



No. 1369 AITT/Dt. 26.06.23
VT-XVI-II/2019

From,

Dr. B.B.Mohanty,
Controller of Examinations.

To

The Principal,
All Govt.& Private ITI s of Odisha .

Sub: Bill of Materials for Practical Examination of AITT July-2023.

Ref:DGT Notification NoDGT-16/2022-TTCell (FTS No E-54304) Dated
28/04/2023

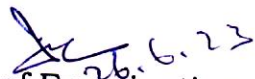
Sir,

In inviting reference to the DGT Notification on the subject cited above,
I am to say that the AITT July-2023 under CTS Examination in Annual
System for Practical Subjects have been scheduled with effect from 3rd July-
2023 to 7th July-2023.

In view of the above the Bill of Materials developed by the
SCTE&VT, Odisha are enclosed herewith for procurement of Raw Materials
& smooth conduct of Practical Examination of AITT July-2023.

Yours faithfully,

Encl: As above.


Controller of Examinations

**BILL OF MATERIAL REQUIRED FOR EACH TRAINEE FOR THE FOLLOWING TRADES DURING
THE ALL INDIA TRADE TEST OF CRAFTSMEN (ANNUAL PATTERN) UNDER CRAFTSMAN
TRAINING SCHEME & DUAL SYSTEM MODE TO BE HELD IN THE MONTH OF JULY -2023**

Year-2

**2ND YEAR BILL OF MATERIAL FOR AITT PRACTICAL EXAMINATION UNDER CTS & DST (YEARLY PATTERN) TO BE HELD
IN THE MONTH OF JULY-2023**

ELECTRICIAN

- | | |
|---------------------|------------|
| 1. Rheostat | 300 ohm |
| 2. Connecting cable | 1.5 mm sq. |
| 3. Insulated wire | 1.5 mm sq. |

FITTER

1. M.S Flat: 75×55×10 mm

ELECTRONICS MECHANIC

1. DSO, Function generator, Connecting probes
2. Insulated combination plier, Electrician Knife, Phase Tester, Fuse unit, 2-pole MCB, 3-pole MCB
3. CRO, Wire cutter, FM modulation & demodulation kit,
4. PWM modulation and demodulation kit

DRAUGHTSMAN CIVIL

1. Drawing Sheet
2. Cello Tape
3. Eraser
4. Mini Drafter
5. Pencil (h, hb, 2h)
6. Sharpener
7. Sand Paper

MECHANIC MOTOR VEHICLE

1. Emery Paper.
2. Timing Checking Light/Stroboscopic Light.
3. Wheel Balancing Machine.
4. Wheel Balancing Weight.

REFRIGERATION & AIR CONDITIONING TECHNICIAN

1. Gasket
2. Cotton waste
3. Grease
4. Refrigerant-R-22
5. Gas-Cane
6. Brazing Rod
7. Brazing Flux

WIREMAN

1. P.V.C Wire copper/ aluminum 1.5mm²-10mtrs.
2. P.V.C Wire copper-2.5mm², 250 volt-2mtrs.
3. Series testing board with lamp -200 watt
4. Fuse wire 35 S.W.G
5. Fuse wire 10Amp

ATTENDANT OPERATOR CHEMICAL PLANT

1. Distilled water
2. Lime power
3. Kerosene
4. Mercury
5. Leveling Pipe

LABORATORY ASSISTANT CHEMICAL PLANT

- 1 Coconut Oil
- 2 Castor Oil
- 3 Calcium Tablet
- 4 NaOH
- 5 Ethanol
- 6 Chemicals and glassware avail in the Lab

DRAUGHTSMAN (MECHANICAL)

1. Drawing sheet
2. Drawing pencil
3. Eraser
4. Cello tape
5. Sand paper
6. Computer in auto cad

TURNER

1. M.S. Rod \varnothing 45 X 165 L

INFORMATION COMMUNICATION TECHNOLOGY SYSTEM MAINTENANCE

1. Desk Top pc
2. Soundcard
3. Printer driver

INSTRUMENT MECHANIC

1. Psychomotor
2. RTDs
3. PLCs
4. Pressure gauges(Different range)
5. Dead weight Tester
6. Magnetic Flow meter
7. Thermocouple
8. Temperature Sensor Trainer Kit

9. Pneumatic Actuator
10. Valves (Different types of DCV)

MACHINIST

1. Dia 80 x80mm CI BLOCK

MECHANIC MINING MACHINERY

1. 75mmX70mmX10mm

MECHANICAL MACHINE TOOL MAINTENANCE

1. MS Bar-Dia40 x L 50

MECHANICS AGRICULTURE MACHINERY

1. Power thriller and power weedier
2. Cotton waste
3. Maize seller
4. Spare parts as per requirement
5. Trainee too kit
6. Kerosene
7. Grease gun
8. Air impact wrench

OPERATOR ADVANCED MACHINE TOOLS

1. Mild Steel (Round)- 80x65Ø
2. Mild steel (Round)- 90x45 Ø
3. Mild Steel (Round)- 85x50Ø

PAINTER GENERAL

1. Enamel paint different types color
2. MS plate
3. Art paint brush: 1.2.4. inch each
4. Sand paper
5. Stencil cutter with paper

SURVEYOR

1. Drawing sheet A3
2. Pencil HB
3. Eraser
4. Set of scale
5. Cello Tape

TECHNICIAN MECHATRONICS

1. Transformer 12-0-12v
2. Diode 1N4007 -2nos
3. LM317 IC -1no

4. Resistor assorted value
5. Electrolytic Capacitor (100 μ F)
6. Connecting wire

TEXTILE WET PROCESSING TECHNICIAN

1. Cotton fabric
2. Material for vat dyeing
3. Cotton coloured fabric
4. Light fastness tester

TOOL & DIE MAKER (Press Tool, Jigs & Fixture)

1. MS Round Rod \varnothing 50 mm \times 80 mm

Note: *All tools, Instrument and equipment as per syllabus of the trade should be kept ready in working condition.

Year-1

1ST YEAR BILL OF MATERIAL FOR AITT PRACTICAL EXAMINATION UNDER CTS & DST (YEARLY PATTERN) TO BE HELD IN THE MONTH OF JULY-2023

ELECTRICIAN

1. Underground cable 35 Sq.mm
2. Casing caping , conduct pipe & wire
3. Holder - 04 , 1.5 sq.mm wire

FITTER

1. Fe-310
2. STOCK SIZE -ROUND ROD-30 \varnothing X50

DRAUGHTSMAN CIVIL

1. Drawing Sheet
2. Cello Tape
3. Eraser
4. Mini Drafter
5. Pencil (h, hb ,2h)
6. Sharpener
7. Sand Paper

ELECTRONICS MECHANIC

1. IC LM-337,7486,7400
2. SMD KIT
3. Triac
4. Resistor 330 Ohm
5. LED
6. Diac

MECHANIC DIESEL

1. Diesel
2. Kerosene
3. Emery paper
4. soap
5. Oil fitter
6. Engine oil
7. Cotton waste

MECHANIC MOTOR VEHICLE

1. Cotton waste
2. Engine oil (5W30)

REFRIGERATION & AIR CONDITIONING TECHNICIAN

1. Cotton waste
2. Nitrogen cylinder
3. Pressure testing kit
4. Brazing rod
5. Flare nut
6. Soap Solution
7. Teflon tape role
8. Charging pipe
9. Refrigerant cylinder
10. flux
11. Unicon

WELDER

1. Ms Plate (150x 50x10)Mm

WIREMAN

1. 1 way Switch, Socket, Regulator, Holder , Board (8"x10"),Lamp 100wt.,Screw, PVC pipe (including all fittings)
2. Wire 1 sq mm.
3. Sulphuric Acid, Distil water

DRAUGHTSMAN (MECHANICAL)

1. Drawing sheet
2. Pencil
3. Eraser
4. Cello tape

TURNER

1. M.S. Round bar Φ 40x155 mm

ADDITIVE MANUFACTURING TECHNICIAN THREE D PRINTING

1. Wire Filament
2. Design Software

ATTENDANT OPERATOR CHEMICAL PLANT

1. M.S Flat
2. Graph Paper

BAKER AND CONFECTIONER

1. Sugar, flour, oil, salt, multigrain, yeast, bread improver, gluten, calcium
2. Milk powder, milk, chocolate
3. Whipping cream, pineapple crush, cherry, neutrality gel, lemon yellow color
4. Butter, Icing sugar, Baking powder, Baking soda
5. Chart paper, Basemen paper, Aluminum foil

BASIC COSMETOLOGY

1. Primer, Foundation, Concealer, Setting powder, Blush, Mascara, Lipstick, Blotting paper, Highlighter, Makeup Setting Spray, Bronzer, Lip Balm, Kajal and Eyeliner.
2. All-Purpose Shears, Blending Shears, Powerful Yet Lightweight Blow Dryer, Curling Iron, Razor, Paddle Brush, The Right Combs, And Sectioning Clips.
3. Hair cream, straightener machine and equipment

CARPENTER

1. Hard wood 75mm X 65mm X 800 mm – 2 Nos
2. Hard wood 75mm X 65mm X 450 mm – 3 Nos
3. Hard wood 10mm X 8mm X 75 mm – 10 Nos

COMPUTER HARDWARE AND NETWORK MAINTENANCE

1. LAN Cable - 10 mtr.
2. RJ45 Connector - 50pcs.

DRESS MAKING

1. Brown paper
2. Tailor chalk
3. Mathing colour thread
4. Febric - 20 mtrs
5. Button - 2 pkts

FOOD PRODUCTION GENERAL

1. Fish, Egg, Paneer
2. Lemon, Black pepper salt, Mustard, Garlic, Oil, Parsly, Mayonaise
3. Refined flour, Coriander Powder, Fenogric Powder, Red Chilli Powder, Cumin Seeds
4. Whole Red Chilli, Kashmiri Red Chilli Powder, Kasturi Methi
5. Onion, Tomato, Ginger, Garlic, FreshCream,Oil, Salat
6. Sweetcorn, Carrot, Frenchbean,Greenchili,Spring onion
7. Corn Strach, Whit pepper powder, vinegar
8. Milk, Sugar, Cadamon Powder
9. Bread, ghee, saffron, Rosewater, almond, Pista,sahajeera
10. Bagara Leaf, curry leaves, MintLeaves, Biriyani Rice

FOUNDRYMAN

1. Silica sand
2. Bentonite
3. Coal dust
4. Wood floor
5. Aluminum
6. Kerosene
7. Match box
8. Hard core

INDUSTRIAL PAINTER

1. Sheet Metal Sheet 6" × 12" size each student
2. Drawing sheet
3. Water colour
4. Brush

INFORMATION COMMUNICATION TECHNOLOGY SYSTEM MAINTENANCE

1. Resistor
2. Capacitor (Non-electrolyte)
3. Transistor-BC548
4. Varrow board
5. Ribbon wire
6. Hard Disk

INSTRUMENT MECHANIC

1. Trainer kit of FLIPFLOPs
2. OP-AMP Trainer
3. Microprocessor Trainer
4. Digital Trainer
5. Multimeter
6. Ammeter & Voltmeter
7. Logic Gate ICs & LED
8. CPU
9. Wattmeter
10. Necessary wires, switches
11. LCR Meter
12. Capacitors
13. CRO

IoT TECHNICIAN SMART AGRICULTURE

1. PH Sensor, NPK Sensor, Optical Sensor, Soil Moisture sensor (Capacitive & Resistive), Water flow sensor
2. IN4007, 1K ohm Resistor
3. Digital Trainer Kit
4. Arduino Uno Board
5. LDR, LED
6. Jumper wire

IoT TECHNICIAN SMART CITY

1. Solar Trainer Kit
2. Transformer
3. Arduino Uno Board
4. Ultrasonic Sensor, 7 Segment display
5. Jumper wire

IoT TECHNICIAN SMART HEALTHCARE

1. Transistor, resistor, SMD resistor (Different values).
2. Arduino Uno Board
3. POT (10K)
4. Jumper wire
5. Digital Trainer Kit
6. 12 lead ECG simulator trainer

LABORATORY ASSISTANT CHEMICAL PLANT

1. Copper carbonate
2. Dilute HCL
3. Dilute H_2SO_4
4. Caustic soda (NaOH)
5. Pendulum

MACHINIST

1. 60 x 60 x 60mm CI BLOCK.

MARINE ENGINE FITTER

1. Engine assembly
2. Cotton waste
3. Trainees tool kit
4. Spare parts as per requirement
5. Vernier caliper
6. Kerosene

MASON (BUILDING CONSTRUCTOR)

- | | |
|---------------------------|---|
| 1. Measuring tape 30 mtrs | 2. Ranging Rod. |
| 3. Chain pin. | 4. 1/2 inch stone chips |
| 5. Cement | 6. Sand |
| 7. Tray | 8. Trowel |
| 9. White Cement. | 10. M.S Try square of 2' length |
| 11. Level Spirit. | 12. Different colours of reject tile pieces |

MECHANIC AUTO BODY PAINTING

1. Different types of Topcoat for refinishing .
2. Different types of spray guns .
3. Thinner 200ml.

4. Rubber gloves
5. Cleaning brush for spray gun.
6. Different grits of sand paper used for body filler .
7. Disk sand papers of different grits.
8. Different sanding blocks used .
9. N35 Mask.
10. Cotton gloves.

MECHANIC AUTO BODY REPAIR

1. Body chassis of LMV/UNIBODY Chassis
2. A SUV, LMV pickup or sedan car as demo vehicle.
3. Hand gloves cotton
4. A working piston type stationary compressor
5. Different wrenches & pliers
6. Set of allen keys
7. Set of screw drivers
8. Rubber gloves
9. PPE for face & hands

MECHANIC MINING MACHINERY

1. 60mmX60mmX10mm

MECHANIC TRACTOR

1. Engine assembly
2. Cotton waste
3. Trainees tool kit
4. Spare parts
5. Grease gun
8. Vernier caliper
9. Kerosene

MECHANICAL MACHINE TOOL MAINTENANCE

1. Mild Steel (Flat)- 80x55x10
2. Mild steel (Flat)- 55x55x10

MECHANICS AGRICULTURE MACHINERY

1. Sheet metal (MS/GI - 460x440x.5 mm
2. Nipple 1/2 "
3. Union 1/2"
4. Tefflon tape

OPERATOR ADVANCED MACHINE TOOLS

1. Mild Steel (Flat)- 65x55x10-1 pic
30x30x10-1 pic

PAINTER GENERAL

1. Hammer tone paint
2. Metal surface 6" × 6" size 2 pc each student

3. Clear varnish
4. Thinner
5. Water proof paper-120 no
6. Sand paper
7. Wood surface 12" × 6" size each student

PLASTIC PROCESSING OPERATOR

1. Available mould for hand injection moulding machine.
2. HDPE (Injection Grade) Moulding Materials
3. PP SHEET for thermo vacuum forming machine
4. Available Mould for thermo vacuum forming machine
5. Required tools and equipment.

PLUMBER

1. Brick, sand, cement, aggregate, gully trap, greating, hemp yarn
2. PVC flange - 02 nos., Nut& bolts, gasket, solvent cement as per requirement
3. 1/2" PVC - 600 mm long

SEWING TECHNOLOGY

1. Febric
2. Mathing colour thread
3. Plain Febric
4. Tailor chalk
5. Botton
6. Pest bocrom

SHEET METAL WORKER

1. G.I. Sheet of size : (350 X 300 X 0.6) in mm of 24 SWG

SOLAR TECHNICIAN (ELECTRICAL)

1. Connecting leads
2. Lamp BC ---- 40W 240V
3. Lamp BC ---- 100W 240V
4. Lamp BC ---- 200W 240V
5. Graph papers

SURVEYOR

1. Drawing sheet A3-One for Each
2. Pencil HB
3. Eraser
4. Set of scale
5. Cello Tape

TECHNICIAN MECHATRONICS

1. Mild Steel Rod dia(26x105)mm =1 each

TEXTILE WET PROCESSING TECHNICIAN

1. Burette with burette stand
2. Pipettes
3. Buffer solution

4. Erichrome black T
5. Magensium sulfate
6. EDTA
7. MS flat (95x77x5) mm

TOOL & DIE MAKER (Press Tool, Jigs & Fixture)

1. MS Flat – 50mm x 50mm X10mm

HORTICULTURE

1. Main Pipe
2. Distributor Pipe
3. Pipe line for the plant
4. Nozzle
5. Evaporation meter
6. Dry & wet bulb Thermometer
7. Minimum & Maximum Temperature Meter
8. Power Trailer
9. Tractor
10. Plough
11. Rotavator
12. Secateur
13. Khurpi
14. Kudali
15. Pruning knives

SMARTPHONE TECHNICIAN CUM APP TESTER

1. Different types of Transistors
2. Jumper wire
3. Solder
4. Different Electronics passive and active components

PUMP OPERATOR CUM MECHANIC

- | | |
|--------------------|---------------------------|
| 1. Filter element- | Oil type air filter –DF10 |
| 2. Cotton Waste- | 2 Kg. |
| 3. Kerosene- | 5 Ltr. |
| 4. Lubricant Oil- | 20W 40-2 Ltr. |
| 5. Wire Brush- | 05 Pcs. |
| 6. Soap Oil- | 1 Ltr. |
| 7. Diesel- | 5 Ltr. |
| 8. Jubilee Clamp- | 25 MM 2 Pcs |
| | 50 MM 2 Pcs |

Note: *All tools, Instrument and equipment as per syllabus of the trade should be kept ready in working condition.