

**BILL OF MATERIAL REQUIRED FOR EACH TRAINEE OF THE FOLLOWING  
TRADES FOR ALL INDIA TRADE TEST OF CRAFTSMAN (SEMESTER PATTERN) UNDER  
CRAFTSMAN TRAINING SCHEME TO HELD IN THE  
MONTH OF JANUARY – 2019  
SEMESTER – I (ENGINEERING & NON ENGINEERING TRADES)**

<b><u>Trade code</u></b>	<b><u>Trade name/ Raw material required for each trainee</u></b>	<b><u>Quantity</u></b>
<b>001.</b>	<b>BUILDING MAINTENANCE</b>	
	i) Cement	: 1 Bag
	ii) Sand	: 15 sq.ft.
	iii) Tiles	: 5 pieces
	iv) Paint	: As required
	v) Tools	: As required
	vi) Painting Brush	: 1 No.
	vii) Thinner	: As required
	Take all required item as per convenience	
<b>002.</b>	<b>EXCAVATOR OPERATOR*</b>	
<b>003.</b>	<b>MECHANIC REPAIR &amp; MAINTENANCE OF TWO WHEELERS</b>	
	i) One Scooter in working condition.	
	ii) All the common tools used in a two wheeler repair workshop.	
	iii) Raw material used in servicing of a two wheeler.	
<b>004.</b>	<b>MECHANIC AUTO ELECTRICAL &amp; ELECTRONICS</b>	
	i) MS Rod $\phi$ 12 mm X 100 mm	: 1 No.
	ii) Lead Acid Battery in working condition, Hydrometer	: 1 No. each
	iii) All the common tools used in Auto Electrical Fitter Workshop	: As required
<b>005.</b>	<b>SANITARY HARDWARE FITTER</b>	
	i) Cast iron pipe	: 10 mm
	ii) Fixing Solvent (if required)	
	iii) Steel/PVC Pipes (as required)	
	iv) Water closet	: 1 No.
<b>006/210.</b>	<b>ARCHITECTURAL ASSISTANT</b>	
	The hand tools such as pencils, eraser, cutter, pens, setsquare, rulers and calculators should be allowed and has to bring by candidates which was provided at introduction of the course.	
	i) A1 size cartridge sheets	: 65 Nos.
	ii) A1 size tracing sheets for rough sketching	: 2 Nos.
	iii) Thread of 5 m for tying sheet	: 1 No.
	iv) Stapler	: 1 No.
	v) A1 size drafting table and stool	: 1 Set
	vi) Chair and table for examiner as per requirement	
<b>007/206.</b>	<b>CARPENTER</b>	
	Soft wood 320 mm x 80 mm x 50 mm –	: 1 No.

**008. DOMESTIC PAINTER \*****009/214. FOUNDRYMAN**

- i) Any available Single Piece Pattern : 1 No.  
 ii) Set of complete tools (Molding board, drag and cope boxes, Molding sand, Parting sand, Rammer, Strike off bar, Bellows, Riser and Sprue pins, Gate Cutter, Vent rod, Draw spike, Wire Brush etc)

**010. GOLD SMITH\*****011. INDUSTRIAL PAINTER**

- i) Metal Sheet 24 SWG: 150 mm x 150 mm : 1 No.  
 ii) Hammer : 1 No.  
 iii) Seam Welding Apparatus : 1 No.  
 iv) Spray Gun : 1 No.  
 v) Compressor : 1 No.  
 vi) Computer with Graphics tool : 1 No.  
 vii) Printer : 1 No.

**012/208. INTERIOR DECORATION & DESIGNING**

Drawing sheet, Drawing instrument, Mini drafter, Pencil, Eraser etc. : As required

**013. MARINE ENGINE FITTER**

- i) MS Flat of size 65 mm x 65 mm x 10 mm : 1 No.  
 ii) Tools equipments & instruments as per STL for the trade

**014/211. MASON (BUILDING CONSTRUCTOR)**

- i) No. of bricks- 500  
 ii) Sand – 5 cu. ft.  
 iii) Cement : 1 Bag  
 iv) Mason tools (pan, trowel, plumb bob, spirit level, float etc) : 1 Set

**015. MECHANIC REPAIR & MAINTENANCE OF HEAVY VEHICLES**

- i) One Heavy Vehicle with hydraulic brake system in working condition  
 ii) Wheel balancing machine for HVM wheel balancing  
 iii) Raw material required in servicing of a vehicle in HVM workshop  
 iv) Common tools and equipments used in HVM repairing Workshop.

**016. MECHANIC REPAIR & MAINTENANCE OF LIGHT VEHICLES**

- i) One LMV with tyres and tubes in working condition  
 ii) One LMV with working brake system  
 iii) Raw material required in servicing of a vehicle in MMV workshop  
 iv) All the common tools and equipments used in a LMV repair workshop

**017/201. MECHANIC (DIESEL)****018/202. MECHANIC (TRACTOR)****024/205. PUMP OPERATOR-CUM-MECHANIC****203. MECHANIC AUTO ELECTRICIAN AND ELECTRONICS****204. MECHANIC MOTOR CYCLE**

- i) New/ old piston, piston pin, crankshaft of 4 cylinder engine.  
 ii) Outside micrometer of various sizes  
 iii) A lead Acid battery : 1 No.  
 iv) Hydrometer : 1 No.

Contd..3/-

**019. MECHANIC COMMUNICATION EQUIPMENT MAINTENANCE**

- i) Flexible wire/ hook up wires, Rosin core solder 18 gauge, spare components, Trainee Kit, Defective set with the symptom "Problem in dialing"
- ii) Trainees Kit: Oscilloscope, 20 MHz, dual trace: Voltmeter: Multimeter, Soldering iron 25 W. 240 V: Lug board General purpose 5 points : Diode 1n4007: Resistor 470 W; Step down transformer 240 V, 24 V 500mA; multi Strand wire, red, blue, 23/0.2 of 250V grade; Base board; main cord 3 core cable- 23/0.2 od 250V grade; Nuts, bolts and washers; 3 pin plug 5A 250 V; Resin core solder 60/40
- iii) Semiconductor diode IN4001 or IN4007, Multimeter, Voltmeter, Milliammeter, Potentiometer W, SPT switch 6 A 240 W, Bread board, Patch cords with Clips, required resistors and suitable connecting wires
- iv) 5MHz oscilloscope single beam type; Probes for oscilloscope; + SCR +Diac
- v) Cordless phone, Test equipment for cordless phone.

**020. MECHANIC LENS/PRISM GRINDING**

- i) Glass 15cm x 15cm x 5 mm thick : 1 No.
- ii) Glass 10cm x 10cm x 10 mm thick : 1 No.
- iii) Mirror 20 cm x 20 cm x 3 mm thick : 1 No.

**021. PHYSIOTHERAPY TECHNICIAN\*****022. PLASTIC PROCESSING OPERATOR**

- i) Box wooden for Extension Board
- ii) Sheet with six holes
- iii) Electrical Socket ( 5 A & 15 A)
- iv) Electrical Switches
- v) Cable
- vi) Universal testing machine for plastic
- vii) Melting point tester
- viii) Impact tester
- ix) Injection Moulding Machine.

**023/209. PLUMBER**

- i) M. S. Pipe  $\phi$  50 mm x 3 mm wall thickness and 77 mm long : 2 Nos.
- ii) 1" PVC pipe – Suitable length
- iii) Threading die (one inch)
- iv) Tee, elbow, gate valve
- v) Floor trap for kitchen
- vi) Assorted mason's tools
- vii) Gas welding set up, necessary CCMS filler wire, tools, accessories and instruments : As required
- viii) All equipment, accessories, tools and instruments as provided in the syllabus to be kept ready.

- 025. RUBBER TECHNICIAN \***
- 026/213. SHEET METAL WORKER**  
 i) Drawing Sheet : 1 No.  
 ii) G.I. sheet 24 SWG 335 mm x 160 mm : 1 No.
- 027. STONE MINING MACHINE OPERATOR \***
- 028. STONE PROCESSING MACHINE OPERATOR \***
- 029/212. WELDER**
- 268. WELDER (GMAW & GTAW)**
- 269. WELDER (PIPE)**
- 270. WELDER (STRUCTURAL)**
- 271. WELDER (WELDING & INSPECTION)**
- 272. WELDER (FABRICATION & FITTING)**  
 i) M.S. flat 100 mm x 50 mm x 10 mm : 2 Nos.  
 ii) M.S. flat 100 mm x 50 mm x 3 mm : 3 Nos.  
 iii) Consumable for Arch Welding and Gas Welding processes.
- 029/212 WELDER (NSQF)**  
 i) MS flat 210 mm x 110 mm x 10 mm : 1 No.
- 207. SURVEYOR**  
 i) Chain (20 m) : 1 No.  
 ii) Wooden Peg- : 10 Nos.  
 iii) Offset rod : As required  
 iv) Field book : 1 No.
- 241. ARCHITECTURAL DRAUGHTSMANSHIP**  
 i) A1 size Cartridge sheets : 4 Nos.  
 ii) A1 size tracing sheets for rough sketching : 2 Nos.  
 iii) Thread for tying sheet : 5 m  
 iv) Stapler : 1 No.  
 v) A1 size drafting table and stool : 1 No. each  
 vi) Chair and table for examiner as per requirement : 1 No. each
- 264. COMPUTER HARDWARE & NETWORK MAINTENANCE**  
 i) IC of decoder : As required  
 ii) Diode : As required  
 iii) Resisters : As required  
 iv) Capacitors : As required  
 v) Emergency lamp : 1 No.  
 vi) Personal computer : 1 No.

**266/267. MECHANIC AUTO BODY REPAIR/MECHANIC AUTO BODY****PAINTING**

- i) Tools/ Instruments : As required
- ii) Lead acid storage battery- 6V : 1 No.
- iii) Hydrometer : 1 No.
- iv) Sandpaper
- v) Cleaning cloth : As required
- vi) Baking Soda : As required
- vii) Petroleum Jelly : As required
- viii) Distilled Water : As required

**030. ATTENDANT OPERATOR (CHEMICAL PLANT)**

- i) Try square, MS flat 50 mm x 40 mm x 10 mm : 1 No.
- ii) Simple pendulum : 1 No.
- iii) Apparatus to determine thermal conductivity of metal rod. 4 metal rod - Assorted

**031/217. DRAUGHTSMAN (CIVIL)**

- Drawing sheet (A1) : 1 No.

**031/217. DRAUGHTSMAN (CIVIL) (NSQF)**

- i) Drawing sheet (Imperial Size) : 1 No.
- ii) White Paper : 2 Nos.
- iii) Drawing board, Mini Drafter, Drawing Instruments etc. : As required

**032/224. DRAUGHTSMAN (MECHANICAL)**

- Drawing Board, Mini drafter, Drawing sheet, Drawing instruments : As required

**033/231. ELECTRICIAN (NSQF)**

- i) Wire of size 7/120 SWG
- ii) Wire cutter and stripper
- iii) Soldering iron, flux and soldering wire
- iv) Megger
- v) Available underground cable connection
- vi) Connecting wires
- vii) Required AC supply : single phase
- viii) Resistive inductive load
- ix) MI type voltmeter ( 0-250V)
- x) MI type ammeter (0-5 A)
- xi) Dynamometer type single phase energy meter
- xii) Variac (0-270 V)
- xiii) Choke coil
- xiv) Multimeter
- xv) Star and delta connected load
- xvi) Three phase supply
- xvii) Connected wires

**033/231. ELECTRICIAN****035/233. ELECTROPLATER****041/234. LIFT MECHANIC/LIFT ESCALATOR MECHANIC****070/232. WIREMAN**

i) Wheatstone bridge set up	: 1 No.
ii) Unknown value resistors	: 1 set
iii) DC voltmeter and Ammeter	: 1 Set
iv) DC Power Supply	: 1 No.
v) Experimental set up to measure internal resistance of a cell	: 1 set
vi) 1.5 V or 2V cells	: 45 Nos.
vii) Wooden board	: 1 No.
viii) Fuse holder	: 1 No.
ix) ON/OFF switch 15 Amp.	: 1 No.
x) 3 Pin, 15 A socket	: 1 No.
xi) Lamp holder	: 1 No.
xii) PVC Wire 4 mm	: 2 m
xiii) Lamp 60 W	: 2 Nos.
xiv) Set of Hand tools used in Workshop	: 1 set
xv) Base Copper conductor (2 feet long)	: 2 Pcs.

**034/219. ELECTRONICS MECHANIC (NSQF)**

- i) Lamp
- ii) Installed power socket with AC supply
- iii) Electrolyte
- iv) Hydrometer
- v) Battery with required accessories and spare parts
- vi) CRO with probes
- vii) Function generator
- viii) Multimeter
- ix) Various switches like SPST, SPDT, DPST, DPDT, tumbler, push button, toggle, piano switches
- x) Capacitors
- xi) LCR meter
- xii) Resistors
- xiii) Desktop computer with required accessories, software and printer
- xiv) Required DC and AC supply
- xv) Connecting wires

**034/219. ELECTRONICS MECHANIC****049/273. MECHANIC CONSUMER ELECTRONICS MECHANIC CONSUMER ELECTRONICS APPLIANCES****265. TECHNICIAN POWER ELECTRONICS SYSTEMS**

- i) Trainees Kit, Step down transformer(12 V-0- 1V, 500MA), General purpose PCB 4" x 6 " ;  
Hook-up wire (read and black)- 4 nos. Resister 470 ohms – 1 No. Diode IN4007- 4 Nos.  
Electrolytic Capacitor – 1000 MF/16V- 1No.,Resistance 100Ω- 2W
- ii) 5 MHz oscilloscope single beam type; Probes for oscilloscope; DC power supply 0-30 V, 1A
- iii) Bread board and connecting wires ; IC 741; Multimeter; Dual power supply (0-30)V ;  
Resister (1kΩ, 2.2kΩ, 100Ω) ¼ watt.
- iv) A PC with power point application.

Contd..7/-

<b>036/227. FITTER (NSQF)</b>	
i) MS Flat 55 mm x 45 mm x 10 mm	: 2 Nos.
<b>036/227. FITTER</b>	
i) M.S. Flat 55 mm x 45 mm x 7 mm	: 2 Nos.
<b>037. INSTRUMENT MECHANIC</b>	
i) Vernier caliper	: 1 No.
ii) Piece of electrical wire (8" long)	: 1 No.
iii) Resistance wire	: 1 No.
iv) DC voltmeter	: 1 No.
v) DC Ammeter	: 1 No.
vi) DC power supply 0-12 V @2A	: 1 No.
vii) LCR meter	: 1 No.
viii) Inductor, Capacitor & resistor	: 1 each
ix) High value resistors (as per range calculation)	: 1 No.
x) DC meter	: 1 No.
xi) Low value shunt resistor (as per calculation)	: 1 No.
<b>038. INSTRUMENT MECHANIC (CHEMICAL PLANT)</b>	
i) Slide wire wheat stone bridge	: 1 No.
ii) DC power supply	: As required
iii) Digital voltmeter (DVM)	: 1 No.
iv) Switch with resistor	: As required
v) Key	: As required
vi) Connecting wires	: As required
vii) Digital multimeter	: 1 No.
viii) Bread Board	: As required
ix) Resistors (1 K $\Omega$ (2), 1.2 K $\Omega$ (2), 2.4 K $\Omega$ )	: As required
x) Double walled calorimeter	: 1 No.
xi) Heating coil with stirrer	: 1 No.
xii) Thermometer	: 1 No.
xiii) Ammeter	: 1 No.
xiv) Voltmeter	: 1 No.
xv) Stop watch	: 1 No.
xvi) Rheostat	: 1 No.
xvii) Battery	: 1 No.
xviii) Single pole switch	: 1 No.
<b>039/220. INFORMATION TECHNOLOGY &amp; ELECTRONIC SYSTEM MAINTENANCE / INFORMATION &amp; COMMUNICATION TECHNOLOGY SYSTEM MAINTENANCE</b>	
i) Ammeter	: 1 No.
ii) Voltmeter	: 1 No.
iii) Power supply	: As required
iv) Bread board	: 1 No.
v) Discrete components (Diodes, resistances)	: As required

vi) Breadboard/ PCB	: 1 No.
vii) Function generator	: 1 No.
viii) CRO	: 1 No.
ix) NAND gate IC	: 1 No.
x) TTL output source	: As required
xi) LEDs	: As required
xii) Connecting wires	: As required
xiii) Five types of switches	: 1 No. each
xiv) Multimeter	: 1 No.

**Others:** Soldering iron and de-soldering pump suitable for mounting discrete components, ICs etc on the PCB. All required tools and other required components (Discrete /ICS etc), Bread board, CRO, Function generator etc.

**040. LABORATORY ASSISTANT (CHEMICAL PLANT)**

i) Searle's apparatus	: 1 No.
ii) Steel wires	: As required
iii) Screw gauge	: 1 No.
iv) Meter scale	: 1 No.
v) Dead load (about 2 kg)	: 1 No.
vi) Hanger with slotted (about 10 pieces, each of 0.5 kg mass)	: 1 No.
vii) Pipette (10 mL)	: 1 No.
viii) Volumetric flask (1000mL)	: 1 No.
ix) Measuring cylinder	: 1 No.
x) Funnel	: 1 No.
xi) Dropper	: 1 No.
xii) Stock solution of hydrochloric acid	: As required
xiii) Washing bottle	: 1 No.
xiv) Distilled water	: As required
xv) Battery	: 1 No.
xvi) Copper sulphate solution	: As required
xvii) Rheostat	: 1 No.
xviii) Key	: 1 No.
xix) Ammeter	: 1 No.
xx) Cathode	: 1 No.
xxi) Anode	: 1 No.

**042/222. MACHINIST**

i) M. S. Flat: 70 mm x 50 mm x 10 mm	: 1 No.
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**043/223. MACHINIST (GRINDER)**

i) MS Flat: 52 mm x 52 mm x 12 mm	: 1 No.
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**044. MAINTENANCE MECHANIC (CHEMICAL PLANT)**

- i) Simple Pendulum, A metallic bob, A laboratory stand, a split cork, vernier calipers, a stop watch.
- ii) pH meter, pH papers, buffer solutions.
- iii) Round bottom distillation flask with side neck 500ml, condenser for distillation Lebig 30 cm long, Rubber Cork, Heating Mantle, Conical flask.

**Contd..9/-**



- 045. MARINE FITTER**  
 i) M S Flat of size 65 mm x 65 mm x 12 mm : 1 No.  
 ii) M S Flat of size 25 mm x 25 mm x 12 mm : 1 No.
- 046. MECHANIC MINING MACHINERY \***
- 047/216. MECHANIC AGRICULTURE MACHINERY**  
**055/215. MECHANIC MOTOR VEHICLE**  
 i) G.I Sheet of 26 SWG 160 mm X120 mm : 1 No.  
 ii) Rivits  
 iii) Mallets  
 iv) Parsia Blue  
 v) Micrometer  
 vi) Clean Cloth  
 vii) Snip  
 viii) Snip
- 
- 048. MECHANIC COMPUTER HARDWARE**  
 i) 2 Test lamp  
 ii) Tester- Ac power  
 iii) Relay for identification of coil voltage  
 iv) Resistors  
 v) Multimeters  
 vi) Required items to carry out practical
- 050 MECHANIC-CUM-OPERATOR ELECTRONIC COMMUNICATION SYSTEM**  
 i) Fixed resistor of any suitable value  
 ii) Var resistor  
 iii) Megger earth tester  
 iv) Electrode  
 v) Copper wires  
 vi) Transformer of suitable rating  
 vii) Ammeter 0-10 A MI  
 viii) Voltmeter 0-500 V MI  
 ix) Autotransformer  
 x) Single phase supply  
 xi) Mechanical Tool Kit  
 xii) CRO  
 xiii) Function generator  
 xiv) Plotting paper  
 xv) Supply  
 xvi) Probe and connecting wires

- xvii) AC voltmeter (0-300 v)
- xviii) AC ammeter (0-5 A)
- xix) Rheostat (10 $\Omega$ , 2.5A)
- xx) CRO
- xxi) Rand C of Suitable value
- xxii) Connecting wires and probe
- xxiii) Breadboard
- xxiv) Multimeter
- xxv) AC supply
- xxvi) Moving iron type voltmeter
- xxvii) PMMC type voltmeter
- xxviii) Tool Kit

**051. MECHANIC INDUSTRIAL ELECTRONICS**

- i) 7402 NOR gate
- ii) 7400 NAND gate
- iii) Digital Electronics Trainer's Kit
- iv) IC 74155 (De multiplexer IC)
- v) NOR gate
- vi) AND gate
- vii) OR gate
- viii) Encoder IC
- ix) Dual power supply
- x) Oscilloscope
- xi) Operational Amplifier
- xii) Transistors
- xiii) Components in circuit diagram
- xiv) Function Generator

**052/225. MECHANIC MACHINE TOOL MAINTENANCE**

- i) MS Flat 105 mm x 55 mm x 12 mm

: 1 No.

**053. MECHANIC MECHATRONICS**

- i) Hand Operated Chain Pulley Block

**054. MECHANIC MEDICAL ELECTRONICS**

- i) Multimeter, necessary components sample
- ii) Ceiling fan, Multimeter, test lamp
- iii) Bread Board, UJT, other discrete components, power supply, CRO
- iv) NAND gate, ICs, bread board, power supply
- v) Digital Gate ICs (NAND, AND, OR), bread board, power supply
- vi) DOL starter, single phase motor

**OTHERS:** Soldering iron and de soldering pump suitable for mounting discrete components, ICs etc on the PCB. All required tools and other required components (Discrete/ICs etc.) bread board, CRO, Function Generator, Multimeter etc.

**056/218. MECHANIC REFRIGERATION AND AIR-CONDITIONING**

- i) Three door refrigerator 300L carrying with HC R-600a.
- ii) Other materials as per requirement.

**057. MECHANIC RADIO AND TELEVISION**

- i) Zener diode
- ii) Transistors
- iii) Connecting wire
- iv) Resistors
- v) Trainer kit DC Shunt motor
- vi) Multimeter
- vii) CRO
- viii) Bread Board

**058/226. OPERATOR ADVANCE MACHINE TOOL**

- i) Machine tool – centre lathe
- ii) Cutting tool - longitudinal turning, grooving tool, knurling tool, drilling tool, threading tool
- iii) Measuring tools- steel rule, outside caliper, vernier caliper, micrometer
- iv) Dead or line centres
- v) M.S. Rod  $\varnothing$  30 x 150 mm : 1 No.

**059. PAINTER GENERAL**

- i) Wood plate, flate brush sable hair, enamel paint
- ii) Cardboard, cutter, spray colour, round brush sable hair
- iii) A3 and A4 sheet and other material required for practical

**060. RADIOLOGY TECHNICIAN**

- i) Tools and equipments used in radiation protection
- ii) USG and CT scan Machine
- iii) Dosimeters, TLD badges, survey meter, and solutions and tools required for measuring barrier thickness.

**061/235. SPINNING TECHNICIAN**

- i) Well equipped lab
- ii) Job pieces for chipping
- iii) Electric appliances for installing

**062. SURVEYOR**

- i) Chain- 30 m : 1 No.
- ii) Arrows : 10 Nos.
- iii) Cross staff with stand : 1 No.
- iv) Ranging Rods : 10 Nos.
- v) Field book : 1 No.
- vi) Drawing sheets- : 2 Nos.
- vii) Prismatic compass : 1 No.
- viii) Measuring Tape : 1 No.

**063/236. TEXTILE MECHATRONICS**

- |   |                      |
|---|----------------------|
| i) 3/20 PVC wire                        | : 10 mts / candidate |
| ii) Diode IN 4007                       | : 4 Nos./ candidate  |
| iii) Power supply                       |                      |
| iv) Solder as reqd.                     |                      |
| v) Soldering iron                       |                      |
| vi) 23/76 SWG flexible wire             |                      |
| vii) Ammeter (0-50) mA                  |                      |
| viii) Volt meter (0-300V)               |                      |
| ix) Electrolytic Battery 12             |                      |
| x) Flux                                 |                      |
| xi) Desoldering pump                    |                      |
| xii) Few Resistors of Different ratings |                      |
| xiii) Multimeter (Digital)              |                      |
| xiv) Single Phase power factor meter    |                      |

**064/237. TEXTILE WET PROCESSING TECHNICIAN****069/238. WEAVING TECHNICIAN**

- |   |         |
|---|---------|
| i) Cartridge Sheet                      | : 1 No. |
| ii) Teak wood (Size – 245 x 45 x 45 mm) | : 1 No. |
| iii) Jack plane                         | : 1 No. |
| iv) Tri square                          | : 1 No. |
| v) Steel Rule                           | : 1 No. |
| vi) Pencil                              | : 1 No. |
| vii) Marking gauge                      | : 1 No. |
| viii) Bench vice                        | : 1 No. |
| ix) Firmer chisel                       | : 1 No. |
| x) Mallet                               | : 1 No. |
| xi) Tenon saw                           | : 1 No. |
| xii) Voltmeter                          | : 1 No. |
| xiii) Ammeter                           | : 1 No. |

**065/228. TOOL & DIE MAKER (DIES & MOULDS)****066/229. TOOL & DIE MAKER (PRESS TOOLS, JIGS & FIXTURES)**

- |                                   |         |
|-----------------------------------|---------|
| i) M.S Round $\phi$ 40 mm x 80 mm | : 1 No. |
|-----------------------------------|---------|

**067/221. TURNER (NSQF)**

- |                             |         |
|-----------------------------|---------|
| MS Round $\phi$ 40 x 110 mm | : 1 No. |
|-----------------------------|---------|

**067//221. TURNER**

- |                                 |         |
|---------------------------------|---------|
| M. S. Rod $\phi$ 45 mm x 110 mm | : 1 No. |
|---------------------------------|---------|

**068. VESSEL NAVIGATOR\*****230. METAL CUTTING ATTENDANT (FOR VISUALLY IMPAIRED PERSON) \*****274. REFRACTORY TECHNICIAN\***

- 275. MECHANIC AIR-CONDITIONING PLANT**  
 i) MS Flat 100 mm x 25 mm x 6 mm : 1 No.  
 ii) MS Flat 50 mm x 25 mm x 6 mm : 2 Nos.  
 iii) Tools & Machines : As required
- 284. CIVIL ENGINEERING ASSISTANT**  
 i) Bricks- : 100 Nos.  
 ii) Cement- : 8 Kg  
 iii) Sand – : 50 kg  
 iv) Set of construction and Plastering tools : 1 No.
- 277. INFORMATION TECHNOLOGY**  
 i) PC with UPS  
 ii) Software window 7 with all drivers
- 071. CABIN / ROOM ATTENDANT**  
 i) Complaint register and other stationary items  
 ii) Fire Extinguishers  
 iii) Bed linen
- 072. COMPUTER AIDED EMBROIDERY & NEEDLE WORK**  
 i) Computer embroidery machine : 1 No.  
 ii) Glazed cotton/ silk/ satin fabric : ½ metre  
 iii) Tracing Paper : 1 sheets  
 iv) Embroidery Threads : 3 (in different colours)  
 v) Embroidery kit : 1 No.
- 073. CORPORATE HOUSE KEEPING\***
- 074. COUNSELLING SKILLS**  
 Aid Box, Cotton Seizer, Bandage, Dettol, Necessary medicine.
- 075. CRECHE MANAGEMENT \***
- 076. DRIVER CUM MECHANIC**  
 i) Tools/ Instruments  
 ii) Automatic wheel alignment machine with sensors and accessories  
 iii) Wheel Aligner bay/ ramp/ pit with rolling jack  
 iv) DE spanner set  
 v) Torque wrench  
**Machine:** Automobile vehicle
- 077. DATA ENTRY OPERATOR**  
 PCs with related software and accessories and internet connection, Availability of Microsoft operating system CD/ DVD, Network Printer

**078. DOMESTIC HOUSE KEEPING**

- i) Antiseptic Spray
- ii) Scrubbing brush, Sponges, Cotton pads, Glass clothes
- iii) Nylon scrubber
- iv) Shoe polishing brush
- v) Soft brooms
- vi) Spray cans

**079. EVENT MANAGEMENT ASSISTANT\*****080/919. FIRE MAN**

- i) Extension ladder
- ii) Hose reel system
- iii) Sprinkler
- iv) Hydrant- stand pipe type
- v) Fire suit
- vi) First Aid Box.

**081. FRONT OFFICE ASSISTANT**

- i) Computer system with MS word software
- ii) Telephone system
- iii) Front office stationary items

**082. HOSPITAL WASTE MANAGEMENT \*****083. INSTITUTION HOUSE KEEPING**

- i) Paper, pen, seasonal Flowers, ferns and flower arrangement materials, laundry, Detergent, cleaning material and equipment as required, in reasonable quantities

**084. INSURANCE AGENT\*****085. LIBRARY & INFORMATION SCIENCE\*****086. MEDICAL TRANSCRIPTION**

- i) Computer, Transcription keyboards, headphones, paper record and audio files, Pathological finding reports.

**087. NETWORK TECHNICIAN**

- i) Laser Printer, PC
- ii) PC, Windows 7 CD, Drivers CD
- iii) PC, PSTN internet connection (Broadband)
- iv) PC with Windows installed in it
- v) PC, DVD drive
- vi) Telephone Cable, RJ-11 connector, Punching/ Crimping tool.

**Other:-** All required tools

- 088. OLD AGE CARE**  
Any religion Book, Paper, Pen, File Cover
- 089. PARA LEGAL ASSISTANT / MUNSI \***
- 090. PRE / PREPARATORY SCHOOL MANAGEMENT**  
i) Drawing sheet : 1 No.  
ii) Chart paper of different colour  
iii) Colour paper  
iv) Fevicol  
v) Scissors  
vi) Record keeping format  
vii) Pen/Markers/Pencil
- 091. SPA THERAPY**  
i) Yoga Mat  
ii) Pedicure Bowl  
iii) Pedicure Set  
iv) Dettol  
v) Hydrogen Peroxide (H<sub>2</sub>O<sub>2</sub>)  
vi) Shampoo  
vii) Rose Water  
viii) Dummy for facial  
ix) Massage oil
- 092. TOURIST GUIDE\***
- 093/251. BAKER & CONFECTIONER**  
i) Bread : 1 Packet  
ii) Suit : As required  
iii) Atta : As required  
iv) Chocolate powder : 1 Packet
- 094. CANE WILLOW AND BAMBOO WORKER**  
i) Bamboo, Cane and willow  
ii) Fabric, Lubricant, oil
- 095. CATERING & HOSPITALITY ASSISTANT**  
i) No. of sheets : As required  
ii) Pillow covers : As required  
iii) Bedroom linen : As required  
iv) Vegetables : As required  
v) Chopping Board & Knife : As required  
vi) Stationary : As required
- 096/242. COMPUTER OPERATOR & PROGRAMMING ASSISTANT**  
Necessary software to be installed in the provided PC
- 096/242. COMPUTER OPERATOR & PROGRAMMING ASSISTANT (NSQF)**  
PCs with related software and accessories like DVD, Printer, Cables etc. along with internet connection. Availability of necessary operating systems, drivers and necessary software, Cables connectors.

**097/253. CRAFTSMAN FOOD PRODUCTION (GENERAL) / FOOD PRODUCTION (GENERAL)**

- i) Equipments (solar cooker, microwave, Gas stove, mixer grinder, etc.)
- ii) Utensils for cooking and serving
- iii) Basmati Rice
- iv) Milk and milk products
- v) Fish
- vi) Chicken
- vii) Vegetables
- viii) Spices
- ix) Oil and Ghee
- x) Gram flour
- xi) Corn flour
- xii) Makkai Atta

**098. CRAFTSMAN FOOD PRODUCTION (VEGETARIAN)**

- i) Lettuce ¼ bunch, Carrot/ 250 gms, Green Peas/ 500 gms, Potatoes/ 1Kg, Tomatoes/ 300 gms., Onions/ 200 gms, Beetroot/ 200 gms, French beans/ 100 gms, Garlic/ a small bulb, Lemon/ 2 nos.
- ii) Ingredients are vegetarian breakfast dish and soup, seasoning, flavouring, fats/ oil/ butter in optimum quantities may please be provided as per recipe.
- iii) Cleaning material, equipment and detergents for cleaning the kitchen/ work place may be provided

**099/247. CUTTING & SEWING / SEWING TECHNOLOGY****103/248. DRESS MAKING**

- i) Brown craft paper : 2 sheets
- ii) Sewing kit : 1 No.
- iii) Medium weight cotton fabric : 2 meters
- iv) Fancy buttons : 3 Nos.
- v) Laces & trimmings : 2 meters
- vi) Sewing Machine : 1 No.
- vii) Marking Chalk : 1 No.
- viii) Matching Thread : 1 No.
- ix) Fusing : 0.25 meters
- x) Elastics : 1 meters

**100. DAIRYING**

- i) Cow & new born calf
- ii) Clean sterilized scissors to cut naval cord
- iii) Thread for tying the chord
- iv) Tincture of iodine solution (7% or higher)
- v) Dry cloth to clean the calf
- vi) Standard material is a calf farm
- vii) A cow for description
- viii) Examiner may keep five items of available relevant material for identification



**101/243. DESKTOP PUBLISHING OPERATOR**

- i) MS- Office
- ii) Scanner
- iii) Printer

**102. DIGITAL PHOTOGRAPHER**

- i) Digital SLR camera, Tripod, Wide Angle Lens, Zoom Lens and PC to Store Photography
- ii) Computer with photo editing software
- iii) Computer with internet connection, Scanner to scan and photo printer

**104/249. EMBROIDERY & NEEDLE WORK / SURFACE ORNAMENTATION TECHNIQUES**

- i) Poster colors (Camlin) : Box of 12 assorted colors
  - ii) Color palette (medium) : 1 no.
  - iii) Round brushes : 0,2, 4 nos. each brush
  - iv) Drawing board (Half imperial) : 01 No.
  - v) Drawing tools ( HB pencil, eraser, sharpener plastic ruler – 12", etc.) : 01 Kit
  - vi) Plain cotton fabric (18" x 14") : 01 pc of light shade/ ivory/ white
  - vii) Embroidery threads : 04 nos. (Assorted colors of Anchor)
  - viii) Embroidery kit : 01 kit
- (Emb. Needle, round frame, scissors, tracing paper, blue color/ chalk power and kerosene oil etc.)

**105/246. FASHION TECHNOLOGY / FASHION DESIGN & TECHNOLOGY**

- i) Plain cotton fabric : 100 cm of light shade/ ivory/ white
  - ii) Sewing kit : 01 kit/ student
- (Cotton thread, machine and hand needle, bobbin, bobbin case, fabric cutting scissors, tailor chalk etc.)

Note: Sewing machines should be made available to students in working condition

**106. FINANCE EXECUTIVE\*****107. FIRE TECHNOLOGY & INDUSTRIAL SAFETY MANAGEMENT**

- i) Nozzles : As required
- ii) Bandages : As required
- iii) Ladder : 1 No.
- iv) Safety belt, Helmets : 1 No.
- v) Collecting Breeching : As required
- vi) Dividing Breeching : As required

**108. FLORICULTURE & LANDSCAPING**

Asparagus, Ferns, Grevillea, Callistemon, Tube Rose, Narcissus, Gladioli, Lemon Grass, prunus, Russelia, Aglonima, Diffenbachea, Meals, Zinia, Cockscomb, Gomphrena, Portulaca, Balsam, Celosia, Sunflower, Cosmos, Amaranthus, Malathion, Ciathion, Parathion, Nuan, Endosulfan, Chlorpyrophos, Furadon, Bavistin, Captan, Thiram, Twigs, Polythene sheets, Rope, Earthen Pot, Pot Mixture, Calendula, Dahlia, Aster, Phlox, Alyssum, Matricaria, Sweet pea, Nasturtium, Holly hock, Poppy, Secateurs, Edge Cutter, Budding Knife Spade Lawn Mower, Hand Hoe, Garden Rake, Hedge sheer, Scissor, Pruning Saw, Lawn Mower, Forceps,, Budding Knives, Tree Pruner, Foot Sprayer, Sieve, Hand Sprayer, Fork, Sunhemp, Dhaincha, Cowpea. : As required

Contd..18/-

**109. FOOT WEAR MAKER**

i) Pattern sheet	: As required
ii) Designing kit	: 1 No.
iii) Upper Material	: As required
iv) Lining Material	: As required
v) Cutting knife	: 1 No.
vi) Sharpening stone	: 1 No.
vii) Scissor	: 1 No.
viii) Adhesive	: As required
ix) Cutting Blade	: 1 No.
x) Punch	: 1 No.
xi) Hammer	: 1 No.
xii) Machines Tools	: As required
xiii) Thread	: As required
xiv) Latex	: As required
xv) Brush	: 1 No.
xvi) Adhesive Pot	: 1 No.
xvii) Last	: As required
xviii) Masking Tape	: As required

**110/239. HAIR & SKIN CARE / BASIC COSMETOLOGY**

i) Bowl (Glass or plastic)	: 1 No.
ii) Cotton	: As required
iii) Wool	: As required
iv) Sponge	: As required
v) Towels	: As required
vi) Applicator brush	: 1 No.
vii) Cream bleach	: As required
viii) Activator	: 1 No.
ix) Cleansing milk	: As required
x) Table/ stool	: 1 No.
xi) Antiseptic cleanser	
xii) Washable drapes for client	: As required
xiii) Applicator or spatula	: As required
xiv) Dusting brush powder	: As required
xv) Wax heater	: 1 No.
xvi) Waxing strips (disposable)	: As required
xvii) Thread	: As required
xviii) Powder	: As required
xix) Tweezers	: As required
xx) Astringent lotion	: As required
xxi) Eye brow brush	: 1 No.
xxii) Cleansing tissue and scissor	: As required
xxiii) Acetone	: As required
xxiv) Manicure shampoo	: As required
xxv) Luke Warm Water	: As required

xxvi) Antiseptic lotion	: As required
xxvii) Cream	: As required
xxviii) Manicure set	: 1 No.
xxix) Base and top coat	: 1 No.
xxx) Nail polish (different color)	: As required
xxxi) Small brushes	: As required
xxxii) Pumic stone	: As required
xxxiii) Nail brush	: As required
xxxiv) Oil	: As required
xxxv) Small steamer/ Infrared lamp	: 1 No.
xxxvi) Neck cape	: 1 No.
xxxvii) Section clips	: As required
xxxviii) Tail comb	: 1 No.
xxxix) Heater	: 1 No.
xl) Yoga mate	: 1 No.
xli) Track suit	: 1 No.
<b>111. HEALTH SAFETY &amp; ENVIRONMENT</b>	
i) Flame detector	: 1 No.
ii) Chemical Foam Extinguisher	: 1 No.
<b>112. HEALTH SANITARY INSPECTOR</b>	
i) Standard tools & equipments required	
<b>113. HORTICULTURE</b>	
i) Manures (FYM, Compost, vermi compost, urea, SSP, DAP, MBP, Azuela, Rhizobium etc)	: As required
<b>114. HOSPITAL HOUSE KEEPING</b>	
i) Equipments used in water purifying	: As required
ii) Different types of fire extinguishers	: As required
iii) Tools and chemicals required	: As required
<b>115. HUMAN RESOURCES EXECUTIVE9*</b>	
<b>116. LEATHER GOODS MAKER</b>	
i) Pattern Sheet	
ii) Designing Kit	
iii) 10 pieces cut component of leather	
iv) 10 pieces cut component of other material	
v) Buttons- 8	
vi) Riverts – 8	
vii) Hammer	
viii) Spreader	
ix) Rampi	
x) Adhesive	
xi) Material for handbag	
xii) Tool kit	
xiii) Sketch paper	

**117. LITHO-OFFSET MACHINE MINDER**

- i) Cleaning materials like cotton cloth, lubricating oil, grease gum, oil can cotton waste
- ii) All the chemicals and colloid for coating and developing of plate
- iii) Plate whirler machine for coating, pre-grained plate for coating
- iv) Plate exposing machine for exposing the plate
- v) A lining up table for assembling the films and page make up of films for exposing
- vi) Press proof machine, ink and other consumable for taking print
- vii) Tools and equipments, plate quality control strips of plate making department

**118. MARKETING EXECUTIVE**

- i) Newspaper
- ii) Stationary items
- iii) Computer system
- iv) MS Office software
- v) Broad band connectivity
- vi) Table and chairs

**119/244. MULTIMEDIA, ANIMATION & SPECIAL EFFECTS**

- i) Adobe illustrator
- ii) Photoshop
- iii) MS-Office

**120. OFFICE ASSISTANT CUM COMPUTER OPERATOR**

- i) MS- Office
- ii) MS- DOS

**121. PHOTOGRAPHER**

- i) Digital SLR Camera, Tripod, Studio Lights, Electronic Umbrella Lights, Spot Lights.
- ii) 35 mm SLR camera, Hood, Tripod, Zoom lens, Flash Gun
- iii) Digital SLR Camera, Hood, Tripod, Wide Angle Lens, UV Filters.

**122. PLATE MAKER-CUM IMPOSITOR**

- i) Desktop computer system loaded with various publication, colour correction and design softwares
- ii) A lining up table for assembling the films and page make up of films for exposing
- iii) Printer and paper for taking out prints
- iv) All the chemicals and colloid for coating and developing of different kinds of plate.

**123/245. PRESERVATION OF FRUITS AND VEGETABLES / FRUITS AND VEGETABLE PROCESSING \*****124. PROCESS CAMERAMAN**

- i) Digital SLR Camera, Tripod
- ii) Still camera, PC with Editing Software
- iii) Memory card reader, PC with internet connection.

**125/258. SECRETARIAL PRACTICE (ENGLISH)\*****126/259. STENOGRAPHER & SECRETARIAL ASSISTANT (ENGLISH) \***

- 127/260. **STENOGRAPHY & SECRETARIAL ASSISTANT (HINDI)\***
- 128/252. **STEWARD / FOOD & BEVERAGES GUEST SERVICE ASSISTANT\***
- 129/262. **TRAVEL & TOUR ASSISTANT / TRAVEL AND TRAVEL ASSISTANT \***
- 130/263. **WEAVING OF SILK & WOOLEN FABRICS**  
 i) Pit loom machine  
 ii) Sectional warping machine  
 iii) Warp Yarns  
 iv) Weft yarns
131. **WEAVING OF WOOLEN FABRICS**  
 i) Sufficient yarn pieces of 10 Ne or coarser  
 ii) Minimum 03 reeds of different counts  
 iii) Sufficient empty bobbins, weft wam and winding wheel with stand cycle rim  
 iv) 15-20 Different parts of a power loom for identification  
 v) Well equipped lab as mentioned with syllabus
240. **SPA THERAPY**  
 i) Yoga Mat  
 ii) Body Wrap  
 iii) Massage Oil
250. **COMPUTER AIDED EMBROIDERY AND DESIGNING**  
 i) Glazed cotton/ silk / satin fabric : ½ metre  
 ii) Tracing paper : 2 sheets  
 iii) Embroidery threads : 06 (in different colours)  
 iv) Embroidery Kit : 01 No.
254. **FRONT OFFICE ASSISTANT**  
 i) Stationary for Front Office  
 ii) Computer system with MS office Software
255. **HOUSE KEEPER\***
256. **OLD AGE CARE ASSISTANT\***  
 Computer with software MS Word, Excel and Power Point, Required Stationary, Internet Connection
257. **PRE / PREPARATORY SCHOOL MANAGEMENT ASSISTANT\***
261. **ASSISTANT TOURIST GUIDE\***

- 264. COMPUTER HARDWARE & NETWORK MAINTENANCE**  
 i) IC of decoder  
 ii) DIODE  
 iii) Resistors  
 iv) Capacitors  
 v) Emergency Lamp  
 vi) Personal Computer
- 277. INFORMATION TECHNOLOGY**  
 i) PC  
 ii) Required software Window 7 with all drivers.
- 278. MILK AND MILK PRODUCTS \***
- 279. FOOD& BEVERAGES SERVICE ASSISTANT**  
 i) Pineapple, Sugar, Pineapple essence, Yellow colour, Bottles, Labeling material etc.  
 ii) Faulty machine for repair, milk, coffee, kesar, choco, ilaichi, sugar, bottles etc.  
 iii) Pineapple squash serving glasses, table chair etc.
- 281. DATA BASE SYSTEM ASSISTANT\***
- 282. SOFTWARE TESTING ASSISTANT\***
- 283. BAMBOO WORKS**  
 i) Bamboo and dyeing material : As required
- 901. ARCHITECTURAL DRAUGHTSMANSHIP\***
- 133. DENTAL LABORATORY EQUIPMENT TECHNICIAN**  
 i) Weighing scale  
 ii) Acrylic powder  
 iii) Dappen dish  
 iv) Copper wire  
 v) Voltmeter  
 vi) Electric Furnace  
 vii) Compressor  
 viii) Casting Machine  
 ix) Electroplating apparting
- 134. ARCHITECTURAL DRAUGHTSMANSHIP\***

**Note: \*All Tools, Instruments & Equipment as per standard list prescribed in the Syllabus of the trade, must be kept ready and in good condition.**

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