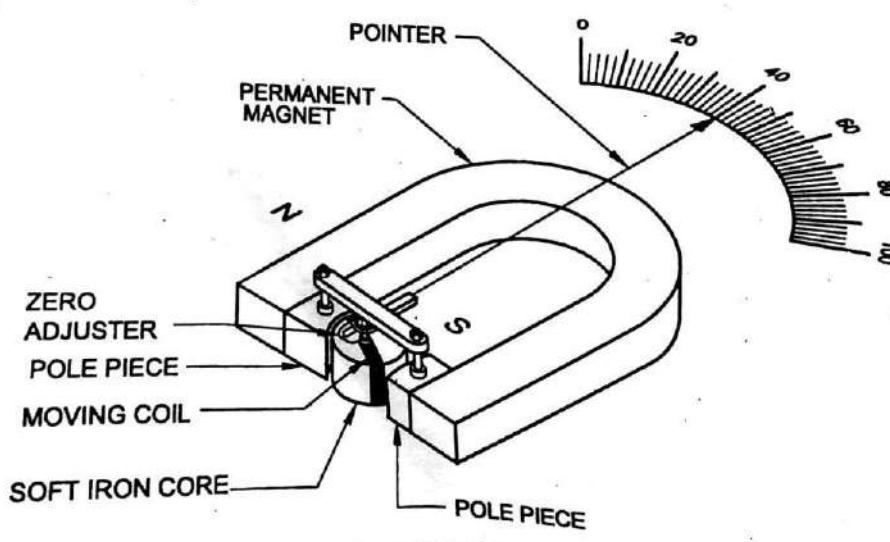
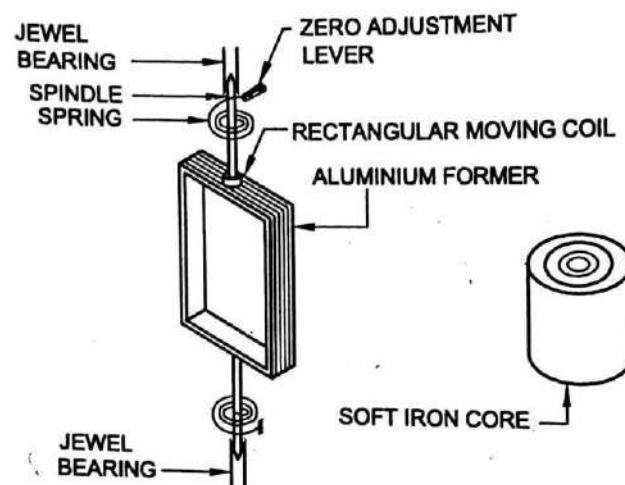


Fig.31