

MECHANICAL ENGG. BRANCH(EQUIPMENT LIUST)

LIST OF APPARATUS TO BE USED IN MECHANICAL ENGINEERING LAB INCLUDING ENERGY CONVERSATION LAB.

| Sl. No. | Name of Apparatus | Remarks |
|--------------------|---|----------------|
| 01 | Universal Testing Machine | |
| 02 | B.H.N. Testing Machine | |
| 03 | R.H.N. Testing Machine | |
| 04 | Relative Humidity Measurement | |
| 05 | Lancashire Boiler | |
| 06 | Babcock Nilcox Boiler | |
| 07 | Locomotive Boiler | |
| 08 | Cocfiran Boiler | |
| 09 | Experimental type Steam Turbine | |
| 10 | Two Stroke Petrol Engine (Model asking type) | |
| 11 | Four Stroke Diesel Engine (Model asking type) | |
| 12 | Two Stroke Diesel Engine (Model asking type) | |
| 13 | Four Stroke Petrol Engine (Model asking type) | |
| 14 | Four Stroke Petrol Engine (Test ring with full accessories) | |
| 15 | Impact Testing Machine | |
| 16 | Torsion Testing Machine for M-S. rod | |
| 17 | Solar Street light system | |
| 18 | Solar pumping system | |
| 19 | Solar drier system | |
| 20 | Gobar Gas Plant | |
| 21 | Refrigerator | |

**LIST OF APPARATUS TO BE USED IN
ENGG.MECHANICS LAB**

| Sl. No. | Name of Apparatus | Remarks |
|---------|---|---------|
| 01 | SEARLS APPARATUS TO MEASURE THE ELONGATION OF WIRE | |
| 02 | COMPRESSION TESTING M/C (1 TONNE CAPACITY) | |
| 03 | REACTION AT SUPPORT APPARATUS | |
| 04 | ROOF TRUSS APPARATUS (TO MEASURE REACTION AT SUPPORT) | |
| 05 | DEFLECTION OF BEAM (SIMPLY SUPPORTED BEAM APPARATUS) | |
| 06 | POLYGON LAW OF FORCES (VERIFICATION MG) | |
| 07 | TRIANGLE LAW OF FORCES (VERIFICATION APPARATUS) | |
| 08 | MOMENT OF INERTIA OF FLYWHEEL APPARATUS | |
| 09 | COEFFICIENT OF FRICTION OF INCLINED PLANE APPARATUS | |

LIST OF MACHINES / EQUIPMENTS FOR WORKSHOP

I - MACHINE SHOP

| SL. NO. | NAME OF ITEM | REQUIREMENTS | SPECIFICATION |
|----------------|---------------------|---------------------|----------------------|
| 01 | CENTRE LATHE | 05 Nos. | See Page-01 |
| 02 | MILLING MACHINE | 01 No. | See Page-02 |
| 03 | SHAPER MACHINE | 02 Nos. | See Page-03 |
| 04 | GRINDING MACHINE | 02 No. | See Page-04 |
| 05 | DRILL MACHINE | 02 No. | See Page-05 |
| 06 | SLOTTER MACHINE | 01 No. | See Page-06 |
| 07 | PLANNER MACHINE | 01 No. | See Page-06 |
| 08 | POWER HACKSAW | 02 No. | See Page-07 |

II - WELDING SHOP

| SL. NO. | NAME OF ITEM | REQUIREMENTS | REMARKS |
|----------------|----------------------------|---------------------|----------------|
| 01 | OXYGEN CYLINDER | 01 No. | |
| 02 | ACETYLENE CYLINDER | 01 No. | |
| 03 | PRESSURE GAUSES | 02 Nos | |
| 04 | PRESSURE REGULATOR | 02 Nos. | |
| 05 | WELDING TORCH | 01 No. | |
| 06 | GOGGLES | 10 Nos. | |
| 07 | HOSE PIPES | 10 Meters | |
| 08 | AC WELDING TRANSFORMER SET | 01 No. | |
| 09 | CHIPPING BRUSH | 02 Nos. | |
| 10 | WIRE BRUSH | 02 Nos. | |
| 11 | ARC SHIELD (EYE PROTECTOR) | 05 Nos. | |

III - CARPENTRY SHOP

| SL. NO. | NAME OF ITEM | REQUIREMENTS | REMARKS |
|---------|----------------------------|--------------|---------|
| 01 | STEEL RULE (SCALE) 1 Meter | 10 Nos. | |
| 02 | SCRIBER | 10 Nos. | |
| 03 | MARKING GAUGE | 05 Nos. | |
| 04 | MORTISE GAUGE | 05 Nos. | |
| 05 | TRY SQUARE | 10 Nos. | |
| 06 | DIVIDERS | 10 Nos. | |
| 07 | RIP SAW | 10 Nos. | |
| 08 | COPING SAW | 10 Nos. | |
| 09 | FIRMAR CHIESEL | 10 Nos. | |
| 10 | GAUGE CHIESEL | 02 Nos. | |
| 11 | IRON JACK PLANE | 02 Nos. | |
| 12 | TRYING PLANE | 05 Nos. | |
| 13 | RASP | 05 Nos. | |
| 14 | HAND DRILL | 05 Nos. | |
| 15 | GIMLET DRILL | 02 Nos. | |
| 16 | CLAMPING VICE | 10 Nos. | |
| 17 | C-CLAMP | 05 Nos. | |
| 18 | CROSS PEAN HAMMER | 05 Nos. | |
| 19 | CLAW HAMMER | 10 Nos. | |
| 20 | MALLET | 05 Nos. | |
| 21 | WOOD WORKING LATHE | 01 No. | |
| 22 | CIRCULAR SAW | 01 No. | |

IV - FITTING SHOP

| SL. NO. | NAME OF ITEM | REQUIREMENTS | REMARKS |
|---------|-------------------------|--------------|---------|
| 01 | BENCH VICE | 20 Nos. | |
| 02 | PIPE VICE | 04 Nos. | |
| 03 | TRY SQUARE | 10 Nos. | |
| 04 | SCRIBER & SURFACE GAUGE | 10 Nos. | |
| 05 | DOT PUNCH | 10 Nos. | |
| 06 | CENTRE PUNCH | 10 Nos. | |
| 07 | SURFACE PLATE | 01 No. | |
| 08 | ANGLE PLATE | 01 No. | |
| 09 | STEEL RULE | 10 Nos. | |
| 10 | VERNIER CALLIPERS | 05 Nos. | |
| 11 | MICROMETRE | 05 Nos. | |
| 12 | DIVIDERS | 10 Nos. | |
| 13 | OUTSIDE CALLIPERS | 10 Nos. | |
| 14 | INSIDE CALLIPERS | 05 Nos. | |
| 15 | FEELER GAUGE | 01 No. | |
| 16 | VERNIER HEIGHT GAUGE | 01 No. | |
| 17 | HACKSAW (FIXED FRAME) | 10 Nos. | |
| 18 | ROUND FILE | 10 Nos. | |
| 19 | SINGLE CUT FILE | 10 Nos. | |
| 20 | DOUBLE CUT FILE | 10 Nos. | |
| 21 | BALL PEAN HAMMER | 05 Nos. | |
| 22 | TAP WRENCH | 01 No. | |
| 23 | HAND DRILLING M/C | 01 No. | |
| 24 | PORTABLE GRINDER | 01 No. | |

V - BLACK SMITY SHOP

| SL. NO. | NAME OF ITEM | REQUIREMENTS | REMARKS |
|---------|--|--------------|---------|
| 01 | FURNACE OF HEARTH (WITH CENTRE BLOWER) | 05 Nos. | |
| 02 | SHOWEL | 05 Nos. | |
| 03 | POKER | 05 Nos. | |
| 04 | ANVIL | 05 Nos. | |
| 05 | SCEDGE HAMMER | 05 Nos. | |
| 06 | PICK UP TONG | 10 Nos. | |
| 07 | CHIESEL TONG | 05 Nos. | |
| 08 | CLOSE FLAT TONG | 05 Nos. | |
| 09 | PINUR TONG | 05 Nos. | |
| 10 | HOT CHIESEL | 05 Nos. | |
| 11 | COLD CHIESEL | 05 Nos. | |
| 12 | DRIFT | 02 Nos. | |
| 13 | SWAGE BLOCK | 01 No. | |
| 14 | BALL PEAN HAMMER | 05 Nos. | |
| 15 | CROSS PEAN HAMMER | 05 Nos. | |

VI - FOUNDRY SHOP

| SL. NO. | NAME OF ITEM | REQUIREMENTS | REMARKS |
|---------|----------------------------------|--------------|---------|
| 01 | SHOWEL | 02 Nos. | |
| 02 | TROWELS | 10 Nos. | |
| 03 | LIFTER | 10 Nos. | |
| 04 | RIDDLE | 01 No. | |
| 05 | VENT VICE | 10 Nos. | |
| 06 | DRAW SPIKE | 10 Nos. | |
| 07 | REAMMER | 05 Nos. | |
| 08 | SMOOTHERS | 10 Nos. | |
| 09 | SLICKES | 05 Nos. | |
| 10 | COPE & DRAG | 10 Set | |
| 11 | MALLET | 05 Nos. | |
| 12 | SWAB | 05 Nos. | |
| 13 | SPRUE CUTTERS | 05 Nos. | |
| 14 | SINGLE PLATE PATTERNS | 10 Nos. | |
| 15 | LOOSE PIECE PATTERNS | 05 Nos. | |
| 16 | PATTERN HAVING CORES (WOODEN) | 10 Nos. | |