

**BILL OF MATERIAL REQUIRED FOR EACH TRAINEE FOR THE FOLLOWING
TRADES FOR THE ALL INDIA TRADE TEST OF CRAFTSMAN (SEMESTER
PATTERN) UNDER CRAFTSMAN TRAINING SCHEME TO BE HELD IN THE MONTH
OF JANUARY – 2018
SEMESTER – II (ENGG. & NON ENGG.)**

- 6/210. **ARCHITECTURAL ASSISTANT**
 i) Pencils, Eraser, Cutter, Setsquare, Rulers
 ii) A1 size Cartridge sheets : 85 Nos.
 iii) A1 size tracing sheets for rough sketching : 40 Nos.
 iv) Thread of 5m for tying sheet
 v) Stapler : 1 No.
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- 7/206. **CARPENTER**
 i) Teak wood 40mm x 170mm x 70mm : 2 Nos.
 ii) Set of complete tools (Steel rule, Try square, Marking gauge, Rip saw, Mortise
 chisel, Mallet, Jack plane, Wood rasp file etc.)
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- 9/214. **FOUNDRYMAN/FOUNDRYMAN TECHNICIAN**
 i) Any match plate pattern
 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)
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11. **INDUSTRIAL PAINTER**
 i) Powder
 ii) Gloss test kit
 iii) Adhesion test kit
 iv) Arrangement for fluidized coating
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- 12/208. **INTERIOR DECORATION & DESIGNING ***
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13. **MARINE ENGINE FITTER**
 i) Diesel/Petrol engine in working condition.
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- 14/211. **MASON (BUILDING CONSTRUCTOR)**
 i) Aggregate : 100 kg approx
 ii) Cement : 50 Kg/one beg
 iii) Water : As per requirement
 iv) Floor tiles (1.75m²)
 v) Compaction and finishing tools
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15. **MECHANIC REPAIR & MAINTENANCE OF HEAVY VEHICLES**
 i) One HMV diesel engine vehicle in working condition
 ii) Raw material used in servicing radiator and alternator of a HMV workshop
 iii) Common tools and equipments used in HMV repair shop

Contd...2/-

16. **MECHANIC REPAIR & MAINTENANCE OF LIGHT VEHICLES**
 i) One diesel engine vehicle in working condition
 ii) Raw material used in servicing of a diesel engine vehicle in LMV workshop
 iii) All the common tools and equipments used in a LMV repair workshop
17. **MECHANIC (DIESEL)**
 i) A turbocharger
 ii) Diesel engine in working condition
- 18/202. **MECHANIC (TRACTOR)**
 i) A tractor in working condition
 ii) Raw material used in overhauling of differential & steering gear assembly of tractors
19. **MECHANIC COMMUNICATION EQUIPMENT MAINTENANCE**
 i) System with windows 95/98, modem with driver CD, one free a pin com2 on PC, Telephone port connection, Trainees tool kit.
 ii) Windows 95/98 PC configured with NIC-2nos., Hub 10/100 Mbps/8 port UTP hu-1No., UTP cables crimped with UTP jacks – 2 nos., printer with driver CD for windows along with interface cable.
 iii) FAX terminal with symptom, of printing fault. Trainee kit, spare components
20. **MECHANIC LENS/PRISM GRINDING**
 i) Lens : 2 Nos.
 ii) Spectacle frame : 1 No.
21. **PHYSIOTHERAPY TECHNICIAN***
22. **PLASTIC PROCESSING OPERATOR**
 i) Vernier caliper digital (0-200) : 1 No.
 ii) Hand operated injection moulding machine
 iii) Pipe die
 iv) Vacuum forming machine with mould
 v) Extrusion machine
- 23/209. **PLUMBER**
 i) Flat back urinal with auto-flushing tank and all connections
 ii) G.I pipe ϕ 20mm x 2.5mm thick x 958mm long : 1 No.
 iii) Pipe bender, former, other tools and accessories : As required
 iv) All equipment, accessories, tools and instruments as provided in the syllabus to be kept ready.
- 24/205. **PUMP OPERATOR CUM MECHANIC**
 i) Submersible pump in running condition
 ii) Lubrication system of a pump with various seals
 iii) Valve of a pump
 iv) All tool and equipment used in pump operator shop

Contd...3/-

26/213.	SHEET METAL WORKER i) MS flat 100mm x 60mm x 10mm ii) MS flat 100mm x 80mm x 10mm iii) MS flat 100mm x 30mm x 10mm	: 1 No. : 1 No. : 1 No.
29/212.	WELDER i) M.S plate 100mm x 100mm x 10mm ii) MS plate 100mm x 50mm x 10mm iii) Aluminum sheet 100mm x 50mm x 2mm iv) Raw material required in GMAW for welding M.S flats and GTAW for welding aluminum sheets.	: 1 No. : 1 No. : 2 Nos. : 2 Nos.
29/212.	WELDER (NSQF) i) Aluminium sheet 150mm x 50mm x 3 mm ii) OAW plant iii) Necessary filler rod and accessories iv) M.S plate 150mm x 50mm x 3mm	: 2 Nos. : 2 Nos.
203.	MECHANIC AUTO ELECTRICAL & ELECTRONICS i) Petrol car ii) Hand tools kit iii) Fender cover iv) Gloves v) Cleaning cloths	
204.	MECHANIC MOTOR CYCLE i) Lead acid battery in working condition ii) SI engine in working condition iii) Raw material for servicing lead acid battery iv) Raw material used for overhauling cylinder used of S.I engine	
207.	SURVEYOR i) Theodolite and stand ii) Leveling staff iii) Measuring tape	
241.	ARCHITECTURE DRAUGHTSMAN i) A1 size cartridge sheets ii) A1 size tracing sheets for rough sketching iii) Thread of 5m for tying sheet iv) Stapler v) A1 size drafting table and stools for trainees vi) Chair and table for examiner	: 85 Nos. : 40 Nos. : 1 No. : 20 Nos. : As per requirement
264.	COMPUTER HARDWARE & NETWORK MAINTENANCE i) Bluetooth for PC ii) Dongle iii) LINUX iv) Broad band connection v) IP Camera	: 1 No. : 1 No. : As required : As required : 1 No.

Contd...4/-

266.	MECHANIC AUTO BODY REPAIR	
	i) Socket spanner set	: 1 No.
	ii) Outside micrometer	: 1 No.
	iii) Cylinder bore gauge	: 1 No.
	iv) Torque wrench	: 1 No.
	v) Multicylinder diesel engine	: 1 No.
	vi) Air compressor	: 1 No.
	vii) Kerosene	: As required
	viii) Soap oil	: As required
	ix) Lubricant oil	: As required
	x) Cleaning cloth	: As required
	xi) Emery paper	: As required
	xii) Grease	: As required
267.	MECHANIC AUTOBODY PAINTING	
	i) Tools/Instruments	
	ii) Trainee tool kit	
	iii) Outside micrometer	
	iv) Cylinder bore gauge	
	v) Torque wrench	
	vi) Petrol engine	
268.	WELDER (GMAW & GTAW)	
	i) MS Flat 150mm x 50mm x 8mm	: 2 Nos.
	ii) Stainless steel flat : 150mm x 50mm x 3mm	: 2 Nos.
269.	WELDER (PIPE)	
	i) MS pipe Ø 45mm x 450mm	: 1 No.
	ii) MS plate 80mm x 80mm x 5mm	: 2 Nos.
	iii) Welding electrode	: As required
270.	WELDER STRUCTURAL	
	i) MS Flat 140mm x 140mm x 10mm	: 2 Nos.
	ii) MS Flat 140mm x 70mm x 10mm	: 2 Nos.
	iii) MS Pipe 120mm x Ø30mm x 3mm thickness	: 1 Nos.
271.	WELDER (WELDING & INSPECTION)	
	i) MS Flat 100mm x 40mm x 10mm	: 1 No.
	ii) MS Flat 100mm x 60mm x 10mm	: 1 No.
	iii) MS Flat 100mm x 50mm x 10mm	: 1 No.
	iv) MS Pipe Ø 50mm x 100mm	: 2 Nos.
272.	WELDER (FABRICATION & FITTING)	
	i) MS Flat: 150mm x 75mm x 10mm	: 3 Nos.
	ii) Bars (different diameters), I-section, & box section	

Contd...5/-

30.	ATTENDANT OPERATOR (CHEMICAL PLANT)	
	i) Bourdon tube	
	ii) Ball valve	
	iii) Gear box	
	iv) Aperture to determine Thermal conductivity of metal rod.	
31/217.	DRAUGHTSMAN (CIVIL)	
	i) Drawing sheet (imperial size)	: 2 Nos.
	ii) White paper	: 2 Nos.
	iii) Drawing material	
31/217.	DRAUGHTSMAN (CIVIL) (NSQF)	
	i) Drawing sheet (Imperial size)	: 1 No.
	ii) White paper	: 2 Nos.
	iii) Drawing instruments and consumable	: As required
	iv) Theodolite along with necessary accessories	: As required
	v) Chain survey equipment	: As required
	vi) Field book	: As required
	vii) Ranging rods	: As required
32/224.	DRAUGHTSMAN (MECHANICAL)*	
33/231.	ELECTRICIAN	
	i) 3 point D.C starter 2.5kw	: 1 No.
	ii) Transistor CL 100	: 1 No.
	iii) Resistors as per circuit diagram	: Assorted values
	iv) Lamp or relay of 12V DC	: 1 No.
	v) DC power supply 12V or variable	: 1 No.
	vi) Tools, soldering Iron etc.	: Assorted
	vii) Transistor BC 547, Resistors, Capacitors etc.	: 1 set
	viii) Trainer kit or discrete components as per circuit diagram	: 1 No.
	ix) Trainer kit or discrete components as per circuit diagram	: 1 set
	x) MCB and ELCB	: 1 set
	xi) Multimeter & tools	: Assorted
	xii) Resistance of fixed values (10 diff. values)	: 10 Nos.
	xiii) Load, AC & DC voltage source	: 1 set
	xiv) Digital multimeter	: 1 No.
33/231.	ELECTRICIAN (NSQF)	
	i) PVC conduit, clips, wires, cutter, joint etc.	: As required
	ii) Two way switch	: 1 No.
	iii) Lamp with lamp holder	: 1 No.
	iv) Tester	: 1 No.
	v) Earthing pipe	: 1 No.
	vi) Megger	: 1 No.

Contd...6/-

vii) Salt-charcoal for filling	: As required
viii) Digging tool cutter	: 1 No.
ix) Earthing plate	: 1 No.
x) Power factor meter	: 1 No.
xi) AC supply: Single phase	: As required
xii) Resistive inductive load	: As required
xiii) MI type voltmeter (0-250V)	: 1 No.
xiv) MI type ammeter (0-5A)	: 1 No.
xv) Dynamometer type wattmeter	: 1 No.
xvi) Wire cutter and stripper	: 1 No.
xvii) Soldering iron, flux and soldering wire	: As required
xviii) Variac (0-270V)	: 1 No.
xix) Electric kettle (With spare parts for replacement)	: 1 No.
xx) Multimeter	: 1 No.
xxi) Three phase supply	: As required
xxii) Connected wires	: As required

34/219.

ELECTRONIC MECHANIC

- i) General purpose IC resistors as required; LED 7400, IC base 14 pin; soldering flux; connecting wires; regulating DC power supply unit 5V/500mA; DC voltmeter (MC) 0-10V multimeter, Bread Board, resistance 150Ω/i/n/W – 1 No., Toggle switch : 2 Nos.
- ii) Semiconductor diode IN4001 or IN4007, multimeter, Voltmeter, milliammeter, potentiometer 5W, SPT switch 6A 240W, Bread board, patch cords with clips required resistors and suitable connecting wires.
- iii) Breadboard and connecting wires; OpAmp LM741- 3 Nos. Multimeter; Dual power supply (0-30) V; Resistor (740Ω, 1 kΩ); LED – 3Nos.; (RPS (0-5V)
- iv) Oscilloscope 20MHz, Dual trace, sine wave/signal generator, Regulated DC power supply 12V, 1000mA, DC micro ammeter 0-500μA, DC milliammeter 0-30 mA, capacitor 100μF/25V, Electrolytic axial, capacitor 25μF/25V, electrolytic axial resistors 120Ω, 470Ω, 1kΩ, 1.2Ω, 5.6kΩ, hook up wire.

34/219.

ELECTRONICS MECHANIC (NSQF)

- i) Relay Resistor, Capacitor, Transistor : As required
- ii) OPAMP IC, Diode, DC supply function generator : As required
- iii) Experimental kit of colpitts oscillator-1 No., Hartley oscillator-1 No.,
- iv) Digital trainer Experimental kit comprises of logic gates-1 No., LEDs – AS required
- v) CRO with probes : 1 No.
- vi) Jumper wires : As required
- vii) Connecting wires : As required
- viii) Multimeter : 1 No.
- ix) IC tester : 1 No.
- x) Variable DC supply : As required
- xi) Function generator : 1 No.

Contd...7/-

- 35/233. **ELECTROPLATER**
- i) Screw driver, combination plier, spanner, M.C. voltmeter range 0-15V, M.C. Ammeter 0 to 5A, shunt type Ohmmeter 0 to 50 ohms, DC shunt/compound machine 250V of any rating, Battery 6V 60AH, Rheostat 50 ohms 4.1 amperes, PVC insulated copper cable.
 - ii) Tool kit, Steel welded tanks, polishing wheels and buffs of different sizes, HCl, H₂SO₄, HF solvent, alkali cleaners, emulsifiers, ferrous and non-ferrous materials as required, distilled water.
 - iii) Multimeter, rectifier set 16-20 volts DC with an output of 500 ampere., silica cased immersion electric heater 1kW, 10/12" length, copper plating tank, capacity 12ltr., PP tank for degreasing, swilling, acid dipping, drag in drag out, hot water dipping, copper anodes, anode hooks, bus bars, emery paper, brass
- 36/227. **FITTER**
- i) Mild steel flat: 110mm x 65mm x 12mm : 1 No.
- 36/227. **FITTER (NSQF)**
- i) Mild steel Flat: 80mm x 80mm x 20mm : 1 No.
 - ii) Mild steel rod Ø45mm x 130mm : 1 No.
37. **INSTRUMENT MECHANIC**
- i) Trainer kit or discrete components for diodes characteristics : 1 Set
 - ii) Center tap type step down transformer e.g. 12-012V @ 500mA : 2 Nos.
 - iii) IN 4007 diodes
 - iv) Capacitor 470 mfd./40V
 - v) Trainer kit
 - vi) IC 741 : 1 No.
 - vii) 8 pin IC base : 1 No.
 - viii) Carbon film resistors : Assorted
 - ix) General purpose PCB : 1 No.
 - x) Tools wires, Soldering iron etc. : Assorted
 - xi) IC trainer kit : 1 No.
 - xii) Signal generator or step down transformer : 1 No.
 - xiii) CRO
38. **INSTRUMENT MECHANIC (CHEMICAL PLANT)**
- i) Trainees kit ; Oscilloscope, 20MHz, dual trace ; Voltmeter ; Multimeter ; Soldering iron 25W, 240V ; Lugboard general purpose 5 points ; Diode 1N4007 ; Resistor 470 W ; Step down transformer 240V, 24V 500mA ; Multi strand wire, red, blue, 23/0.2 of 250V grade ; Base board ; Main cord 3 core cable – 23/0.2 of 250V grade ; Nuts, bolts and washers ; 3 pin plug 5A 250V ; Resin core solder 60/40
 - ii) An Orificemeter fitted across a pipeline leading to a collecting tank, stop Watch, U-Tube manometer etc.
 - iii) A computer with MS Power point application.
 - iv) Flask, funnel, dropping funnel, burner, nitric acid, sulphuric acid, benzene, sodium hydroxide

Contd...8/-

39/220.

ITESM/ICTSM

- i) Computer system (PC), Windows XP CD
- ii) Computer system having faulty hard disk, new hard disk
- iii) Computer system
- iv) Computer system having faulty SMPS, new SMPS
- v) Computer system having MS excel installed in it.
- vi) Computer system, new extra RAM & hard disk

40.

LABORATORY ASSISTANT (CHEMICAL PLANT)

- i) Vacuum flask. Water heater jug Digital resistance /mV indicator, Direct reading digital temperature indicator for use with thermocouple, Vapor pressure thermometer, Wet and dry bulb thermometer, Platinum resistance thermometer, Thermocouples Type K & lead wires, Mercury in glass thermometers:-5 to 105 Degree C, Mercury in glass thermometers:- -5 to 360 Degree C, Bimetallic temperature indicator : 0-400 Degree C.
- ii) Hydrochloric acid, 0.05M BaCl₂, 0.1M HNO₃, AgNO₃, 400 ml beaker, 100 ml and 200ml measuring cylinder, stirring rod, heating plate, desicator, analytical balance, vacuum pump compressor
- iii) Deadweight tester, Bourdon pressure gauge, four 1 kg weights, two 0.5 kg weights, one 0.2 kg weight

41/234.

LIFT MECHANIC/LIFT & ESCALATOR MECHANIC

- i) Carbon resistors : 1k, 2.1k, 3k all of ¼ watt
- ii) Different types of capacitor & testing by voltage
- iii) Carbon resistors (as above), inductor & capacitor & lamp variac, AC millimeter, AC voltmeter.
- iv) Diodes -4 Nos. Transformer 230V/24V, 500mA, DC voltmeter/multimeter (12-0-12) step down

42/222.

MACHINIST

- i) MS rod: ϕ 40mm x 200mm : 1 No.
- ii) Coolant

43/223.

MACHINIST GRINDER

- i) MS rod: ϕ 60mm x 60mm : 1 No.

44.

MAINTENANCE MECHANIC (CHEMICAL PLANT)

- i) Welding transformer : 1 No.
- ii) Connecting cables : As required
- iii) Electrode holder : 1 No.
- iv) Ground clamp : 1 No.
- v) Electrodes : As required
- vi) Hipping hammer : 1 No.
- vii) Welding shield : 1 No.
- viii) MS Flat pieces 50mm x 125mm x 8mm : 2 pieces
- ix) Sunk key, chisels, measuring equipments, shaft : As required
- x) Bonding adhesive, Glass wool etc. : As required
- xi) Venturi meter -1No., u-tube manometer-1No., Differential pressure gauge : As required

Contd...9/-

45. **MARINE FITTER**
i) MS Flat of size 100mm x 60mm x 5mm : 1 No.
ii) MS Round size \varnothing 40mm x 70mm : 1 No.
- 47/216. **MECHANIC AGRICULTURE MACHINERY**
i) Tractor in working condition
ii) A complete set of tools
iii) Raw materials/consumables such as packing, cotton waste, diesel, hack saw blades, grease, air filter, engine oil, gear oil, air filter element, tie rod ends, shims etc. : As per required
48. **MECHANIC COMPUTER HARDWARE**
Diode, All type of bridges, Multimeter assembler, Processor, Optical fibre cable visual fault locator
- 49/273. **MECHANIC CONSUMER ELECTRONIC APPLIANCES**
i) Connecting wire
ii) Ammeter
iii) Voltmeter
iv) Diodes
v) Transistorized amplifier kit
vi) Bread board
vii) RC phase shift oscillator
viii) Photo diode
ix) Lamp
50. **MECHANIC-CUM-OPERATOR ELECTRONIC COMMUNICATION SYSTEM**
i) Transistor
ii) DC voltage supply
iii) Breadboard
iv) 100 Ω resistor
v) Multimeter
vi) Variable regulated low voltage DC source
vii) AFO
viii) CRO
ix) DMM
x) BC 107 (or equivalent)
xi) Breadboard and wires
xii) 741 IC operational amplifier
xiii) Several 1/4 –watt resistors
xiv) Decade capacitor box (0-10 μ F)
xv) 9v battery
xvi) SMPS circuit
xvii) Probe and connecting wires

Contd...10/-

51. **MECHANIC INDUSTRIAL ELECTRONICS**
 i) OP-amp 0741
 ii) Resistor
 iii) Voltage supply
 iv) Power source 0-12 V dc, 500mA
 v) Electronic voltmeter
 vi) Oscilloscope
 vii) Bread board
 viii) CI 10 μ F, electrolytic
 ix) SCR
 x) Silicon diode, IN4004
 xi) Miniature lamps
 xii) UJT
 xiii) R₁=270 Ω , 1W, R₂=4.7K Ω , 1W, R₃=500K Ω
 R₄=100 Ω , 1W, R₅= 470 Ω , 1W
 xiv) ½ W potentiometer
 xv) SI SPST, S2 PBNC (Switches)
 xvi) Basic power electronic trainer model
 xvii) D.C. Power supply
 xviii) Multimeter
 xix) Trainer kit
 xx) 8255 kit
- 52/225. **MECHANIC MACHINE TOOL MAINTENANCE**
 i) MS cylindrical rod of 50mm diameter 100 mm length : 1 No.
53. **MECHANIC MECHATRONICS**
 i) Gear box
 ii) Other materials : As pr requirement
54. **MECHANIC MEDICAL ELECTRONICS**
 i) Bread board, CRO, function generator, 555 IC : 1 No.
 ii) Thyristor, Optical Fiber, Relay : As required
 iii) Stabilizer : 1 No.
 iv) 8085 microprocessor trainer kit, 8255 module : 1 No.
 v) Splicing machine, Op-amp (741) : 1 No.
- 55/215. **MECHANIC MOTOR VEHICLE**
 i) Turbo charger : 1 No.
 ii) Bushes : As required
 iii) Emery paper : 2 pieces
 iv) Old dhoti : As required
 v) Cleaning brush : 1 No.
 vii) Alternator assembly : 1 No.
 viii) Multimeter : 1 No.
 ix) Petrol : As required
 x) Caron brushes : One set

- 56/218. **REFRIGERATION AND AIR CONDITIONING**
 i) Window A.C 1 ton with R-22 having faulty capillary tube : 1 No.
 ii) Tools & Equipment
57. **MECHANIC RADIO AND TELEVISION**
 i) CRO : 1 No.
 ii) Connecting wire : As required
 iv) Transistors : As required
 v) Bread board : 1 No.
 vi) Multimeter : 1 No.
 vii) Hartley oscillator kit : 1 No.
 viii) Resister : As required
 ix) Diode : As required
 x) Power supply : 1 No.
- 58/226. **OPERATOR ADVANCE MACHINE TOOL**
 i) Machine tool – Shaper
 ii) Cutting tool – V-tool, Parting tool, Dovetail cutting tool
 iii) Measuring tools – steel rule, outside caliper, vernier caliper, micrometer
 iv) M.S. Plate 45mm x 45mm x 12mm : 1 No.
59. **PAINTER GENERAL**
 i) Thinner, Primer, Wooden Polish
 ii) Cast iron pipe, Steel pipe and Aluminium pipe of any size : 1 No. each
 iii) Wire brush, Plam sander and pads, Chip brush, Sanding block, acetone, tack cloth, safety gear, drop cloths, primer for metal, paint for metal
 iv) PC with latest configuration suitable for Adobe Photoshop software
60. **RADIOLOGY TECHNICIAN**
 i) Dark room equipments including processing tanks, cassettes, safelight, film racks and hangers and film holder.
 ii) Automatic processors including developer, fixer, washing, and dryer
 iii) Loading bench
 iv) Materials and chemicals required in lab
 v) Barium sulfate
- 61/235. **SPINNING TECHNICIAN**
 i) Well equipped laboratory as mentioned with syllabus
 ii) Examination stationery
62. **SURVEYOR**
 i) Plane table set : 1 No.
 ii) Plane table accessories : 1 Set
 iii) Ranging rods : 10 Nos.
 iv) Measuring tape : 1 No.
 v) Dumpy level with stand : 1 No.
 vi) Levelling staff : 1 No.

63/236. TEXTILE MECHATRONICS

- i) Induction motor
- ii) 23/76 SWG flexible wire
- iii) Ammeter (0-50) mA
- iv) Volt meter (0-300V)
- v) Electrolytic battery 12V
- vi) Flux
- vii) Desordering Pump
- viii) Few resistors of different ratings
- ix) Multimeter (digital)
- x) Single phase power factor meter
- xi) Speed frame in working condition
- xii) Electric lamp
- xiii) Switch board/Switch
- xiv) 3 Pin socket
- xv) 3/20 PVC wire : 10 meter

64/237. TEXTILE WET PROCESSING TECHNICIAN

- i) Ammonium chloride : 50 gm
- ii) Ammonium Hydroxide : 50 gm
- iii) Disodium salt of EDTA : 50 gm
- iv) Magnesium sulphate : 50 gm
- v) Erichrome black T : 50 gm
- vi) Beakers, Conical Flask, Burette, Pipette and Test Tubes
- vii) Bleaching powder : 100 gm
- viii) H₂O₂ : 100 gm
- ix) Caustic soda : 100 gm
- x) Different fibres with dissolving agents
- xi) Gas burners and tweezers
- xii) Cotton yarn : 100 gm

65/228. TOOL & DIE MAKER (DIES & MOULDS)

- i) Ms Flat: 50mm x 50mm x 15mm : 1 No.

66/229. TOOL & DIE MAKER (PRESS TOOLS, JIGS & FIXTURE)

- i) MS Flat: 55mm x 55mm x 15mm : 1 No.

67/221. TURNER

- i) MS round Ø 50mm x 150mm : 1 No.

67/221. TURNER NSQF

- i) M.S Rod Ø 38mm x 110mm : 1 No.

68. VESSEL NAVIGATOR *

- 69/238. **WEAVING TECHNICIAN**
 i) Cheese winding machine
 ii) Cone winding machine
 iii) Yarn : As required
 iv) Empty cones : 10 pieces
 v) Vernier caliper
 vi) Measuring tape
 vii) Sale
 viii) Well equipped lab as mentioned with syllabus
- 70/232. **WIREMAN**
 i) Wooden board : 4 Nos.
 ii) Lamp Holders : 4 Nos.
 iii) Lamps 40 W : 4 Nos.
 iv) PVC wire single core : As per required
 v) PVC conduit pipe : As per required
 vi) 3 – phase DOL starter : 1 No.
 vii) 3 – phase Motor : 1 No.
 viii) Cable & Tools
 ix) Single phase energy meter : 1 No.
 x) Electric load : Assorted
265. **TECHNICIAN POWER ELECTRONICS SYSTEMS**
 i) Transistors, resistors, capacitors & PCB etc. : As per required
 ii) Circuit diagram or trainer kit : 1 No.
 iii) CRO : 1 No.
 iv) Digital multi-meter : 1 No.
 v) Soldering iron, wires, cables & tools : Assorted
 vi) Transistors of different power ratings & Different packages
 with four defective ones : 12 Nos.
 vii) DIAC and TRIAC : 1 pair
 viii) Lamp with holder
 ix) Power supply
 x) Multimeter
 xi) Soldering iron, solder, wires and tools : Assorted
 xii) Power electronics trainer kit
 xiii) Op-amp trainer
 xiv) Digital IC trainer
275. **MECHANIC AIR CONDITIONING PLANT**
 i) Split air conditioner 1.5 Ton.
 ii) Refrigerant R134 a.
 iii) Other materials as per requirement
- 276/284. **CIVIL ENGINEER ASSISTANT**
 i) Defective electric iron
 ii) Wash basin : 1 No.
 iii) G.I pipe : 1 mtr.
 iv) PVC waste pipe : 1No.

Contd...14/-

277. **INFORMATION TECHNOLOGY***93/251. **BAKER & CONFECTIONER**

- i) Flour : As required
- ii) Salt : As required
- iii) Sugar : As required
- iv) Fat : As required
- v) Baking powder : As required
- vi) Baking tins and molds : As required
- vii) Milk : As required
- viii) Broken rice : As required
- ix) Small cardamom : As required
- x) Almonds, currants : As required
- xi) Eggs : As required
- xii) Complete bakery kit with the student : 1 No.
- xiii) Any other material required can be asked from the bakery : As required

94. **CANE, WILLOW & BAMBOO WORKER**

- i) Bamboo, Chemicals etc.
- ii) Fabric, Lubricant, oil

95. **CATERING & HOSPITALITY ASSISTANT**

- i) Dinning table : As required
- ii) Different cloths for laying table : As required
- iii) Tableware, Cutlery, Glassware & Crockery : As required
- iv) Different color dustbins : As required
- v) Waste of different kind & Material : As required
- vi) Stationary : As required
- vii) Different vegetables : As required
- viii) Bouquet garni : As required
- ix) Seasoning : As required
- x) Gas Range & Cooking utensils : As required

96/242. **COMPUTER OPERATOR AND PROGRAMMING ASSISTANT**

- i) Window
- ii) Computer system
- iii) Visual studio
- iv) Anti virus
- v) Tally
- vi) Javasript
- vii) We serer: Any HTTP web server/ SAMPP or any other similar serer

96/242. **COMPUTER OPERATOR AND PROGRAMMING ASSISTANT (NSQF)**

- i) PCs with practical related software and accessories like DVD, Printer, Cables etc. along with both WiFi and LAN internet connection : As required

97/253. **CRAFTSMAN FOOD PRODUCTION (GENERAL)**

- i) Equipments (solar cooker, Microwave, Gas stove, mixer grinder, etc.)
- ii) Utensils for cooking and serving
- iii) Refined flour
- iv) Milk and milk products (Paneer, Cheese, etc.)
- v) Prawn
- vi) Egg
- vii) Vegetables (broccoli, green chilies, etc.)
- viii) Oil and Ghee
- ix) Gram flour
- x) Cornflour
- xi) Spaghetti
- xii) Almonds
- xiii) Spices

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

Paper, Pen, Ingredients as per indent for four persons in reasonable quantity for Gujarati dishes, for Madeira cake: GP Paper for lining cake tin, flour/150g, caster sugar/100g., butter or shortening/100g., eggs/2nos., baking powder/1/4tspn., golden syrup/1table spoon, vanilla essence/ a few drops, emulsifier-optional. Cleaning equipment, material and detergents as required

99/247. **CUTTING & SEWING/SEWING TECHNOLOGY**

- | | |
|-----------------------|---------------|
| i) Brown craft paper | : 3 sheets |
| ii) Sewing kit | : 1 No. |
| iii) 2/2 rubia fabric | : 1 meter |
| iv) Buttons | : 6 Nos. |
| v) Blouse hooks | : 6 Nos. |
| vi) Sewing machine | : 1 No. |
| vii) Marking chalk | : 1 No. |
| viii) Matching thread | : 1 No. |
| ix) Fusing | : 0.25 meters |
| x) Lace | : 1 meter |

100. **DAIRYING**

- i) Two or three type of cows for identification
- ii) Brushes for grooming
- iii) Adequate supply of water
- iv) Tincture of iodine solution (7% or higher)
- v) Dry cloth to clean the cow
- vi) Standard material is a calf farm
- vii) Five types of grass and five feed material

101/243. **DESKTOP PUBLISHING OPERATOR**

- i) Corel draw
- ii) Adobe Photoshop

102. **DIGITAL PHOTOGRAPHER**
- i) Video camcorder, Tripod, Memory card, 3 outdoor led light, 2 Collar microphone, White board or White paper for white balance, PC to stone footage
 - ii) Computer, fire wire cable to capture the footage in computer, Memory card reader
 - iii) Computer with editing software.
 - iv) Computer with any video converter software
- 103/248. **DRESS MAKING**
- i) Brown craft paper : 3 sheets
 - ii) Sewing kit : 1 No.
 - iii) Medium weight cotton fabric : 2.75 meters
 - iv) Fancy buttons : 3 Nos.
 - v) Shirt buttons : 12 Nos.
 - vi) Sewing machine : 1 No.
 - vii) Marking chalk : 1 No.
 - viii) Matching thread : 1 No.
 - ix) Fusing : 0.25 meters
 - x) Elastics : 2 Metes
- 104/249. **EMBROIDERY & NEEDLE WORK/SURFACE ORNAMENTATION TECHNIQUES (EMBROIDERY)**
- i) Plain cotton fabric : 01 mtr. Of light shade/ivory/white
 - ii) Embroidery threads : 04 Nos. (assorted colors of Anchor)
 - iii) Embroidery and sewing Kit : 01 kit
(Matching thread, Embroidery Needle, round frame, machine needle, matching & contrast thread, bobbin case Scissors, tracing paper, blue color / Chalk power and kerosene oil etc".)
- 105/246. **FASHION DESIGN & TECHNOLOGY**
- i) Plain/Printed cotton fabric : 01 mtr.(Nursery print/plain fabric)
 - ii) Laces/decorative material : 01 mtr.
 - iii) Embroidery Thread : 2-3 shades
 - iv) Sewing Kit : 01 kit each student
(Cotton thread, machine, hand And embroidery needle, bobbin, bobbin case, fabric cutting scissors, tailor chalk, etc.)
 - v) Brown paper : 01 no.
 - vi) Pencil box : 01 no.
(HB pencil, eraser, sharpener, plastic ruler – 12")
106. **FINANCE EXECUTIVE**
- i) Telephone system
 - ii) Computer system with ms software
 - iii) Finance stationary

107. **FIRE TECHNOLOGY AND INDUSTRIAL SAFETY MANAGEMENT**

- | | |
|-------------------|------------|
| i) Section hose | : 10 feet. |
| ii) Fire hose | : 15m |
| iii) Fre hose | : 30m |
| iv) First aid box | : 1 No |

108. **FLORICULTURE & LANDSCAPING**

Asparagus, Ferns, Grevillea, Callistemon, Solidago palms, Cycad, Thuja, Lemon grass, Prunus, Russelia, Aglonima, Diffenbahea, Dressina, Saflera, Aerocaria, Moneyplant, Gladioli, Chysanthemum, marigold, Jaffery, Rose, Crossendra, Tube rose, Garenias, Jasmine, Amaranthus, Malathion, Ciathion, Parathion, Nuan, China aster, Chlorpyrophos, Dahlia, 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, Honey, Wax, Pollen, Propolis, Jelly

109. **FOOTWEAR MAKER**

- | | |
|-----------------------|---------------|
| i) Finishing material | : As required |
| ii) Insole board | : 1No. |
| iii) Shank board | : 1 No. |
| iv) Upper | : As required |
| v) Lining | : As required |
| vi) Cutting knife | : 1 No. |
| vii) Sharpening stone | : 1 No. |
| viii) Scissor | : 1 No. |
| ix) Awl | : As required |
| x) Rwl | : As required |
| xi) Rampi | : As required |
| xii) Adhesive | : As required |
| xiii) Steal shank | : As required |
| xiv) Tool kit | : 1 No. |
| xv) Hammer | : 1 No. |
| xvi) Sole | : 1 No. |
| xvii) Insole | : 1 No. |
| xviii) Toe puff sheet | : As required |
| xix) Counter sheet | : As required |
| xx) Nails-13mm | : As required |
| xxi) Lacing thread | : As required |
| xxii) Toe puff | : As required |
| xxiii) Adherive pot | : As required |
| xxiv) Nails 8mm | : As required |
| xxv) Lace | : As required |
| xxvi) Foam | : As required |
| xxvii) Cloth piece | : As required |
| xxviii) Sole cleaner | : As required |

- 110/239. **HAIR AND SKIN CARE/BASIC COSMETOLOGY**
- i) Cleansing milk, cotton , foundation ,face powder ,eye liner, eye brow pencil , mascara, eye shadow, blush-on , lip liner lipstick ,lip gloss ,make up brush, head band ,towel, cotton.
 - ii) Tail comb, bob pins, hair spray, hair accessories and rubber bands, Rollers
 - iii) Bowl, hair color, hair brush, hand gloves, plastic spatula, towel, tail comb plastic clips, foil paper.
 - iv) Tail comb, setting clips, neck cape, plastic rollers.
 - v) Hair color / hair bleach, bowl, tail comb, hair brush, globes, plastic spatula, towel, plastic clips, foil paper.
 - vi) Different colors, pointed brushes, tissue, cotton, cleansing milk
111. **HEALTH SAFETY & ENVIRONMENT**
- i) Standard tools & equipments required
112. **HEALTH SAFETY & INSPECTOR**
113. **HORTICULTURE**
- i) Fruits (as per the avail ability in season)
 - ii) FYM perlite, Vermiculite, Pots
114. **HOSPITAL HOUSEKEEPING**
- i) Tool and chemicals required for disinfection and sterilization
 - ii) Computer
 - iii) Linen and types
115. **HUMAN RESOURCE EXECUTIVE**
- i) Stationary HR
 - ii) Computer system
116. **LEATHER GOODS MAKER**
- i) Leather
 - ii) Silk /Imitation suede lining
 - iii) Thread
 - iv) Matching colour dye
 - v) Adhesive
 - vi) Tool kit
 - vii) Eyelets
 - viii) Purse button
 - ix) Finishing materials
 - x) Packaging materials
 - xi) Skiving knife
 - xii) Cutting blade
 - xiii) Awl
 - xiv) Burnishing tool
 - xv) Sharpening stone
 - xvi) Grinder machine
 - xvii) Accessories

117. **LITHO-OFFSET MACHINE MINDER**
 i) Cleaning materials like cotton cloth, lubricating oil, grease gun oil can, cotton waste. : As required
 ii) Blanket, developed offset plates for printing (Two colours) : As required
 iii) Paper, Inks and other chemicals for printing : As required
 iv) Sheet fed offset printing machine (Single/Bi-colour) : As required
 v) Tools and equipments of offset printing department : As required
 vi) Web offset machine with two units, paper rolls : 1 No.
118. **MARKETING EXECUTIVE**
 i) Stationary items
 ii) Computer system
 iii) Broadband connection
 iv) Telephone system
- 119/244. **MULTIMEDIA, ANIMATION & SPECIAL EFFECTS**
 i) MAYA Youtube
 ii) Adobe flash
 iii) MS front page
 iv) PC with internet connection
120. **OFFICE ASSISTANT CUM COMPUTER OPERATOR**
 i) MS office
 ii) DBMS
 iii) Internet connection
 iv) Personal computer
121. **PHOTOGRAPHER**
 i) Video camcorder, Mini-DV tapes, Tripod, PC with Video editing software, Speakers CD/DVD etc.
 ii) Digital SLR camera, Tripod, Flash Gun Studio lights Electronic Umbrella lights, Spot lights
 iii) Video camcorder, Mini-DV tapes, Tripod
122. **PLATE MAKER- CUM IMPOSITOR**
 i) Cleaning materials like cotton cloth, lubricating oil, grease gun, oil can, cotton waste.
 ii) All the chemicals and collid for coating and developing of different kinds of plate.
 iii) Plate whirler machine for coating, pre-grained plate for coating.
 iv) An plate exposing machine for exposing the plate
 v) A lining-up table for assemble the films and page make-up of films for exposing.
 vi) Tools and equipments, plate quality control strips of plate making department
- 123/245. **FRUITS AND VEGETABLES PROCESSING**
 Seasonal juicy Fruits : 1 kg.

124. **PROCESS CAMERAMAN**
 i) Digital SLR camera, Tripod, Hood, Zoom lens, Wide angle lens, PC with photo editing software.
 ii) Video camcorder, PC with capture card and video editing software.
 iii) Digital camera, Tripod, Scanner and PC with photo editing software and video editing software
 iv) Computer with working internet connection.
- 125/258. **SECRETARIAL PRACTICE ***
- 126/259. **STENOGRAPHER & SECRETARIAL ASSISTANT (ENGLISH) ***
- 127/260. **STENOGRAPHER (HINDI) ***
- 128/252. **STEWARD/FOOD & BEVERAGES GUEST SERVICE ASSISTANT ***
- 129/262. **TRAVEL & TOUR ASSISTANT/TRAVEL AND TRAVEL ASSISTANT ***
- 130/263. **WEAVING OF SILK AND WOOLEN FABRICS**
 i) Power loom
 ii) Complete accessories
 iii) Yarn on beams
 iv) Yarn for weft
 v) Graph sheets
131. **WEAVING OF WOOLEN FABRICS**
 i) Graph sheets : As required
 ii) Peg dobby : As required
 iii) Sufficient swatches of woollen fabric with hand milling arrangements
 iv) Cards for card cutting for jacquard weaving
240. **SPA THERAPY**
 i) Yoga mat : 1 No.
 ii) Massage oil : As required
 iii) Cleansing milk : As required
 iv) Scrub : As required
 v) Cream : As required
 vi) Face pack : As required
250. **COMPUTER AIDED EMBROIDERY & DESIGNING**
 i) Zigzag/ari/Computer embroidery machine : 1 No. each
 ii) Glazed cotton/ Silk/Satin fabric : 1/2 metre
 iii) Tracing paper : 1 sheets
 iv) Embroidery threads : 3 (in different colour)
 v) Embroidery kit : 1 No.

254. **FRONT OFFICE ASSISTANT**
i) Front office stationary
ii) Computer system
255. **HOUSE KEEPER ***
256. **OLD AGE CARE ASSISTANT**
Linen, Towels, Toiletries, Trolley, Phenol, Soap, Any available fire extinguisher
257. **PREPARATORY SCHOOL MANAGEMENT (ASSISTANT) ***
261. **TOURIST GUIDE ***
279. **FOOD BEVERAGES**
i) Soda, Colas, Sugar, Bottles, Labeling material, Milk/youhurt, Pouch, sealing machine, material for preparation of whiskey, quality testing alcoholic drink bottles etc. : As required
283. **BAMBOO WORKS**
i) Bamboo slivers, Bamboo slivers, lighting/ electrical material
ii) Bamboo slivers and bamboo sticks
133. **DENTAL LABORATORY EQUIPMENT TECHNICIAN**
i) Cold cure acrylic (powder & liquid)
ii) Cold mould seal
iii) Marker
iv) Carver
v) Pliers
vi) Wire
vii) Maxillary cast edentulong
viii) Mandibular cast edentulong
ix) Maxillary rim (base plate with wax)
x) Mandibular rim
xi) Modelling wax
xii) Teeth set
xiii) Burner
xiv) Articulator
xv) Pop
xvi) Rubber bowl
xvii) Spatula
134. **ARCHITECTURAL DRAUGHTSMANSHIP ***

901.	ARCHITECTURE DRAUGHTSMAN	
	i) A1 size cartridge sheets	: 85 Nos.
	ii) A1 size tracing sheets for rough sketching	: 40 Nos.
	iii) Thread of 5m for tying sheet	
	iv) Stapler	: 1 No.
	v) A1 size drafting table and stools for trainees	: 20 Nos.
	vi) Chair and tale for examiner	: As per requirement

Note: *Tools &Equipments as per syllabus may be kept ready in working condition.
