

**BILL OF MATERIAL REQUIRED FOR EACH TRAINEE FOR ALL INDIA TRADE
TEST OF CRAFTSMEN TRAINING SCHEME (SEMESTER PATTERN) TO BE HELD
IN JULY – 2017
(SEMESTER – III)**

30. ATTENDANT OPERATOR (CHEMICAL PLANT)*

31/217. DRAUGHTSMAN CIVIL*

32/224. DRAUGHTSMAN MECHANICAL*

33/231. ELECTRICIAN

- i) Synchronous motor
- ii) Auto transformer starter

34/219. ELECTRONICS MECHANIC

- i) Fuse kit (different types) : As required
- ii) Microcontroller IC kit
- iii) Strain gauge kit
- iv) Relay
- v) Multimeter
- vi) Load cell sensor with setup
- vii) Weights (5kg)
- viii) Connecting wire
- ix) Graph paper
- x) DSO

35/233. ELECTROPLATER

- i) Steel article
- ii) Arrangement for Cathode cold cleaning
- iii) EMF measurement apparatus
- iv) Bath for chromium coating
- v) Hollow iron article

36/227. FITTER

- i) M.S flat 80mm x 55mm x 10mm : 2 Nos.

37. INSTRUMENT MECHANIC

- i) Regulated power supply (0-30)V
- ii) DC motor : 1 No.
- iii) Non contract type tachometer : 1 No.
- iv) Contact type tachometer : 1 No.
- v) Multimeter
- vi) Load cell sensor with setup
- vii) Weights (5kg)
- viii) Connecting wire
- ix) Graph paper
- x) Dead weight tester

- xi) C-type bourdon gauge
- xii) Rotameter
- xiii) Dial thermometer
- xiv) Speedometer

38. INSTRUMENT MECHANIC (CHEMICAL PLANT)

- i) Volumetric flow meter such as rotameters
- ii) Ultrasonic solid level
- iii) Microwave level detectors
- iv) Pressure gauge

39/220. INFORMATION TECHNOLOGY & ELECTRONICS SYSTEM MAINTENANCE / ICTSM

- i) Linux OS CD
- ii) Ammeter, voltmeter, printer testing kit
- iii) Display driver card
- iv) Modem

40. LABORATORY ASSISTANT (CHEMICAL PLANT)

- i) Beaker
- ii) Heater
- iii) Flask
- iv) Funnel
- v) Raw material

41/234. LIFT MECHANIC / LIFT & ESCALATOR MECHANIC

- i) Working model of escalator
- ii) 5/8 passenger lift installed with all control and safety accessories.
- iii) Rail alignment gauge
- iv) Working plant
- v) Different ICs and electronic components, multimeter
- vi) Panel of 3- ϕ induction motor, DOL starter or star / delta starter, Required instrument for measuring current & voltage, connecting wires.

42/222. MACHINIST

- i) Cast iron block 63mm x 33mm x 43mm : 2 Nos.

43/223. MACHINIST GRINDER

- i) Ferrous stock size Fe310-O 172mm x 50mm x 3mm : 1 No.

44. MAINTENANCE MECHANIC (CHEMICAL PLANT)

- i) Non-return valves
- ii) Ball valves
- iii) Needle valves
- iv) Motor with shaft and coupling

45. MARINE FITTER***47/216. MECHANIC AGRICULTURAL MACHINERY**

- i) Disc plough
- ii) Tractor in running condition
- iii) Cultivator
- iv) Disc harrow

48. MECHANIC COMPUTER HARDWARE

- i) Operating system CD
- ii) Laptop
- iii) Computer tool kit
- iv) Antivirus software CD

49/273. MECHANIC CONSUMER ELECTRONICS / MECHANIC CONSUMER ELECTRONIC APPLIANCES

- i) Experimental board
- ii) PNP and NPN transistor
- iii) Power supply
- iv) Mill ammeter
- v) Multimeter
- vi) DSO
- vii) CRO
- viii) Function generator
- ix) +5V DC power supply
- x) IC 8038
- xi) Breadboard
- xii) Connecting wires
- xiii) PCB
- xiv) Pump
- xv) Wick
- xvi) Different types of cables, connector, soldering set
- xvii) Required tools & accessories

50. MECHANIC CUM OPERATOR ELECTRONIC COMMUNICATION SYSTEMS

- i) PCB circuit containing different electronics components
- ii) Soldering iron
- iii) Flux
- iv) Digital logic trainer kit
- v) 7402 NOR gate
- vi) Connecting wires
- vii) Microprocessor trainer kit
- viii) (0-5V) DC battery
- ix) Transistor
- x) AFO
- xi) IC NE566
- xii) Resistor
- xiii) Capacitor
- xiv) CRO
- xv) Different types of cables (CAT5, CAT 5E, CAT6, CAT7)

51. MECHANIC INDUSTRIAL ELECTRONICS

- i) Capacitive proximity switch with leads
- ii) LED
- iii) AM trainer kit
- iv) CRO
- v) Thermocouple
- vi) Experiment set up composed of Rotary encoder with motor module and frequency counter.
- vi) Digital multimeter
- vii) Related tools, instruments, accessories, power supplies and connecting leads / wires.
- viii) DC power supply

52/225. MECHANIC MACHINE TOOL MAINTENANCE

- i) Milling machine in working condition
- ii) A complete set of tools
- iii) Measuring / testing equipments
- iv) MS Plate 60mm x 60mm x 15mm : 1 No.
- v) Outside vernier calliper
- vi) Milling machine
- vii) Face milling cutter
- viii) Clamping device

53. MECHANIC MECHATRONICS

- i) Gear box
- ii) Oil
- iii) PLC kit
- iv) Induction motor panel
- v) Ammeter
- vi) Voltmeter
- vii) Multimeter

54. MECHANIC MEDICAL ELECTRONICS

- i) Screw driver set
- ii) Soldering iron
- iii) Digital multimeter
- iv) Connecting wires
- v) ECG recorder
- vi) Pace maker
- vii) Incubator
- viii) Personal computer
- ix) Digital IC trainer
- x) HOT Air Oven

55/215. MECHANIC MOTOR VEHICLE

- i) Vehicle on which the adjustment to be carried out
- ii) Toe-in / toe-out gauge
- iii) Fitters tool box with required tools
- iv) Fitters tool box with required tools

56/218. MECHANIC REFRIGERATION & AIR-CONDITIONING

- i) Visible cooler : 1 No.
- ii) Thermostatic expansion valve : 1 No.
- iii) Tools and equipment for above operation

57. MECHANIC RADIO & TELEVISION

- i) CRO
- ii) AC/DC voltage source
- iii) Single core connecting wires
- iv) Signal generator
- v) Car stereo system
- vi) Car stereo test simulator
- vii) Bread board
- viii) Trigger circuit
- ix) Single core connecting wires
- x) CD player
- xi) CD player test probe / simulator
- xii) BJT, IC tester, Resistor, Voltage source(s), Multimeter (Digital)
- xiii) Wall mounted TV with accessories
- xiv) Car audio system

58/226. OPERATOR ADVANCE MACHINE TOOLS***59. PAINTER (GENERAL)**

- i) Metal piece of suitable size
- ii) Paints as required
- iii) Surface wall as available
- iv) Emery papers
- v) Wire brushes
- vi) Protective / Safety equipments

60. RADIOLOGY TECHNICIAN

- i) Chemicals and accessories required
- ii) Contrast medium
- iii) Tools and chemicals required for exposure on operation theatre.

61/235. SPINNING TECHNICIAN

- i) Draw frame machine intact with all parts.
- ii) Speed frame machine intact with all parts.
- iii) Ring frame machines in running condition
- iv) Respective material on each machine
- v) All tools and gauges
- vi) Vernier caliper

62. SURVEYOR

- i) 20m chain
- ii) Prismatic compass
- iii) Ranging rod
- iv) Metallic tape

63/236. TEXTILE MECHATRONICS

- i) Cone winding machine
- ii) Shuttle less loom
- iii) Measuring tape
- iv) Scale

64/237. TEXTILE WET PROCESSING TECHNICIAN

- i) Lab model ETP
- ii) Textile water effluent and chemicals to run ETP
- iii) Boiler

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

- i) Mild steel round ϕ 52mm x 42mm : 2 Nos.

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

- i) MS round ϕ 22mm x 20mm : 2 Nos.
- ii) Mild steel plate 85mm x 75mm x 15mm : 1 No.

67/221. TURNER

- i) MS Round ϕ 40mm x 110mm : 1 No.

68. VESSEL NAVIGATOR

- i) Trawl knot
- ii) Trimmer

69/238. WEAVING TECHNICIAN

- i) Fully functional automatic loom
- ii) Graph paper
- iii) Pick glass

70/232. WIREMAN

- i) PNP and NPN transistor, multimeter
- ii) Automatic electric iron, Heating element, tool kit
- iii) DC shunt motor, three point starter, plier screw, driver, small alternator

265. TECHNICIAN POWER ELECTRONICS SYSTEMS

- i) Fuse kit
- ii) DSO
- iii) PCB circuit kit
- iv) Microcontroller IC kit
- v) Relay
- vi) Multimeter
- vii) Connecting wire
- viii) Graph paper
- ix) MCB
- x) Available small capacity motor
- xi) Induction motor with DOL starter & Instruments experimental panel

274. REFRACTORY TECHNICIAN

- i) Paddle mixer : 1 No.
- ii) Bricks : As required
- iii) Material for mortar : As required

275. MECHANIC REFRIGERATION AND AIR-CONDITIONING PLANT

- i) Cold storage with leakage : 1 No.
- ii) Refrigerant : Ammonia : As required

276. CIVIL ENGINEERING ASSISTANT

- i) Cement : 1.5 Kg
- ii) Sand : As required
- iii) Aggregate : As required
- iv) Mixer and Vibrator : One each

277. INFORMATION TECHNOLOGY

- i) Laptop with faulty sound card : 1 No.
- ii) Working sound card : 1 No.
- iii) Printer tool kit

133. DENTAL LABORATORY EQUIPMENT TECHNICIAN

- i) Band rollers
- ii) Band stretchers
- iii) Molar leap band
- iv) Pencil
- v) Marker
- vi) Clasp
- vii) Wire
- viii) Cutter
- ix) Plier
- x) Casts

134. ARCHITECTURAL DRAUGHTSMANSHIP*

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