Government Industrial Training Institute

Trades under C.O.E.

Information Technology
Hospitality Management
Fabrication (Fitting & Welding)
Automobile
Production & Manufacturing
Electrical

Engineering Trades

II & Electronics System Maintenance
Fitter
Turner
Machinist
Electrician
Instrument Mechanic
Mech. (RAC)
Electronics Mechanic
Draughtsman (Mechanical)
Draughtsman (Civil)
Mechanic (Motor Vehicle)
Welder (Gas & Electric)
Wireman
Mechanic (Diesel)
Carpenter
Plumber

Non-Engineering Trades

Computer Operator & Programming Assistant	
Desktop Publishing Operator	
Craftsmen Food Production (Gen)	
Steward	
Secretarial Practise	
Stenography (English)	
Cutting & Sewinng	
Hair & Skin Care	

Short Term Course

Data Entry Operator Driver cum Mechanic

Admissions are open for year 2013 - 14

evenument of Goa

1

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No.:



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GOVERNMENT INDUSTRIAL TRAINING INSTITUTES

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GOVERNMENT ITIS OF GOA

Sr. No.	Name & Address	Phone No.
	NORTH	
1	Pernem Government Industrial Training Institute, Tuem, Pernem – Goa. Pin Code- 403 512	2201238
2	Mapusa Government Industrial Training Institute, Peddem, Mapusa – Goa. Pin Code – 403 507	2262637
3	Bicholim Government Industrial Training Institute, Valshi, Bicholim – Goa. Pin Code – 403 504	2362315
4	Sattari Government Industrial Training Institute, Honda, Sattari – Goa. Pin Code – 403 530	2370242
5	Panaji Government Industrial Training Institute, Altinho, Panaji – Goa. Pin Code – 403 001	2226333
6	Farmagudi Government Industrial Training Institute, Farmagudi, Ponda- Goa. Pin Code – 403 401	2980070

7	Vasco Government Industrial Training Institute, Bogda, Vasco – Goa. Pin Code – 403 802	2524030
8	Margao Government Industrial Training Institute Borda, Margao – Goa.	2714887 (Margao)
	& Ext. at Aquem Baixo, Margao – Goa. Pin Code – 403 602	2765846 (Aquem Baixo)
9	Cacora Government Industrial Training Institute, Cacora, Curchorem - Goa. Pin Code – 403 706	2650270
10	Canacona Government Industrial Training Institute, Mastimol, Canacona – Goa. Pin Code – 403 702	2633354



State Directorate of Craftsmen Training

Prospectus

Of

Industrial Training Institutes

INTRODUCTION:

Industrial Training Institutes (ITI) have been set up under the Craftsmen Training Scheme (CTS) and Center of Excellence Scheme (CoE) in Goa with an objective to ensure a steady flow of skilled personnel to the public and private sectors, and to reduce unemployment amongst the educated youth by equipping them with the required skills, education and discipline.

There are 10 numbers of Government Industrial Training Institutes in Goa, with a ratio of about 1:1 in each taluka imparting training in various Engineering and Nonengineering trade courses suitable to the Indian industrial environment. Most of the trades and units available in these Institutes are affiliated to the National Council for Vocational Training (NCVT), New Delhi through the Directorate General of Employment and Training (DGE&T) in the Ministry of Labour, Government of India, New Delhi and the training is imparted as per the syllabus and curriculum approved by Government of India in consultation with NCVT. However, some of the trades/units in these ITIs are affiliated to State Council for Vocational Training (SCVT), Panaji-Goa.

ASSOCIATION WITH INDUSTRY

The 10 ITIs are being upgraded into Centers of Excellence (CoE) either through domestic/World Bank funding or through Public Private Partnership (PPP) mode for producing multi-skilled workforce of international standards and there is active involvement of industry executives as members of Institute Management Committee (IMC).

Presently, Government ITIs Panaji and Mapusa have been upgraded under domestic funding, and Government ITIs: Pernem, Bicholim, Sattari, Farmagudi, Margao, Cacora and Canacona are being upgraded under Vocational Training Improvement Project (VTIP) Scheme with World Bank assistance. The Vasco Government ITI is the only ITI to have been upgraded under Government of India's scheme for "Upgradation of 1396 government ITIs through Public Private Partnership" with Society for Industrial & Technical Education of Goa (SITEG) as its Industry Partner.

GENERAL INFORMATION

Working Hours:

A sessional year in the ITI consists of 52 weeks and commences in the first week of August and ends in the month of July of the subsequent year.

The ITIs function in two shifts as per the following timings:

- 1) Ist shift: 8:00 a.m. to 3:30 p.m. with $\frac{1}{2}$ hour lunch break
- 2) IInd shift: 10:00 a.m. to 5:30 p.m. with $\frac{1}{2}$ hour lunch break

Total training hours: 42 hours per week

- a) Practicals: 28 hours per week
- b) Theoretical Subjects: 10 hours per week
- c) Sports/ECA/IT Literacy: 04 hours per week

Holidays:

Trainees are allowed to avail the same number of holidays as declared by the Government of Goa from time to time.

Leaves Admissible to Trainees:

- 1) Casual leave: Casual leaves of 12 days per year subject to a maximum of 10 days at a time.
- 2) Medical leave: Medical leave of 15 days in case of illness duly supported by medical documents from registered medical practitioner. A further period not exceeding 3 weeks for one-year trade course and 6 weeks for 2-year trade courses shall be granted in continuation or in addition to 15 days absence on medical grounds.
- 3) Special leave: Special leave on private affairs shall be allowed to a trainee upto 10 days. However, this limit can be extended to 15 days or 30 days if supported by proper justification and subject to the satisfaction of the Head of the Institute on the basis of genuine reasons. No scholarship will be admissible during the period of special leave to a trainee who is a scholarship holder.

Suspensions/Discharge:

A trainee found guilty of unsatisfactory progress in training, or having less than 80% attendance at any time during the course of training or indulging in acts of indiscipline and misconduct shall be discharged from the institute. If any investigations of allegations against a trainee suspected to be involved in acts of indiscipline or misconduct are pending, the trainee shall be placed under suspension. However, no stipend will be paid to a trainee who has been suspended for misconduct.

Identity Card:

Every trainee will be provided with an Identity Card (ID) after seeking admission to the Institute and it is mandatory for every trainee to display the card on person throughout the training period. Each trainee will have to pay Rs. 40/- towards issue of ID card at the time of admission.

A trainee is required to submit two copies of his/her latest photographs of 32×34 mm size at the time of admission.

In case of loss of an ID card, a duplicate ID card would be issued on production of (i) An affidavit (ii) F.I.R. copy (iii) Latest photograph and (iv) A fee of Rs.100/-.

Discipline:

All the admitted candidates are required to strictly abide by the provisions of rules and regulations prescribed by the State Director of Craftsmen Training (SDCT)/Principal of the Institute as regards to their conduct and discipline and strictly follow the training schedule as per the time-table. The trainee is further required to adhere to the following guidelines:

- 1) Ragging in any form is banned.
- 2) Trainees are required to wear the institute uniform at all times and the workshop clothing during the Practical hours.
- 3) Use of mobile phones in the workshop and classroom is banned for trainees as well as staff.

Concessions:

Trainees will be given the following concessions while at the Institute:

- 4) Tuition Fees is waived off for SC /ST / BPL candidates and also the candidates whose Annual family income is less than Rs.1,50,000/-.
- 5) Free workshop and uniform clothing (two pairs each) to all the trainees to the extent that the cloth required for stitching shall be provided by the Institute. The trainees shall bear the cost of stitching the material. The trainees shall stitch the clothing within 15 days from the date of issue of the cloth.
- 6) Free facilities for recreation, library, sports, etc.

Transport Facility:

Transport facility is provided at ITI Sattari, Farmagudi, Vasco, Cacora, and Canacona and the trainees are charged @ concessional rate of Rs. 3/- per trip from the I.T.I. to the nearest bus stand and vice-versa. A monthly pass will be issued to the trainees to avail this facility.

TRAINING

Trades Offered at the ITIs vis-à-vis their Employment Opportunities:

7) <u>Computer Operator & Programming Assistant</u> (Duration: 2 semesters of six months each)

Course Content: 1. Fundamentals of Computer; 2. Software and Hardware Concepts 3. Operating Systems: Microsoft Windows XP/7, Overview of Linux; 4. Networks & Communication: Networking Concepts, Topologies, LAN/MAN/WAN, Internet, Web designing using HTML; 5. Maintenance of PC and its peripherals 6. Programming Languages: Developing programs from Programming Logic & Techniques, Algorithm/Pseudocode/Flowcharts, C language & Approaching ASP.NET starting with Visual Basic.NET; 7. Application Packages: Microsoft Office 2007 or Higher 8. DBMS & RDBMS Concepts, Microsoft Access 2007, MySQL; 9. Awareness of IT Act 2000.

Skills Acquired: On completion of course the trainee will be able to work on Hardware & Software concepts, Installing & working with Microsoft Windows XP/7 Operating System, Overview of Linux Operating System, Basic concepts of

Networking, Internet browsing and Email, Multimedia concepts, Web designing using HTML, First Aid Maintenance of PC and its peripherals (Printer Scanner, Web Camera, CD – Writing), Developing Programs from planning & flowcharting to coding & debugging using programming languages C & Approaching ASP.NET starting with Visual Basic. NET, Learning various [packages supported by PC such as Microsoft Office 2007 or higher including MS- Word, M.S. Excel and M.S- PowerPoint, Managing relational databases and developing customized application using MS-Access and MySQL. Awareness of IT Act 2000.

Options for employment are: Assistant Programmer in software development firms; Faculty member or Lab Assistant in Computer Institutes or Schools; Internet Operator in Cyber café; Computer operator in Industry, Offices, etc.; Assistant to Service Engineers; Sales person in Hardware & Software firms, etc.

Options for self-employment: Opening a Computer Institute, Cyber café & DTP center; Opening a Computer consumable shop; Take up data processing jobs.

8) <u>Information Technology & Electronic System Maintenance</u> (Duration: 4 semesters of six months each)

Course Content: Introduction to NCVT and its certification mechanism Occupational Safety & Health, Electrical Basics Battery /Cells Electrical components and protective devices Passive components Analog Electronic components Basic Test and Measuring instruments Electrical and electronic cables, sockets, connectors, preparation and terminations Soldering & Desoldering various components Digital Electronic ICs Opto Electronic components Analog electronic circuits Digital electronic circuits Wave shaping circuits Linear Integrated circuits CRO Power electronic components Power electronic circuits Power supplies Stabilizers and SMPS Switching circuits UPS PCB preparation, Repair and Design (including SMD components) Microprocessors Microcontrollers Optical fibre cables, components and systems PC HARDWARE, OS AND NETWORKING MS word MS EXCELMS Power Point: Laptop basics Maintenance of optical and wireless Mouse Servicing of Remote Electronic Communication basics and Antennas card swiping machines barcode readers Charge-Couple Device (CCD) biometric systems principles of LCD projectors Electronic billing systems display panels Various features of digital weighing scales Washing M/c Microwave oven vacuum cleaner.

Skills Acquired: On completion of the trade course the trainee will be able to understand and operate Electrical components and protective devices, Passive components, Analog Electronic components, Measuring instruments, Electrical and electronic cables, sockets, connectors, preparation and terminations, Soldering & Desoldering various components, Digital Electronic ICs, Opto Electronic components, Analog electronic, circuits, Digital electronic circuits, Wave shaping circuits, Linear Integrated circuits, CRO, Power electronic components, Power electronic circuits, Power supplies, Stabilizers and SMPS, Switching circuits, PCB preparation, Repair and Design (including SMD components, Microprocessors, Microcontrollers, Optical fibre cables, components and systems, PC HARDWARE, OS AND NETWORKING, MSword, MSEXCEL, MS Power Point, Maintenance of optical and wireless Mouse, Servicing of Remotes, Electronic Communication basics and Antennas, Industrial sensors and Actuators. The trainee can independently install, test & repair common household electrical and electronic equipment's & gadgets, general office equipment, personal computers & peripherals, Operate, test & maintain measuring instruments.

Options for employment are: Computer System Maintenance Personnel; Supervisor in Electronic Assembly Units; Electronic Technician (Assembly, Test, Maintenance, Troubleshooting & Quality control); Communication & Office Equipment's Maintenance Personnel

Options for self-employment are: On completion of the course the trainee can undertake repair of Computer Hardware peripherals & maintenance; Electronic & Electrical Maintenance & Repairs (Audio System, TVs, VCDs, Washing Machines, Microwave Ovens etc.); General Office & Communications Maintenance (Telephone, Fax, EPABX etc.); Setup & Maintain Cyber Café's Internet, E-mail & Allied Communications & Software Services (Browsing, Scanning, Printing, Computer Typing, Telephone, Fax, Xerox, Leasing of System & Projectors)

9) **Desk Top Publishing Operator**: (Duration: 2 semesters of six months each)

Course Content: Fundamental & Basics of Computer, Operating Systems, Networking concepts, Printing Processes, Document Setup, Desktop Publishing, MS-Office word, Adobe, Page Maker, Quark Express, In Design, Illustrator, CorelDraw and Photoshop, Composing Process, Document Design and Advance Features, Scanning and conversion of data, Graphic design, Page make-up: (Magazines, Newspapers, Books), Conventional and Metric papers, File & Print Management, Digital Printing, Project Work, Costing & Estimating, Industrial Visit.

Skills Acquired: On completion of the course, the trainee will acquire skills on Fundamental & Basics of Computers, Operating Systems, Typing Accuracy and Speed, Internet & Networking Concepts, Understanding of File Manipulations in various Softwares, Microsoft Word, Adobe Pagemaker, Quark Xpress, Indesign, Illustrator, CoralDraw & Photoshop, Color correction & Color Separation (prepress), composing in regional languags Spiral/Spico Binding, Design page layouts for newpapers, books, brochures, and other items that will be printed, Graphic Design and Image Editing.

Options for employment are: DTP Artist / Visualiser in Advertising Company; DTP Operator in Newspaper Publishing Industry, Print & Packaging Company; Prepress In-charge in Printing Industry, Service Bureau; Data Entry Operator in Office Administration. As a faculty in Computer Institutes & Schools.

Options for self-employment are: DTP Service Centre: Typesetting of various types of jobs, Photocopying, Lamination & Spiral binding; Commencing a Digital Printing, Offset & Screen Printing venture; Starting an Advertising Agency: undertake Newspaper advertisement & designing of numerous types of advertising materials; Freelancer: Graphic designing of promotional material for events & exhibitions.

10) Fitter (Duration: 4 semesters of six months each)

Course Content: Familiarization with the Institute Importance of safety and general precautions, Bench vice construction, types, uses, care & maintenance, Files- specifications, Marking off and layout tools, Calipers- types, material,

Surface plate and auxiliary marking equipment, Physical properties of engineering metal, Drilling processes, Micrometer, Anvil and swage blocks, Measuring and checking tools, Heat treatment, Safety precautions to be observed in a sheet metal workshop, Solders, Rivets, H.P. welding equipment, Oxygen acetylene cutting, Safely precautions to be observed while working on a lathe, Lathe cutting tools, Chucks, General turning operations, Screw thread, Drill- material, Grinding wheel, Preventive maintenance-objective and function of P.M., section inspection; Introduction to Renewable/Green Energy, Keys and keyways, Lapping, Honing, Fits, Bearing-Introduction, Hardening and tempering, Case hardening and carburizing, Drilling jig-constructional features, Fixtures, Pipes and pipe fitting, Aluminium and its alloys, Power transmissions, Pulleys, Lubrication and lubricants, Bio Mass Gasification, Installation, maintenance and overhaul of machinery and engineering equipment, Wind Mill, Foundation bolt: types

Skills Acquired: On completion of the course he shall be able to independently prepare machine components, using skills such as filing, hack sawing, chipping, drilling chipping, reaming, screw cutting and scrapping, individually handle precision measuring instruments and read machine drawing, also handle various fitter tools and operate different machine such as drilling machines. Operate lathe machines, grinding machines, electric welding transformer, power hacksaw machines and an advanced C.N.C. drilling machine. Acquires allied skills such as welding, sheet metal work, forging, turning and pipe fitting. Capable of repairing and overhauling different types of machines.

Options for employment are: Bench fitter in manufacturing industries; maintenance fitter in shipping industries and oil rigs; erection in various industries; fabricator for windows/shutter in small workshops; Stores clerk in an Engineering stores.

Options for self-employment are: Can set up own workshop for fabrication and structural work such as grills, gates, steel; furniture and shutters; can carry out repairs and maintenance of domestic water pipe line individually; can manufacture cutlery such as chopper, knife, axe and chisel; can manufacture and repair locks and keys; can undertake repairs of machines.

11) **Turner** (Duration: 4 semesters of six months each)

Course Content: Importance of safety and precautions to be oversexed in the section as well as in the institute, Measurement, line standard and end standard, Vice – types and uses, Vee – block, Center punch, Surface plate, Definition of machine & machine tool and its classification, Classification of lathe in Function and construction, Orthogonal & oblique cutting, Different types of lathe tool posts, Combination drill, Different types of micrometer, Letter and number drill, Lathe centers-types, Reamers-types and uses, Knurling, Concept of interchangeability, Taper – necessity, different types of form tool & their uses, Combination set-square, Gauge, Vernier height gauge, Different types of screw thread- their forms and elements, Calculation involving gear ratios and gearing, Basic process of soldering, welding and brazing, Review of lathe machine, Cutting tool material, Form tools-function-types and uses, Jig and fixture, Sine bar-construction, Tool life, Lubricant, Preventive maintenance, its necessity, Roller and revolving steadies, Multiple thread, Thread dimensions, Heat treatment, Conceptualisation of CNC technology, Programming execution in different modes, Different types of milling machines and operations, Special

lathe-copying, Interchangeability, Different types of programming techniques of CNC machine.

Skills Acquired: On completion of the trade course, trainee shall be able to independently operate machines like Centre Lathe, Turret, Capstan Lathe, Grinders, Drilling M/C, Power Saw M/C etc. The trainee shall also be able to perform various operations like turning, facing steps turning, knurling, drilling, boring, taper turning, basic fittings, thread cutting, eccentric turning etc. The trainee also will be capable of programming and operating CNC Lathe, which is essential in various industries.

Options for employment are: After completion of the trade course, the trainee can be employed as a skilled turner in various industries like MPT, Goa Shipyard, GAAL, ACGL, Chowgule Industries and Small Scale Industries in different industrial estates in the state.

Options for self-employment are: Trainee can start his own Small Scale Industry/Manufacturing Unit for production of components like nut-bolts, shafts, gears, pins, pulleys, crank shafts of various machine parts, cylinder boring and also undertake repair of all types of machinery.

12) Machinist (Duration: 4 semesters of six months each)

Course Content: Occupational Safety & Health, Hand tools and its importance, Classification and types of chisels, Marking block, Heat treatment process, Outside micrometer, Introduction of shaper, Shaping tools and types, Slotterprinciple, Use of tool with holder for internal operations, Introduction to coolant & lubricant, Use of circular marks, Introduction to Planning M/c, Introduction to lathe, Milling machine, Different milling operations, Gear introduction, Grinding machine introduction , Solar Water Heaters (SWH), Solar Cookers, Turning, Properties of metals , Interchangeability, Introduction and their indexing process on a slotter, Hydraulic transmission in machine tool,Spiral introduction, Cam Introduction , Bio Mass Gasification, Wind Mill, Small Hydro Power (SHP), Introduction to CNC Technology CNC M/c.

Skills Acquired: After completion of this trade, trainee is capable and confident of operating various machine tools such as Milling, Lathe, Shaper, Slotter, Planner, Drilling, Grinder (surface, cylindrical and Tool & Cutter grinder), and also basic C.N.C. Milling. So that Machinist can produce various jobs with different shapes and sizes from the above said machine tools as required in the major industries and small workshops. He shall be an expert in cutting of various gears like Spur, Helical, Bevel, Worm Wheel etc.

Options for employment are: There is lot of demand for machinist in major industries like Goa Shipyard, Mormugao Port Trust, A.C.G.L., GAAL and also various small scale industries, which are existing at different industrial estates.

Options for self-employment are: Skilled Machinist can start his own workshop and can supply the products of various jobs to the auxiliary units as a sub-contractor. Machinist trade is also preferable for seeking admission in the Polytechnic.

13) **Electrician** (Duration: 4 semesters of six months each)

Course Content: Scope of the trade, introduction to electricity & safety precautions, common hand tools, classification of electrical materials, basic electrical terms, work, power & energy, electrical measuring instruments, fitting hand tools, carpentry hand tools their use & maintenance, allied trade work, introduction to sheet-metal work, common electrical accessories, basic circuits, domestic, commercial & industrial wiring methods, installation & testing, commercial wiring, industrial wiring, illumination, earthing system, planning, estimation & costing, magnetism & electromagnetism, dc machines & control gears, ac fundamentals, single phase & 3 phase, single phase induction motor, study, repair & maintenance of domestic electrical appliances, rewinding of chokes, coils & small transformers, rewinding of ac motor, dc motor winding, basic electronics-introduction, components, characteristics, electronic measuring instruments, electronic circuits- transistor amplifiers, oscillator circuits, op-amp & triggering circuits, thyristors, ac/dc drives, voltage stabilisers, digital electronics, alternator, ac motors, starters & maintenance, plc, machine maintenance, batteriestypes, testing & maintenance, transformers, distribution of power, UG & OH, switchgears, types of substations- indoor, outdoor & pole mounting, underground cable-types, joints, termination & testing.

Skills Acquired: On completion of the course the trainee shall have thorough knowledge of generation, transmission and distribution line, overhead different types of insulators. Earthing used in substation, power station, lighting arrestor, reactor, and different types of capacitors in AC/DC circuit used in electronic and electrical installation in industries. Construction of different types of batteries and electrolytes used in it, he shall able to prepare and repair batteries in workshop, Servicing and repairing of table fan, ceiling fan, exhaust fan, hair dryer, mixer, liquidizer, grinder, water pump, washing machine, AC/DC generator. transformers, electromagnetic clutches and relays used in AC/DC circuit. He shall be able to design prepare HT/CT panel boards used for industries/workshop. Detect fault in different types of AC and DC starter and motor timer used in factories and workshop and take up maintenance of machinery like lathe, machine, milling machine, capstan lathe, CNC machine, Connect different types of measuring instrument on the panel boards. He shall be an expert in hand winding and machine winding of transformers, field coils of DC motors, rewinding of armature stator winding bell/Buzzer/NVC, OLC of DC starter.

Options for employment are: Can work as a Lineman/Wireman/Maintenance Electrician Electrical Supervisor/Electrical Contractor/ Service Technician / Expert Rewinder / Lab Technician / Electrical Maintenance Foreman in Pvt. sector industries and Govt. sector.

Options for self-employment are: He can be a contractor of domestic wiring and industrial wiring and disco lighting in five star hotels. He shall be able to run his own electrical workshop. And take up oil filtration of transformer on lines. Setup own shop for rewinding of different types of AC/DC motors, generator & transformers, Panel board wiring busbar wiring and measuring instrument wiring.

14) Instrument Mechanic (Duration: 4 semesters of six months each)

Course Content: Organization of the Institute, Departments, OSH: Safety precautions to be observed in the trade, Basic hand tools, types, classification use, Measurement & measuring instruments, Precision Measuring Instruments, Element & types of screw threads, tube fitting, Basic electricity Uses of

multimeter, Cells and batteries, Switches, Inductor and capacitor, Generator and motors, Transformers, Electrical measuring instruments, DC instruments, AC instruments, Electro dynamometer applications, Electronics basics, Transistors, Power supply unit, Rectifiers, Voltage regulators, Thyristor devices, Amplifiers: Single Stage Amplifiers, Oscillators, Operational Amplifier, Digital electronics, Logic Circuits, Computer fundamentals, Microprocessors, Instrumentation fundamentals, Motion measurement, Pressure Measurement, Low Pressure Measurement, Flow measurement, Positive Displacement Meters, Electronic flow meters, Level measurement, Electrical method, Temperature measurement, Recorders, Final control elements, Process control systems, PLC basics, HART devices, Networking, Fundamentals of SCADA and DCS, Fundamentals field bus/profibus, Basic pneumatics, Analytical instruments.

Skills Acquired: On completion of the course the trainee can carry out Testing, repairs, overhaul and calibration of various electrical and electronic instruments like Voltmeter, Ammeter, Wattmeter, Frequency meter, Oscilloscope etc. Analog & digital fault finding, repairs and calibration of industrial instruments like Pressure, Flow level & temperature measuring &Recording instruments. Repairs & calibration of Transmitters & Transducers (pneumatic & electronic) like Strain Gauges, Load cell, P to I & I to P etc. Working of process control elements. Programming and Installation of PLC's and SCADA with Microprocessor & Computer Hardware.

Options for employment are: On completion of the course, the trainee shall be able to work as an Instrument Technician in various Industries like Petrochemical, Fertilizer, Chemical, Pharmaceuticals, Power Plants, Power Stations, Water works, Beverage Plants, Defense/Air Force, Confectioneries, and Shipping etc.

Options for self-employment are: The trainee shall be able to set up his own shop to undertake maintenance and repairing of Industrial Instruments and Installation of process control systems in Industry.

15) <u>Mechanic (Refrigeration & Air Conditioning)</u> (Duration: 4 semesters of six months each)

Course Content: Applications and History of Refrigeration and Air conditioning, Occupational Safety & Health, Study of Fitting hand tools, precision measuring tools & their use, Files and drills, Types, specifications, Uses, Sheet metal tools and equipment, Electrical hand tools & measuring, instruments, Introduction to Electricity, Safety precaution and first aid, Simple electrical circuit, A.C. Motor, starters and transformer, Introduction to Electronics, Principles of semiconductors, rectification, Block diagram of computer, Features of Office Package, Introduction to basic, principles of commonly used Welding processes, Welding tools and equipment, Fundamentals of Refrigeration, units and measurements, Heat and Temperature, Types of Refrigeration systems, Study the types of Refrigerator construction, Study the construction of Frost Free (2 or 3 door) Refrigerator, Study the faults, Causes and their remedies of Refrigerator, compressor, motors, condenser, expansion valve and , drier , evaporator, refrigerant, retrofitting, thermal insulation, refrigerator, three door refrigerator, introduction of domestic air conditioning, window/room AC, split AC, split AC (wall mounted), split AC (floor & ceiling mounted), cassette air conditioning, water cooler, visible cooler and bottle cooler, deep freezer, ice cuber, ice candy plant, ice cream plant, cold storage, commercial compressor, water cooled condenser, cooling tower, water treatment, evaporator, expansion valve, central air conditioning, duct, air filters, split AC (ductable), multi split AC, package AC, split package, centralised/industrial air conditioning, direct ex-system, indirect/chiller system, study of humidification & de-humidification, construction, and study of commercial AC plant, automobile AC, construction, working of car AC.

Skills Acquired: On completion of the course, the trainee will be able to Test, repair, overhaul and calibration of various Refrigeration and Air Conditioning systems, Installation, assembly & repair of refrigeration and air conditioning plant. Manufacturing technique of deep freezer, bottle coolers, and air conditioners Gas charging, fabrication work, preventive maintenance of refrigeration system. Installation service and repair and car air conditioning. Trouble shooting and overhaul of compressor plant setup and operation.

Options for employment are: Work as Refrigeration and A/C Technician in Industries and factories like – Chemical, Pharmaceuticals and Beverage plants; Manufacturing units – Godrej, L.G., Blue Star, Voltas; Defense services – as Plant Operator/Mechanic.

Options for self-employment are: The trainee can set up his own: S.S.I. unit – For Deep freezer, Bottle Cooler, Water Cooler; Repairing workshop – Refrigerator and a/c equipment; Ice manufacturing unit, Cold storage on rental basis, Ice-cream/cold drink house, Bottle Filling plant.

16) <u>Electronics Mechanic</u> (Duration: 4 semesters of six months each)

Course Content: Trade introduction, Hand Tools and Electrical Safety, Electrical Basics, Battery /Cells, Electrical components and protective devices, Passive components, Analog Electronic components, Basic Test and Measuring instruments, Electrical and electronic, cables, sockets, connectors, preparation and terminations, Soldering & Desoldering various components, Digital Electronic ICs, Opto Electronic components, Analog electronic circuits, Digital electronic circuits, Wave shaping circuits, Linear Integrated circuits, CRO, Power electronic components, Power electronic circuits, Power supplies, Stabilizers and SMPS, Switching circuits, UPS, PCB preparation, Repair and Design (including SMD components), Microprocessors, Optical fibre cables, components and systems, Electronic Communication basics and Antennas, Basic instrumentation and Industrial sensors, actuators and controllers, PIC microcontrollers, PC Hardware, Computer software, Industrial Electro pneumatics, Digital displays (alpha numeric, LCD, LED), Solar power panels and Equipment, Cell Phones, Telephones & EPABX, PA System, VCD/DVD Players, AM/FM Receivers, TV Receivers (Flat, LCD, LED), Domestic Appliances, Cable TV/ DTH, Security Systems (CCTV), Industrial Wiring and panel building, PROJECT WORK : Electronic control mechanism for Elevator and conveyor belts, Industrial training OR Project work preferably in cross sectoral trades.

Skills Acquired: On completion of the course, the trainee shall be expert in identifying various electronic components mounted on printed circuit board, solder them on printed circuit board using different soldering techniques and detect faults in them. Side by side he/she will get a chance to handle various electronic instruments such as CRO, LCR meter, TV pattern generator etc. and make practical use of them. He/she will get a chance to assemble various electronics circuits such as power supply, timers and other hobby electronic circuits on printed circuit board. Fault occurring in TV's (Television) of various

brands, Audio CD and VCD players. He/she will be introduced to digital electronics branch and various computers software packages such as MS-Word, MS-Excel, Power Point, Internet, e-mail, HTML programming & multi-media.

Options for employment are: Multi-National companies: As Service Engineer, Shop floor technician, and operator in maintenance section; Reputed Government Firms: Telephone Department, Railway Recruitment Board, All India Radio and Doordarshan.

Options for-self employment are: Can start his own firm, where he can undertake repairs of television, video and audio CD players. Can take dealership of reputed electronic firm and start trading business. Can take Electronic Maintenance of various factories. Can start his/her own business in software such as printing, scanning, Internet etc.

17) Draughtsman Mechanical (Duration: 4 semesters of six months each)

Course Content: Importance of safety and general precautions, Nomenclature, Description and use of drawing instruments & various equipment in drawing office, Terms & definitions- polygons and circles, Units of dimensioning, system of, Dimensioning, Method of dimensioning and common features, Planes and their normal, projections, Constructions of different types of scales, their appropriate uses, Definition of Intersection & interpenetration curves, Theory of projection, Principle of isometric projection, Principle and types of oblique projection, Types of perspective projection, Different type of machine screw, Purpose, terms, different types of key, Types of fastening materials, Safety precaution descriptions uses and care of hand tools, Description of measuring tools and hand tools used in forge work, Description of parts of Lathe & its accessories, Brief Description of milling shaping slotting and planning machines, Name and brief description of common equipment necessary for sheet metal work, A.C & D.C Motors, Brief description of internal combustion engines, Types of assembly drawing, Introduction to computer-DOS, windows & Introduction to AUTO CAD, Brief description of different types of pipe joints, Use of gears in transmission of power, Use of cams in industry, Brief description of petrol, diesel and gas engines, Working principle of valves and their description, Structural Steel B.I.S. Specification for rolled sections, Lay out of Machine foundations, General arrangements and of drawing, standard method of drawing, Numbering of drawings and standard parts. Familiarization with B.I.S. 696.

Skills Acquired: After completion of the course the trainee shall be able to sketch and draw the Mechanical and automobile parts drawing and assembly drawings, trace an original drawing on tracing paper, be able to take out the ammonia prints and blue prints, shall have the Computer knowledge to develop and draw the drawings by using AUTOCAD software.

Options for employment are: The trainees can work as a Draughtsman in almost all mechanical and automobile production industries where the designing and drawing departments are maintained; they can work as tracer in state and central Govt. departments, supervisor in small scale industry.

Options for self-employment are: Trainee can take contracts for drawing and tracing work from different industries; Trainee can start an AUTOCAD training center.

18) Draughtsman Civil (Duration: 4 semesters of six months each)

Course Content: Importance of safety and general precautions, Importance of lettering, writing of letters and figures sizes, proportion, etc. as per IS code, Geometrical drawing-definition, construction of plain geometrical figures, Principles, representation and construction of different types of scales, Definition and types of projections. Methods of projection as per IS, Principle of Isometric & Axonometric projection, Perspective projection, Building materials, surveying, Box drawing instrument, Field book types- methods of entry of check lines - its importance, Road: Introduction to roads, general principles of alignment, Indian railways -their gauges, Bridge:-introduction to bridge, introduction of water resources, engineering, Flooring, Masonry tools:, Details of different bonding wall and section according to IS, Introduction to theodolite, temporary adjustment of theodolite, Residential building. Principles of planning, Building Estimating, Familiarization with word processing software, CAD commands and use of different menus of CAD, Drafting, layout and printing of drawing, Architectural Desk top and creating modeling, Project work Isometric view, perspective view; Light tracing, copying, valuation of new and old building.

Skills Acquired: After completion of this course the trainee shall acquire the skill of Planning, drawing, estimating and costing of civil work. Drawing plans by using AutoCAD. Making of 3D models of civil work. Giving lineout at site, supervision of work etc.

Options for employment are: Employment opportunities for trainee from this trade shall be available in Central and State Government Departments as a Draughtsman or Surveyor, Ammonia Printer in Railways, C.P.W.D., Military, TCP, P.D.A., P.W.D. Departments of Irrigation, and Land Survey. Private sector opportunities shall be as Draughtsman, Construction Supervisor with Architect, Civil Engineer and Civil Contractor.

Options for self-employment are: The Trainee shall be able to independently undertake planning, drawing, estimation & costing and supervision of civil construction work. He can set up his own shop to supply Civil Construction materials.

19) Stenography (English) (Duration: 2 semesters of six months each)

Course Content: Shorthand and Computer Application, General English, Office Practice & General Knowledge, Employability Skills, Library/Games and other activities.

Skills Acquired: At the end of the course the trainee shall acquire speed of 80/30 w.p.m. and 100/40 w.p.m. in Shorthand and Typing respectively. He/she shall have thorough knowledge of Shorthand and Computer Application, General English, Office Practice & General Knowledge, Computer fundamentals, Operating Systems MS-WORD, MS-EXCEL, MS-POWER POINT, Windows, Introduction to Networking (LAN, WAN, MAN & Internet), Photo Shop, DTP Page Maker. He/she shall be able to independently operate office machines like Telephone, Computer, Electronic Typewriter, FAX machine, Xerox Machine, Duplicating Machine, Franking Machine, Stamping Machine & Calculator. Skills of Inward, Outward, Filing and Mailing, Drafting letters shall also be acquired.

Options for employment are: Secretary, Stenographer, Computer Operator, Clerk-cum-Typist in Private and Public Sector; Personal Assistant to Government Officers, Executives of Private Companies and Advocates.

Options for self-employment are: Can set up own Typing Institute under self employment Scheme; can take private job orders.

20) <u>Secretarial Practice</u> (Duration: 2 semesters of six months each)

Course Content: Shorthand, Office Practice & Computer Application, Employability Skills, Library/Games and other activities.

Skills Acquired: A trainee after completion of the course can take dictation in Shorthand from Executives at the speed of 100/40 w.p.m. and transcribe it on letter heads/paper by using typewriter or computer at the speed of 80/30 w.p.m. He/she shall be able to handle office correspondence in Government and Private Offices. Maintain office diary of executives and prepare their itinerary/traveling schedules while on tour, can receive and make telephonic calls, using intercoms, answering machines etc. and can attend to inquiries, receive visitors and arranges their appointments with Executives, can handle efficiently and independently different office machines and gadgets like Telephones, Electronic Typewriter, Computer, Xerox Machine, Fax, Duplicating Machine, Calculators, Adding Machine, Franking Machine, etc.

Options for employment are: Trainees who have undergone training under Secretarial Practice trade have multiple job opportunities at par with Stenography trade in the offices of the Government, Judiciary, Legislatures, Public Sector Undertakings, along with trade, commerce and industry.

A Matric(10th) or Intermediate(12th) Pass student can become a Stenographer Grade D, Assistant Sub Inspector (Steno) in various Police Departments, an LDC, Jr. Assistant or Head Constable (Ministerial) and Stenographer Grade C, or Personal Assistant (PA); a graduate with a speed of 100-120 w.p.m. can become Executive Assistant, Sr. Personal Assistant, Private Secretary, Vocational Teacher/Instructor, JTO, Training Officer, Assistant Director (Stenography) in Govt. Departments or a Sr. Stenographer, PS, Judgment Writer/Court Master in judiciary; a graduate with professional competence in Stenography can become Personal or Private Secretary to high executives in Multi-national Corporations, Public Sector Undertakings and Business Organizations with vast promotional avenues; a graduate with a speed of 140 w.p.m. can become Assembly Reporter through direct recruitment in State Legislatures and Parliamentary Reporter (Class I Gazetted) in both Houses of Parliament with a speed of 140-160 w.p.m. in Shorthand with promotional avenues as Dy. Director, Joint Director, Director and Joint Secretary through UPSC Exams.

Options for self-employment are: A professional can get self-employment by setting up own commercial institution, call centre, contractual worker etc. even in the rural or remote areas.

21) Mechanic (Motor Vehicle) (Duration: 4 semesters of six months each)

Course Content: Introduction to the trade, Occupational Safety & Health, Systems of measurement, Hand & Power Tools, Fasteners, Cutting tools, Limits, Fits & Tolerances, Drilling machine, Hand Reamers, Introduction to Heat

treatment, Introduction to Metallic and Non-metallic Coatings, Introduction to Welding Processes, Sheet metal worker's, Basic electricity, Basic electronics, Lathe, Introduction to Hydraulics, Introduction to Pneumatics, Maintenance, Introduction to computer basics, Introduction to Engine, Auto Industry in India, Diesel Engine Basics, Compression-ignition engine components, Spark Ignition engine, Engine Components, Valves & Valve Trains, Description and function of Crank shaft, Description and function of the fly wheel and vibration damper, Engine assembly, Basic cooling system components, Diesel Fuel Systems, Marine & Stationary Engine, Emission Control, starter motor circuit, Study of different major components & assemblies of heavy vehicle, Clutches & Manual Transmissions, Final Drive & Drive Shafts, Automatic Transmissions, Steering Systems, Suspension Systems, Wheels & Tyres -Wheel types & sizes, raking Systems, Antilock braking system & components, Study of Motor Vehicle act Rules & Regulation, Petrol Engine Basics, Intake & exhaust systems, Gasoline Fuel Systems, Introduction to Electronic fuel injection, Introduction to EFI Engine Management, Ignition principles, Charging system, Starting system, Lighting system, Heating Ventilation Air Conditioning, Airbags, Industrial training OR Project work preferably in cross sectoral trades.

Skills Acquired: After completion of Mechanic Motor Vehicle trade course, the trainees shall be an expert in servicing, repairing and major overhauling of motor vehicle like Scooter/Motor Cycle, Cars, Trucks and Buses, etc. Maintain all types of vehicles by attending to periodical maintenance work of suspensions, transmission, brakes, steering work, basic electrical and electronic work, etc. Fault diagnosis in petrol/diesel engines including MPFI engine, engine fitted with turbocharger, engine scanning, car A/C system and different relay operations, Road testing of vehicle for fault finding.

Options for employment are: Work as a Mechanic in reputed workshop/service center; Work as a Driver

Options for self-employment are: Start his own workshop/ Service Station, Spare Parts Shop, Tyre, Tube repair shop, Battery repair shop. Can work as an Auto Electrician

22) Hair & Skin Care (Duration: 2 semesters of six months each)

Course Content: Personality development and anatomy, qualities of a good beautician, attitude/posture, communication for success, infection control, anatomy and physiology, yoga and dietetics, skin care, eye brow ,shaping/ bleaching, superfluous hair removal, manicure and pedicure, hair care hair styling, different asanas, balanced diet, conservation of nutrients while cooking, endocrine system, anatomy of facial and neck muscles, massage, facial, make up, hair cutting, hair coloring, perming, industrial visits (minimum five) or project work.

Skills acquired: (i) Hair Care Skills: Permanent hair straightening, temporary hair straightening, perming, roller setting, waxing, threading, hair sticking, hair cut techniques, hair styles according to dress and occasion, shampooing, hair treatments, magic of hair colour& hair dyes; (ii) Skin Care skills: French manicure, plain manicure, pedicure, pimple treatment, high frequency treatment, different types of facial, preparing mehendi cones, mehendi designs, bridal makeup, hands and arms beautifying, exercises for cellulite, ear piercing, sanitation and sterilization of implements.

Options for employment are: Beautician in the Beauty Parlours in India and abroad; Beauticians or Hairdresser in the Film Industries; Instructors in the gymnasium and Health fitness center/club; Councilor on Beauty Care.

Options for self-employment are: Open beauty parlour. Offer Hair & Skin treatment & Bridal makeup and dressing at home, Mehendi designing and preparation of herbal cosmetic products. Organize fashion shows.

23) <u>Craftsmen Food Production (General)</u> (Duration: 2 semesters of six months each)

Course Content: Importance of kitchen & catering establishment Aims & Objective of Cooking, Knowledge of General Safety, Occupational health and hygiene, classification of raw materials, preparation of ingredients, method of mixing foods, effect of heat on various foods, weighing and measures texture of food, Culinary terms Layout of the Kitchen, Method of cooking, various ways of cooking eggs, effect of heat on different vegetables, Larder organization Classification of Horsdoevure & salads Fish classification, butchery, poultry& Assembling of cold, buffets, Theory of bread Making Bread rolls, Prevailing food standards in India, Industrial Training or Project work preferably in cross sectional trade.

Skills acquired: On completion of the course the trainee prepares, seasons and cooks soups, meats, vegetables, desserts and other foodstuff for consumption in hotels, restaurants and other establishments. Fries, boils, broils, roasts or steams vegetables, meats, fish and other food to prepare dishes listed on the menu and prepare salads sandwiches, cakes fruits, juices and other cold foods. Supervises, prepares vegetables and other foodstuff for cooking. Also supervises dish washing, etc.

Options for employment are: Top five & three star hotels and resorts in India and abroad. Flight/Railway catering, restaurants, fast food and pizza joints, Cruise liners, corporate catering companies.

Options for self-employment are: Can start their own unit of catering for wedding parties etc. & can have a self owned restaurant.

24) Steward (Duration: 2 semesters of six months each)

Course Content: Introduction to the Food Industry in India, Types of Restaurants & their characteristics, Environmental Factors Influencing Food Service operation, Functions of Food & Beverage Department, Familiarization about Various types of equipments used in the restaurant and bar & their operating, Handling, upkeep a polishing of Silver, Cattery, glassware and Crockery, Handling, upkeep a polishing of Silver, Cattery, glassware and Crockery, Break Fast, Brunch Et afternoon Tea, Room Service, Order Taking & Billing Methods, Function Catering, Non Alcoholic Beverages, Introduction to wine, Food and wine harmony, Introduction to Spirit and Liqueurs, Cocktails Et Mock tails, Tobacco.

Skills acquired: On completion of the course the trainee serves food, snacks, and beverages to customers, guests in hotels, bars and restaurants. Sets the table with clean linen, condiments, containers, glasses, menu card and obtains orders from customers. Collects food, beverages, snacks, etc. from kitchen according to

customer order and serves them; waits on customer periodically for additional requirement of food, etc. Removes plates, cups, saucers, etc. from table and presents bill to customers: Collects cash and hands it over to cashier.

Options for employment are: Hotels, motels, resorts, airlines, travel agencies, catering companies, clubs, cruise ships, bars, fast food, casinos, etc.

Options for self-employment are: They can start their own restaurant, bar and catering establishment.

25) Mechanic (Diesel) (Duration: 2 semesters of six months each)

Courser Content: Introduction to the trade, Occupational Safety & Health, Systems of measurement, Hand & Power Tools, Fasteners, Cutting tools, Limits, Fits & Tolerances, Drilling machine, Hand Reamers, Introduction to Heat treatment, Introduction to Metallic and Non-metallic Coatings, Introduction to Welding Processes, Sheet metal works, Basic electricity, Basic electronics, Lathe, Introduction to Hydraulics, Introduction to Pneumatics, Maintenance, Introduction to computer basics, Introduction to Engine, Auto Industry in India, Diesel Engine Basics, Compression-ignition engine components, Spark Ignition engine, Engine Components, Valves & Valve Trains, Description and function of Crank shaft, Description and function of the fly wheel and vibration damper, Engine assembly, Basic cooling system components, Diesel Fuel Systems, Marine & Stationary Engine.

Skills acquired: On completion of the course the trainee becomes a mechanic for maintaining all diesel vehicles in reputed workshops. He shall be able to work on all vehicles, earth movers, stationery engines (industrial) and marine engines. He shall be able to work as Engine Operator and oilman on ships, trawlers and barges. He shall be able to work as Machine Operator in an engine workshop. He can handle repairs & maintenance of all types' engines. He will be able to work as Calibration Machine Operator for fuel systems of diesel engines.

Options for employment are: Work as a Mechanic in reputed workshop/Service Centre; Work as a Driver.

Options for self-employment are: Start his own workshop, Service Station, Spare Parts Shop; Tyre, Tube repair shop, Battery repair shop; Can work as an Auto Electrician.

26) Welder (Gas & Electric) (Duration: 2 semesters of six months each)

Course Content: Importance of Welding in Industry, Safety in Manual, Metal Arc Welding, Oxy-Acetylene Welding and Cutting, Arc and Gas Welding Equipments, tools and accessories, Various Welding Processes and its applications, Arc and Gas Welding terms and definitions, Types of welding joints, Oxy-Acetylene cutting Equipment, principle and application, Common gases used for welding, Arc welding power sources, Welding positions, Arc length, Acetylene gas Purifier, Oxygen and Acetylene, gas cylinders, Arc blow, Electrode, Introduction to CO2 welding, Advantages of CO2 welding, Wire feed system, Classification of steel, Submerged arc welding process, Thermit welding process, Laser beam welding , Types of welding defects, Types of Inspection methods, Welding codes and standards.

Skills acquired: On completion of initial course in general welding, the trainee shall be an expert in Electric arc welding, gas welding, CO2 MIG welding. He shall also be an expert in plasma cutting and gas cutting. On completion of next six months, the trainee would be expert in TIG/MIG or Pipe welding.

Options for employment are: Electric arc welder; Gas Welder; CO2 MIG Welder; TIG welder; Gas Cutter; TIG/MIG welder; Pipe welder.

Options for self-employment are: Can setup own fabrication workshop, Steel furniture workshop.

27) <u>Carpenter</u> (Duration: 2 semesters of six months each)

Course Content: Introduction to the general safety, Saw and the Plane, Introduction to timber, Hand tools, Workshop appliances, Framing Joints, Dovetail joints, Seasoning of Timber, Holding tools, Striking tools, Hand Tools and portable power tools - curve cutting saws, Wood working machines, Basic pattern making work, Core and core prints, Common Sheet Metal Tools, basic principle of repairing work and repairing technique.

Skills acquired: On completion of the course the trainee acquires the skills of marking, joining, fitting, assembling, finishing, turning and all other woodworking machine work. Thereafter the trainee is able to do marking of and making any furniture works, as per the drawing such as cabinetwork, house, hotel furniture, etc.

Options for employment are: Wood Craft Technician in any woodwork Industries or in any Government department for one/two years and can get a job in PWD, MPT, Military, Nehru Science Centre, Zuari furnitures, Gautier furnitures etc.

Options for self-employment are: They can earn more by starting a small carpentry workshop. It is a highly valuable way of earning by manufacturing different types of furniture and also giving employment to those who are unemployed skilled workers.

28) <u>Wireman</u> (Duration: 4 semesters of six months each)

Course Content: Scope of the trade, introduction to electricity & safety precautions, common hand tools, classification of electrical materials, basic electrical terms, work, power & energy, electrical measuring instruments, introduction to fitting work, introduction to carpentry work, introduction to sheetmetal work, computer awareness, office package & internet, common electrical accessories, electrical basic circuits, domestic wiring - methods, installation & testing, earthing, planning, estimation & costing of wiring, industrial type common hand tools, industrial wiring commercial wiring, industrial wiring installations, planning, estimation & costing- preparation of layout for domestic, commercial & workshop electrical installation, magnetism & electromagnetism, d.c. generators, motors & starter, A.C. fundamentals, $1- \emptyset & 3\emptyset$ circuits, A.C. generators, motors & starters, power wiring for dc & ac motors, transformers, overhead lines & distribution of lt power, substation equipments, types of substations - indoor, outdoor & pole mounting, U.G. cable, batteries-types, testing & maintenance.

Skills acquired: On completion of course, the trainee will be expert in industrial and domestic wiring, rewinding, fractional HP motors. Repair of electrical

equipment and machinery. Installation and maintenance of overhead lines. Fault finding in machinery like lathe machine, drilling machine used in workshop and factories. Servicing and repairing of Table fan, ceiling fan, exhaust fan, Hair dryer, mixture liquidizer, Grinder, Water pump, washing machine, geyser, heater; A.C./D.C. circuit. Estimate cost of different types of wiring used in domestic and industrial wiring. Work on different types of insulators, earthing used in substation, power station, lighting arrestor, reactor etc. He shall be able to prepare HT/CT panel boards designing of panel boards used for industry/work shop. Fault finding in different types of A.C. and D.C. starter motor used in factories and workshops. Connection of different types of measuring instruments which is available on panel board etc. used in factories and workshops. Assembling and repairing of different types of lamps used in electrical workshop and factories. Expert in hand winding and machine winding of transformers, field coils of D.C motors, rewinding of Armature, stator winding, electric bell/buzzer N.U.C., O.L.C., of DC starter etc.

Options for employment are: Can work as a lineman/Wireman/Wireman supervisor/Wireman sub contractor/ contractor/ Technician Wireman in Govt. Sector/Pvt. Sector.

Options for self-employment are: He may be a wiring contractor, wiring supervisor, Wireman in domestic and industrial wiring; he can run his own electrical workshop for rewinding traditional H.P. motors, repairing electrical equipment & machinery.

29) <u>Plumber</u> (Duration: 2 semesters of six months each)

Course Content: Occupational Safety & Health, Fitter's common hand tools, Method of using drills, Description and uses of Carpenter's hand tools, Description of different types of locking and fastening devices, Gas welding, Masons hand tools, Description of plumber tools and equipments. Description of drains man-holes, Laying out of humed and asbestos pipes, Description of various joints, Description of Plumber's materials, Advantages of template, Method of dismantling, Advantages of template, Method of bending pipes, Method of dismantling, Erecting rain water and drainage pipe system, Domestic drainage system, Corrosion - causes and remedies.

Skills acquired: A trainee shall be able to pay out and install different types of pipes for water supply and drainage, sanitary fittings like wash basin, shower, sink, water closet, urinals using waste and soldering, brazing, gas welding, carpentry and masonry work related to plumbing. Repairing, cleaning and maintenance of valves, cocks and plumbing fixtures. Installation of copper pipes for water, oil and gas. Installation, repairing and maintenance of pumps. Design and construction of chamber and septic tank. Estimation of materials requirement and its cost of plumbing.

Options for employment are: Plumber in Government departments/PWD, Star hotels, Industries, etc.; Pump Operator, Plumbing Supervisor and Pipe Fitter in Ship industries and oil refineries.

Options for self-employment are: Plumbing contract for domestic and industries; Establish Hardware shop; Maintenance contracts of domestic lines and industrial lines.

30) <u>Cutting & Sewing</u> (Duration: 2 semesters of six months each)

Course Content: Knowledge of General Safety, Occupational health and hygiene, Familiarization & handling the tools, Lock Stitch Sewing Machine, Stitch Formation, Trouble Shooting, Measurement, Sewing Machine Needles, Fabric Fundamentals, Yarn, Button Holes, Smocking, Pleats, Fabric Designs, Fabric Terminology, Casing, Zippers, Collars, Sleeves, Employability Skill.

Skills acquired: On completion of the course the trainee can independently stitch baby garments, zablas, baby sets. Stitch girl's track, Skirts, Blouse, ladies skirt, school uniforms, etc. Stitch sari blouse, plain sari blouse with yoke, three pieces and five pieces katori, sari petticoat, nighty. Stitch boy's shirt and half pant, school uniform, gent's shirt, half sleeve and full sleeve shirt, kurta and pyjama. Stitch chudidar dresses, ladies tops and pant. Stitch wedding gowns, latest fashion beads and sequence work. Make alterations.

Options for employment are: The trainee can be employed in Tailoring Industry, Tailoring Shops, Hospitals, Jails, Defence Forces, and Film Industry as a Tailor.

Options for self-employment are: The trainee can set up his own tailoring shop for stitching ladies and gents garments.

31) Hospitality Management (BBBT) (Duration: 1 Year)

Skills acquired:

- a) **Food Production**: On completion of the course, the trainee will know to prepare stocks, soups and sauces, basic knowledge of Indian/Continental/ Chinese cuisine, knowledge of spices, ingredients and other commodities, knowledge of different methods of cooking food and use of latest kitchen equipments and cooking ranges.
- b) **Steward**: To know different equipments used in Bars & Restaurant, different types of Services, table layouts (Ala-Carte, Table-de-Hotel), different types of breakfasts, basic knowledge of wines, spirits, beers and other non-alcoholic beverages.
- c) **House Keeping**: To learn how to use latest cleaning equipment, basic functioning of Laundry, setting of different types of beds, cleaning, polishing and removing stains and maintaining rooms, equipment and hygiene.
- d) **Front Office**: To learn how to receive guests and accommodating, knowledge of different types of rooms, handling different equipment of front office, reservations, booking and ticketing and knowledge of surroundings (Travel & Tourism).
- e) **Basic Computer Applications**: To learn knowledge of Computer fundamentals, opening of files and folders, knowledge of Internet, E-mail and Fax, knowledge of Visual Aids & Website, Multi Media concepts and printing, scanning web camera and use of CD writers.
- f) Maintenance (Electrical & Plumbing):

Basic Electrical knowledge: To acquire knowledge in the method of fixing switches, repairs of minor equipments in the hotels, use of testers, connecting different types of equipments and knowledge of circuit/voltage current and resistance.

Basic Plumbing knowledge: To know how to take up the work of minor repairs of taps and other equipments like geezers, water heaters, showers, bath fittings, etc.

32) <u>Hospitality Management: Advanced Module: Food Production</u> (Duration: 6 months)

Specialized Training in Food Production: To give advance knowledge in the fields of Hotel Management.

Option for Employment: Excellent opportunities in the Hotel Industry, Fast Foods, Air Lines, Cruise Liners, Tourism, etc.

Option for Self Employment: To start own business such as restaurant, Bar, Catering Establishment, Catering for Wedding parties, Other domestic ceremonies, office meeting & conference, etc.

33) <u>Hospitality Management: Advanced Module: Front Office Management</u> (Duration: 6 months)

Specialized Training in Front Office: To give advance knowledge in the fields of Hotel Management.

Option for Employment: Excellent opportunities in the Hotel Industry and Tourism, etc.

Option for Self Employment: To start own business such as restaurant, Bar, Catering Establishment, etc.

34) <u>Hospitality Management: Advanced Module: Food & Beverage Service</u> (Duration: 6 months)

Specialized Training in Food & Beverage Service: To give advance knowledge in the fields of Hotel Management.

Option for Employment: Excellent opportunities in the Hotel Industry, Fast Foods, Air Lines, Cruise Liners, Tourism, etc.

Option for Self Employment: To start own business such as restaurant, Bar, Catering Establishment, Catering for Wedding parties, Other domestic ceremonies, office meetings & conferences, etc.

35) <u>Hospitality Management: Advanced Module: House Keeping</u> (Duration: 6 months)

Specialized Training in House Keeping: To give advance knowledge in the fields of Hotel Management.

Option for Employment: Excellent opportunities in the Hotel Industry, Cruise Liners, Tourism, etc.

36) **Production And Manufacturing (BBBT)** (Duration: 1 year)

a) **<u>PMBT-01: Basic Fitting & Measurement</u>**:

Familiarize with various safety aspects & environmental factor Selection and handling of sophisticated precision instruments and various hand tools. Understand Metrology limits fits and tolerance. Expert in handling of Drilling Machines such as Radial, Pillar type, Bench, Sensitive.

b) PMBT -02: Basic Sheet Metal Work and Welding

Safety precautions and safety device used in Sheet Metal Shop Floor. Operation and maintenance of various Sheet metal tools and equipments such as nibbling machines, Pneumatic Shear, Guillotine shear, Buffing Machine and Presses. Expert hand in handling Arc Welding Machine and setting up of gas welding Plant.

c) <u>PMBT-03: Electrical, Electronics and Computer Skills</u>

Electrical safety, construction of Electrical and Electronic circuits, various Electronics/ Electrical components and their testing. Expert hand in AC and DC motors, Installation and Operation of various operating systems and Computer such as Windows, Linux, etc. Operating Internet and e-mail.

d) PMBT-04 Basic Turning & Grinding

Importance and use of PPE's. Acquire skills in manufacturing of different components on production machine such as Centre Lathe, Universal Cylindrical Grinders, (Internal/ external), Surface Grinders, Lip Grinder, power saw etc which are used for various operations.

e) PMBT-05: Basic Milling and Gear Cutting

Expert hand in operating and maintenance of machines such as Vertical, Horizontal universal Milling Machine and Shaper.

Various Skills acquired are Milling, Slotting, Gear cutting; Shaping, Selection and Handling of precision measuring instruments.

f) <u>PMBT-06: Basic CNC Programming & Operation and Hydraulic &</u> <u>Pneumatics</u>

Expert in CNC Programming & Simulation on Fanuc and Siemens controller of CNCV Milling centre and CNC Turning centre. Operation of CNC Milling centre and CNC Turning centre. Constructions of Pneumatic & Hydraulic circuits using single/double acting cylinder, D.C. Valves, Flow Control Valves etc.

Option for Employment: As Production technician in various Production & Manufacturing company in India/Overseas; As Operator, Programmer, maintenance technician in Auto & mechanical tool industry; As quality control Inspector in manufacturing company; As Entrepreneur in starting own production unit; As Supplier in supply of Tools, Machinery & raw material.

37) <u>Production and Manufacturing - Advanced Module - CNC Machining</u> (Duration: 6 Months)

Skills Acquired: Programming, Operating & Maintenance of CNC Turning Centers & Milling Centers with controllers Fanuc Oi TC, Fanuc Oi MC and Siemens 802D

Option for Employment: CNC maintenance, CNC Operator cum Programmer, CNC Production Technician, CNC sales Executive in India and Abroad.

Option for Self Employment: To start a small scale industry having turning and milling centers; To start training centre for unskilled/ semiskilled workers from manufacturing Industry; To start dealership for Sales, Service and maintenance of CNC.

38) <u>Production And Manufacturing – Advanced Module – PLC & Automation</u> (Duration: - 6 Months)

Skills Acquired: Expertise in identification of valves/components/parts and drawings as per ISO symbol. Development and constructions of various pneumatic, hydraulic, electro-pneumatic and electro-hydraulic circuits. Constructing the ladder diagram on PC and simulating & checking ladder diagram with monitor. Constructing and fault finding in various pneumatic, hydraulic circuits.

Experience of maintenance of high speed fully automated machines with PLC/ Computer Controlled machines. Experience in trouble shooting of electropneumatics & hydraulics.

Option for Employment: Technician, Operation Assistant, Plant supervisor in various Production, Pharma and automobile units in India and abroad.

Option for Self Employment: To start training centre for unskilled/ semiskilled workers from manufacturing Industry in PLC & Automation; To work as entrepreneur, consultant in PLC and automation machine; To start dealership for Sales, Service and maintenance of CNC.

39) Information Technology (BBBT) (Duration: 1 year)

Skills acquired:

a) Module I: Basic Electrical And Electronics

Carry out soldering and de-soldering of electronic components; Identify and test passive and active electronic components; Able to repair linear power supply and SMPS used in personal computers; Maintain rechargeable batteries

b) Module – II: Basic Assembling And Maintenance Of PCs

Carry out routine maintenance of PCs; Identify hardware and software faults in a PC and to troubleshoot; Assemble, upgrade a PC to a given requirement

c) Module – III: Basic Computer Networking

Prepare straight and cross cables, Install wall outlets; Interconnect computers using switch and establish peer-to-peer, client-server connection; Create user's groups and allocate rights and privileges.

d) Module – IV: Basic Office Automation

Create documents, reports, memos, & such required in an office situation including mail merge; Create worksheets for a given requirement, manipulate data and give results; Create PowerPoint presentations; Use Outlook for effective planning and scheduling of day to day work; Create illustrative broachers and pamphlets using PageMaker and Corel draw.

e) Module – V: Basic Internet and Multimedia

Establish internet connection and use internet for getting required information in sending mails, download software from internet; Configure and use outlook

express for sending and receiving mails; Create simple WebPages, simple animations, graphic files and edit

f) Module - VI: Basic Database Processing

Use MS-DOS commands for creating simple batch files; Design a database and create a table for given requirement; Create a query and generate reports; Use visual basic as front-end, Develop simple application using MS-ACCESS & VB

Option for Employment: Excellent opportunities in Electronic Industries, PC Manufacturing Companies, in the field of Installation and maintenance, in the field of networking, Desktop publishing, Data Entry Operator, Web Designing, Database Developer.

Option for Self Employment: To start an own business for the maintenance of electronic goods, Assembling & Maintenance of PC's, Networking; To start a business for Desktop publishing, Web designing, Database Processing.

40) <u>Information Technology - Advanced Module - Repair and Maintenance of</u> <u>Hardware of Computer and Peripherals</u> (Duration: 6 months)

Skills Acquired:

Microprocessors, study of Keyboards, mouse, video Monitors, Printers, Multimedia cards, speakers, Microphones, Model interface, Audio drivers and setup. Study of SMPS and motherboard BIOS and CMOS, RAM, Floppy drive, Hard disk drive. Study of operating system (installation, partitioning & formatting) ,CD ROM Drives, DVD drives Combo drives, installation and minor repairs. Maintenance and repair of ZIP drives, DAT drives, JAZ drives, optical drives. Fault finding and repair of Monitors, Printers, Scanners, Web camera, digitizers, joysticks, etc. Laptop, palm top and Notebook computers.

Option for Employment: Technician for maintenance &Servicing of different hardware Equipments; Hardware Technician-Assembly, Test, Maintenance, Troubleshooting and Quality control; Assistant to System Engineer, Supervisor in hardware Assembly Units; Sales person in Hardware; Faculty members or Lab Assistant in Computer Institute; Start a workshop to carry out repairs of different hardware items.

Option for Self Employment: Start a small scale industry; Setup and maintain Cyber Café.

41) Information Technology - Advance Module - Multimedia and Creative Designing (Duration: 6 months)

Skills Acquired: Working with images in Photoshop, photo editing, producing an image by mixing two or more different images using layer masking and rector marking laying out pages in page maker, working with master pages, threaded and unthreaded text, managing long documents, importing and exporting HTML, building a book, working with coral draw, special text effects, layout and layers, arranging objects, adding and formatting test, linking and navigation, importing and exporting different file formats, using flash editor, saving and uploading, libraries, frame by frame animation, movie explorer, publishing and exporting, planning site and site structure, using dream weaver, working with different tools and panels, linking and navigation, programming with HTML, web page designing using front page, hosting websites.

Option for Employment: Excellent opportunities for working in IT Industries as a Creative Designer; Assistant Programmer in software development firms; Internet Operator in Cyber Café, DTP Operator; Faculty members of Lab Assistant in Computer Institute.

Option for Self Employment: To start own business in web designing; Starting a Computer Institute, Cyber Café.

42) <u>Information Technology - Advance Module - Computer Networking</u> (Duration: 6 months)

Skills Acquired:

Networking concepts-serves and Configurations, Network Operating systems and features. Network Cables and Cabling Techniques-Structures cabling and standards, Network protocols TCP/IP services, Principle Functions & uses of Network Components-Hubs/ switches/Bridges/Routers/Gateways Planning a simple LAN, Upgrading Server Components, Network WAN Infrastructure. Administering Windows Server (basics) Wireless Networking & Network Security Installing Linux Server and Testing & Configuring Novell Server (basics) and Testing.

Option for Employment: Excellent opportunities for working in IT industries, Assistant to Network Engineer, Sales person in Hardware; Faculty members or Lab Assistant in Computer Institute.

Option for Self Employment: To start a own Business in the field of networking; Starting a computer consumable shop, computer institute, Cyber Café.

43) Fabrication (Fitting & Welding) (BBBT) (Duration: 1 year)

Skills Acquired:

Module - I: Basic Fitting & Measurement:

Filing, marking, punching, hack sawing, chipping, drilling, reaming, tapping, boring, individually handle precision measurement instruments and read machine drawing, handle various fitter tools, operate drilling machine, grinding machine, power hacksaw, fabricating of different components and assembling with fasteners.

Module-II: Basic Sheet Metal Work And Fastening:

Familarisation with various safety precautions, identification and use of tools and accessories, marking, cutting sheet metal to different shapes, folding / bending sheet metal, removing dents of spherical and semi spherical articles, Riveting, fastening, seaming, tube bending, making simple railing and door frames, dust pan cover and handle riveting etc.

Module -III: Basic Machine Shop Practice (Turning, Milling and Grinding)

Knowledge of various manufacturing processes, Engine lathe, facing, turning, chamfering, cutting "V" thread, drilling, boring, parting off, knurling, milling on

various milling machines and milling cutters, sharpening of turning tools, grinding, preparation of edges for welding.

Module-IV: Basic Welding:

Familarisation with various safety precautions, identification of tools and accessories used for gas and Arc welding, Setting up gas welding Plant, lighting and adjustment of Oxy- Acetylene flame, Beading practice on MS sheet with and without filler rod, Setting up Arc Welding plant, striking an Arc and depositing straight, square butt joints, Setting up Oxy Acetylene cutting plant and practicing gas cutting on M.S. plate, various joints, Brazing, Soldering, Pipe to Pipe Joints in 1G position, pipe to sheet flange joint.

Module- V: Metals And Surface Finishing Techniques:

Familiarisation with various Industrial safety equipments, identification of various metals, sound test for metal identification, spark test for metal identification, measuring hardness of metals with Rockwell hardness and Brinell hardness testing machine, measuring tensile strength of metals using UM, Impact testing, Operation and control of furnace, temperature measurement instruments, Hardening and Tempering, stress relieving on welded components, identifying various weld defects, Non-destructive testing methods, Dye Penetrant Testing, Magnetic Particle Testing, surface finishing, scrapping, Brush/Dip/Roller/Spray Painting , application of putty, primer, Polishing, Buffing, Phosphating, Powder Coating, dying, Stenciling and Marking, Inspection of paint.

Module-VI: Basic Electrical, Electronics & Computer Skills:

Basic Electrical and Electronics: Study and use of multimeters. Simple wiring practice with distribution boards, junction boxes, main switches two way and intermediate switches. Soldering on PCB, cable joints and aluminum conductor. Crimping of wires. Identification of different parts of DC generators, AC motor and transformer.

Computer skills: Booting the computer, Opening windows menus, using the mouse, refresh computer desktop, create a directory in XP and Linux, format a floppy, create files using notepad, save the files from hard disk to floppy, change control panel setting for display, using windows explorer, install/remove software, add new hardware, knowledge of Internet, E-mail and fax, MS Word, Excel and Multimedia.

Option for Employment: Can work as a Fitter, Sheet Metal worker, Turner, Machinist, Welder, Fabricator, Job assembler, Painter, Quality Personnel in Industry, Ships and garages.

Option for Self Employment: To start a small scale industry in Sheet Metal Fabrication and other Fabricated products; To start a powder coating/ painting unit with metal surface treatment facilities; To start training centre in Welding/ Fabrication for unskilled/ semiskilled workers from manufacturing Industry; To work as consultant for manufacture of jigs and fixture; To start a garage for job work, repairs and maintenance of production machinery.

44) <u>Fabrication (Fitting & Welding)</u> - Advanced Module - TIG/MIG Welding (Duration: 6 Months)

Skills Acquired:

Familiarisation with the machinery used for TIG/MIG welding, safety precautions, various weld joints in different positions, gas welding, gas cutting, plasma cutting, sheet bending to different curvatures, Shielded Metal Arc Welding (SMAW), TIG Welding, root pass welding in plates by TIG in 1G, 2G, 3G and 4G, root pass welding of pipes by TIG in 5G & 6G, pipe flange welding by TIG and ARC, MIG Welding, Submerged Arc Welding, Plasma Welding, Welding Automation, CO2 welding, inspections and testing of weldments, Welding Procedure Specifications (WPS) & Procedure Qualification. Records (PQR), testing of specimens according to codes and standards.

Option for Employment: Can work as Welder, Fabricator, Job assembler on ships, workshops and garages.

Option for Self Employment: Can start small scale industry in sheet metal fabrication and other fabricated products; Can start a training centre in welding / fabrication for unskilled / semi-skilled workers from manufacturing Industry; Can work as consultant for manufacturing of jigs & fixtures; Can start own garage for job work, repairs and maintenance of production machinery.

45) Fabrication (Fitting & Welding) - Advanced Module - Pressure Vessel and <u>Pipe Welding</u> (Duration: 6 Months)

Skills Acquired:

Familiarization with the Machinery, Arc Welding, Gas Cutting, Gauging, Weld Joint, Preparation, Edge Preparation, Welding Fixtures & Clamps, Selection of Electrodes, Groove Welding on the plates in 3G & 4G Position, Uphill Welding, Downhill Welding & Horizontal Welding, Pipe welding in different Positions, Root Welding of Pipes, Inspection & Clearance using LPI Testing, Welding Heavy Wall Pipes in 6G Positions, Welding Symbols, Pipe & Plate, Flange Joint Welding, T & Y Pipe Joint Welding, Beading Practice by TIG on MS Sheet, Root pass Welding of Plates & Pipes in all Position by TIG, CO2 Welding, Automatic Submerged Arc Welding, Inspection of Weldments, WPS & PQR, Weld Test Specimen on Plates & Pipes according to Codes & Standards.

Option for Employment: Can work as Welder, Fabricator, Job assembler on ships & pressure vessels manufacturing Industry, Workshops, Pharmaceutical Industry & Hotel Industry.

Option for Self Employment: Can undertake the Consultancy, can set up Workshop for repairs & Maintenance of Pressure Vessels, can undertake Job-Work in Industry, Pharmaceutical Industry & Hotel Industry for Pipe Welding, Erecting Shades & Structures.

46) Fabrication (Fitting & Welding) - Advanced Module - Welding Inspection and Testing (Duration: 6 Months)

Skills Acquired: Handling various measuring instruments, identification of material, markings, TIG /MIG welding, SMAW, Co2 welding, pipe joints, plate joints, various destructive and non-destructive testing of metals, Brinell Hardness Testing, Rockwell Hardness Testing, impact testing, bend testing of weldments, Universal Testing, Dye penetrant testing, Magnetic particle testing, Evaluation of welding using Ultrasonic Flaw detector, Study of IIW/ASTM reference radiograph, interpretation of radiographic films, X rays, gamma rays, radiation hazard and control, certification methods for welding inspectors, codes and standards for welding inspections, various welding codes, WPS, PQR.

Option For Employment: Can work as quality Control personnel in any Fabrication Industry and Government workshop, Inspection laboratories; Can work in Industry for checking incoming raw material, in process material and finished goods.

Option For Self Employment: Can work as a quality consultant, can undertake contract of quality testing of material for checking incoming raw material in process material and finished goods in Manufacturing Industry & Workshop, can set up own Quality Control Lab for Welding Inspection.

47) <u>Automobile (BBBT)</u> (Duration: 1 Year)

Skills Acquired:

Module-I: Basic Fitting & Measurement

Identify and use marking and measuring tools, cutting tools, work holding devices in Fitting Shop, Micrometers, height gauge, dial bore gauge, telescopic gauge. File the surface to the accuracy of ± 0.1 mm Tap the hole manually and by machine, Remove broken studs and bolts from the holes using stud extractor.

Module II: Basic Sheet Metal & Welding

Identify and use tools and equipment used in sheet metal working and welding following safety precautions. Make simple riveted joints, simple welding joints in horizontal and vertical positions by arc welding. Do brazing, soldering on sheet metal, perform basic skills of sheet metal working and welding.

Module III: Basic Electrical & Electronics

Make joints on conductor and solder joints, Simple maintenance of batteries, Build circuits with thyristors and transistors.

Module IV: Basic Microprocessor & Computer Operation

Identify Microprocessor controlled systems in Automobiles, Understand Computer Fundamentals and its parts, Using Windows and DOS operating system and working in MS Word and Excel.

Module V: Basic of Petrol & Diesel Engine

Dismantle and assemble 2 and 4 stroke petrol engines, Dismantle and assemble 4 stroke diesel engines, Tuning of engines.

Module VI: Basic Of Transmission, Suspension, Steering System & Brakes

Understand the working of mechanical, hydraulic and pneumatic brake system, Understand the working parts of hydraulic and pneumatic system, Adjust and bleeding of hydraulic brake.

48) <u>Automobile - Advanced Module - Servicing & Overhauling of Automobiles</u> (<u>Petrol</u>) (Duration: 6 Months)

Skills Acquired: Dismantle and reassembly of various Petrol engines, overhauling of Petrol Engines, Preventive maintenance of Petrol engine vehicles. Driving practice on Motor car / LCV and issue of Licence from competent authority.

49) <u>Automobile - Advanced Module - Servicing & Overhauling of Automobiles</u> (Diesel) (Duration: 6 Months)

Skills Acquired: Complete overhauling of Diesel Engine and performance testing, checking and repairing of different systems of Diesel engine vehicles. Trouble shooting in clutch, Gear box, fuel injection system, brake system etc. driving practice on Motor Car/ LCV and issue of Licence from the competent authority.

50) <u>Automobile - Advanced Module - Auto Electrical Electronics & Air</u> <u>conditioning in Automobiles</u> (Duration: 6 Months)

Skills Acquired: Automobile wiring systems. Different Electrical systems used in Automobiles, Electronic Ignition system, engine scanner, electronic control module, sensors and actuators, maintenance of batteries, automobile Air conditioning system etc.

51) Automobile - Advanced Module - Overhauling of Fuel Injection System & Steering Mechanism (Duration: 6 Months)

Skills Acquired: Fuel injection pumps, injectors, phasing and calibration, sterring geometry, dismantling and assembling of steering gear box, checking Toe in Toe out, Camber & caster angle, Multi point Fuel injection system etc.

52) <u>Automobile - Advanced Module - Denting, Painting & Welding</u> (Duration: 6 Months)

Skills Acquired:-Practice on Gas welding, Gas brazing, Gas soldering, Arc welding, MIG/MAG Welding, TIG Welding, Resistance spot welding, Plastic welding etc. Body construction of Automotive repair and different painting process.

53) <u>Electrical (BBBT) (Duration: 1 year)</u>

Skills Acquired:

Module I: Basic Engineering Skills

Use different type of tools used for carpentry, fitting, drilling, and plumbing etc, Perform soldering & brazing etc., Make sample sheet metal articles, Cut conduit pipe and make threading on it.

Module II: Basic Electrical Engineering

Wire & test simple electrical circuits, in different types of wirings with suitable controlling & protective devices, observing I-S Standards & I.E rules, Define &

measure electrical quantities like voltage current resistance power & energy using appropriate & different instruments like voltmeters, ammeters, multimeter, watt meters, etc. Test wiring installation for insulation resistance faults-using appropriate instruments & Rectify faults. Test, charge & door outline maintenance of different types of batteries. Define Magnetism, Electromagnetism, and magnetic field etc. Check a capacitor and identify the HT & LT winding of transformer and able to find output of transformer. Testing of contactors & alarm circuits.

Module III: Basic Electronics

Use the hand tools correctly & safely. Use wire gauge, feeler gauge, read colour code of resisters etc., Capacitors, verify ohms law, series, parallel connections etc., voltmeter, ammeter, ohm meter & multimeter correctly, observing safety precautions in handling them. Use of wheat-stone bridge, LCR bridge to measure L C & R Solder wires on PCB, using proper soldering iron of different wattages correctly. Identify & test HF, AF coils, wind small coils & test them. Read data book for semiconductors, connect them properly in circuits, plot characteristics. Use of oscilloscope, signal generator, transistor tester etc. Trace circuit diagrams & interpret circuit diagrams.

Module IV: Basic Electrical Wiring & Winding

Understand different types of wiring, i.e. Rules, cable joints, soldering, etc. Testing and installation for motors. Understand the procedure of batten wiring system, casing capping wiring system, conduit pipe wiring system for domestic & industrial, fault tracing in various wiring system. Re-wind a transformer/simple motor of small size. Understand different types of AC/ DC Windings of motors & transformers.

Module V: Basic Power Generation, Transmission & Distribution

Work on various sources of power generation. Erect the transmission of different voltages. Find faults in transmissions lines. Install circuit breaker / switch gear. Test and replace the safety measures of transforms. Install and find faults in different types of distribution systems.

Test relays in various protection schemes. Test and maintain power & distribution transformer.

Module VI: Basic Computer Operating Skill & Its Application

Have operational skill of computer, To enter data, prepare bills, prepare tool list etc.; Download information from internet. Draw electrical layouts, drawing, wiring diagrams, Simulate simple electrical circuits

Option for employment: Can be employed in various factories, Companies because of the Multiskill knowledge. Also they can be absorbed by the Government or Semi Government as lineman, Wireman, Electrical Supervisor, Service Technician, Lab Technician, Electrical Maintenance Foreman etc.

Option for Self employment: The trainee passing out can become a contractor of domestic and industrial wiring, will have the knowledge of designing and erecting of panel boards; Can set up own shop for rewinding different types of AC/DC Motors, generators, transformers etc.

54) <u>Electrical - Advanced Module – Repair & Maintenance Of Domestic</u> <u>Appliances</u> (Duration: 6 Months)

Skills Acquired:

Working principle, construction and fault finding of Electrical appliances such as, Fan, Oven, Washing machines, Vacuum cleaners, Dish washer, Microwave oven, Geyser, Water pumps, Automatic water level controller, Various control devices, MCBs,

55) <u>Electrical - Advanced Module – Operation & Maintenance of equipments</u> <u>used in HT, LT, Substation and Cable jointing</u> (Duration: 6 Months)

Skills Acquired:

Cable jointing procedures, Operation and maintenance of equipments used in transmission lines and Sub-station. Maintenance of Transformer equipments, circuit breakers, electrical measuring instruments, installation of fuses in LT & HT lines.

56) <u>Electrical - Advanced Module – Repair & Maintenance Of Electrical</u> <u>Machine And Power Supply</u> (Duration: 6 Months)

Skills Acquired:

Repair and maintenance of active and passive components, measuring instruments, Rectifiers and fuses, CRO, Voltage stabilizers, voltage regulators, relays and protection circuits, Invertors, Battery chargers, on-line, off-line UPS, CCTVs, SMPS, Power control circuits, motor control circuit etc

Short-Term Courses Offered at the ITIs vis-à-vis their Employment Opportunities:

1) **<u>Data Entry Operator</u>** (Duration: 6 months)

Skills Acquired: Computer Fundamentals; Operating System - DOS, Windows; MS Office like Word, Excel, PowerPoint, Access; PageMaker; Tally; LAN; Internet; Data Entry Practice; Practice on Printer & Scanner.

Option for Employment: Work as an Accountant, Data Entry Operator or Computer Operator in Industry, Offices, etc.; Internet Operator in Cyber Café; Lab Assistant in Computer Institutes or Schools.

Option for Self Employment: Starting a Computer Institute; Take up data processing jobs.

2) Driver cum Mechanic (Duration: 6 months)

Skills Acquired: On completion of the course, the trainee becomes skilled driver by acquiring complete skills in diving by following norms of driving laid down by transport department from time to time. He will be able to inspect & maintain the vehicle in preliminary stage, locate the faults in the vehicle, carry out minor repairs in the vehicle in case of emergency which saves vehicles to be off the road, drive the vehicle with difference in driving on highways and in city roads. **Option for employment**: He can work as a driver in any workshop, factory or in service centre.

Option for Self Employment: Can start: taxi business; giving tempo on hire business; own workshop; private service centre, driving school.

Subjects to be studied during the Course of Training:

	Craftsmen Training Scheme (Semester Pattern)		
	Engineering Trades	Non – Engineering Trades	
1.	Trade Theory	1. Trade Theory	
2.	Trade Practical	2. Trade Practical	
3.	Workshop Calculation & Science	3. Employability Skills	
4.	Engineering Drawing (Except for	4. IT Literacy	
	D'Man Mech. & D'Man Civil trades)	5. Additional subject related to the trade	
5.	Employability Skills		
6.	IT Literacy		

Center of Excellence (Modular Pattern)		
Basic Broad Based Training		
Engineering Trade	Non-Engineering Trade	
1. Trade Theory	1. Trade Theory	
2. Trade Practical	2. Trade Practical	
3. Employability Skills	3. Employability Skills	
4. Workshop Calculation & Science	4. Additional subject related to the trade	
and Engineering Drawing		
Adva	anced Module	
1. Trade Theory		
2. Trade Practical		
Specialized training to be undertaken in the industry on completion of training under Advanced Module.		

All Goa Inter ITI Sports Meet:

All Goa Inter ITI Sports Meet is organized every year in various disciplines such as cricket, football, volleyball, tenicoit, and athletics (relay, shot put, discus throw) to be participated by the trainees of the government as well as the private ITIs. All these ITIs are grouped into two zones viz. North and South, and the finals are played between the winners of the two zones on the final day of the meet.

Trophies are awarded to the winning team of each event and a 'Certificate of Participation' is awarded to individual participant of the winning teams. Apart from this,
'Director's Trophy' is awarded to the Institute displaying good discipline, sportsmanship, and winning maximum events.

EXAMINATIONS:

Semester/Yearly Exams

Semester pattern examinations would be conducted under the aegis of NCVT for all CTS trades in the month of January and July every year; yearly examinations would be conducted for the trainees undergoing BBBT under CoE in the month of August; and examinations would be conducted at the end of the six months training for the trainees undergoing Advanced Module training. For the remaining six months the trainee would require to undergo Specialized Module training where he/she is assessed for issue of a certificate at the end of the course which would be recognized by NCVT.

The same examination pattern will be followed for the trades under SCVT.

The trainees who fail in semester exams will be given a maximum five additional chances within a period of three years to pass each semester from the date of semester exam wherein the trainee has failed.

Internal Exams:

Internal monthly exams would be conducted in each semester for trades under CTS and Advanced Modules under CoE. Bimonthly exams would be conducted for modules under BBBT.

Marks scored in above exams would be considered for award of sessional marks.

Scholarships:

- 1) Merit scholarships at the rate of Rs. 250/- per month per trainee will be awarded to 40% of the sanctioned strength in each trade at every ITI on the basis of:
 - a) The marks scored for internal tests.
 - b) Assessment of the sessional work, discipline and punctuality three months after admissions.

If the number of trainees in any unit is less than the number of sanctioned seats, the merit scholarships shall be awarded in proportionate number.

- 2) Below Poverty Line (BPL) Scholarship at the rate of Rs. 250/- per month is awarded to the trainees belonging to BPL, SC/ST categories and to the trainees whose family's annual income is less than Rs. 1,50,000/- on the production of an income certificate issued by the competent authority.
- 3) Scholarships are awarded to the ITI trainees by the Department of Social Welfare in the form of Freeships/Scholarships to certain categories of candidates.
- 4) Scholarships are also awarded by the Education Department to the ITI trainees whose parents are teachers.

National Trade Certificate (NTC):

CTS Trades:

On completion of the prescribed period of training in each semester, a trainee would have to undergo trade-testing based on the syllabi of corresponding semester. A marksheet would be issued in each semester to successful trainees and on completion of all semesters a consolidated mark-sheet would be issued by the State Government based on marks obtained in each semester.

Admissions to the next semester would be done without waiting for declaration of the results of the previous semester(s). Five additional chances will be given to a failed trainee within a period of three years to pass each semester.

A NTC would be issued to a trainee securing pass marks in each subject of each semester (as specified by DGE&T in their guidelines issued from time to time) on completion of all semesters by National Council of Vocational Training, New Delhi.

CoE Trades:

On completion of the prescribed period of training, a trainee would have to appear for the final All India Trade Test (AITT) of Craftsmen conducted under the aegis of National Council for Vocational Training (NCVT) and the successful trainees would be initially awarded a Provisional NTC (indicating marks obtained) and later a final NTC by NCVT, New Delhi.

A trainee admitted under SCVT or NCVT would have to undergo examinations under respective council.

The NTC issued by NCVT is recognized globally for recruiting Craftsmen to subordinate posts in public as well as private sectors.

For the trades and units run under the SCVT, the same pattern of examinations and certification as mentioned above would be applicable. However, the exam will be conducted by the State Board of Examinations and the certificates would be issued by the SCVT.

Skill Competitions for Meritorious Craftsmen:

The topper trainees having scored more than 70 % marks in each of the trades from each ITI are eligible to compete at the "All Goa Skill Competition of Craftsmen" organized by the state. The toppers of these competitions are felicitated and awarded merit certificates at a state level function.

However, the toppers of the following fourteen trade courses: Fitter, Turner, Machinist, Electrician, Electronics Mechanic, Instrument Mechanic, Welder (Gas & Electric), Mechanic Motor Vehicle, Cutting & Sewing, Mechanic (Diesel), Computer Operator & Programming Assistant, Draughtsman (Mechanical), Draughtsman (Civil) and Mechanic (Refrigeration & Air Conditioning) are eligible to appear for "All India Skill Competitions of Craftsmen" conducted by the Government of India, Ministry of Labour, DGE&T, New Delhi at various Advanced Training Institutes located at the major cities in the country which helps the trainees display their vocational skills at national level. A merit certificate is awarded to the best trainee in each trade at the State Level Skill Competition and a merit certificate and cash prize of Rs.50,000/- is awarded to the best trainee in each of the fourteen trades at the All India Skill Competition.

POST ITI OPPORTUNITIES

Direct Admissions to Second Year in Polytechnic Institutes

Government of Goa has provided vertical mobility to the ITI passed candidates in pursuing their studies in the various fields corresponding to their trades through the seats remaining vacant in the Polytechnics in the state provided the trainees have passed the qualifying examination i.e ITI certificate after passing S.S.C from Industrial Training Institute in Goa under the State Directorate of Craftsmen Training as per the criteria specified in the Prospectus of Directorate of Technical Education for admission to Polytechnic. The details of seat allotted for ITI trainees are given below:

Sr. No.	ITI Courses	Diploma Courses	Total Seats Allotted for ITI trainees
1.	Computer Operator & Programming Assistant,	Electrical & Electronics Engg.	4
	IT & Electronics System Maintenance, Desk Top	Computer Engineering	8
		Electronics Engineering	6
	Medical Electronics, Electronics Mechanic, Electrician, Instrument Mechanic	Electronics & Communication	8
	Course under CoE ** (2 years):	Medical Electronics	2
	Information Technology, Multi- skilled course in Electrical and Electronics***, Electrical Sector.	Electronics & Instrumentation	2
	Electronics , Electrical Sector.	Electrical Engineering	6
2.	Fitter, Turner, Machinist, RAC Mechanic, Mechanic (Motor Vehicle), Mechanic (Diesel), Draughtsman (Mechanical)* Production & Manufacturing (2	Automobile Engineering	4
	years) course under CoE*, Diploma in Multi-skilled Industrial Technology (Mech.) under SCVT*, Course under Centre of Excellence *(2 years) Fabrication (Fitting & Welding)*, Automobile Sector	Mechanical Engineering	22
3.	Draughtsman Civil	Civil Engineering	16
4.	Stenography (English) Secretarial Practice	Modern Office Practice	4
5.	Hospitality Management (2 years) course under CoE	Hotel Management & Catering Technology.	20
		TOTAL	102

List of ITI trades recognized for eligibility to Diploma courses (Direct Second year)

*To be considered only for Diploma in Mechanical Engineering.

** Eligible for Diploma in Electronics & Communication only.

***Eligible for Diploma in Electrical Engineering / Electrical & Electronics Engineering.

The eligible candidates should report to the Directorate of Technical Education, Porvorim and the Principals of the respective Polytechnics in the State for more information.

Training at Advanced Training Institutes:

Short term courses are conducted at Advanced Training Institutes located in the major cities of the country and functioning under Government of India wherein the candidates can specialize in various advanced industrial skills. More information in this regard can be obtained from the Principals of the ITIs or in the Training section at the Head Office.

Apprenticeship Training in Specified Industries:

Trainees from Industrial Training Institutes on completion of their trade courses under NCVT are eligible to be engaged as Apprentices in various establishments covered under the Apprentices Act, 1961. Such trainees are given full rebate for the period spent in Industrial Training Institutes and are required to undergo training in specified establishments only for the remaining period of apprenticeship in the corresponding trade. Trainees so engaged in the establishments get a minimum stipend of Rs.1490/- (in the process of revision). Mere completion of ITI course (under NCVT) does not guarantee an ITI pass-out admission in Apprenticeship Training without possessing the required entry qualification.

Trainees passing out from the trade courses covered under the SCVT can also be engaged for Apprenticeship Training and get a rebate as indicated in notification published by Govt. of India, provided they possess the required minimum entry qualification.

At the end of the prescribed course of Apprenticeship Training, the apprentices have to appear for All India Trade Test of Apprentices conducted by the Government of India, New Delhi under the aegis of National Council for Vocational Training. Candidates passing this examination are awarded with National Apprenticeship Certificate.

ADDITIONAL CERTIFICATE COURSES UNDER DGE&T

Skill Development Initiative (SDI) Scheme under Modular Employability Skills (MES):

To provide vocational training to school drop-outs, existing workforce, ITI graduates, etc. by optimally utilizing the infrastructure and space available in Govt. and Pvt. ITIs, and to improve their employability prospects, Govt. of India has launched a scheme called "Skill Development Initiative Scheme".

This scheme provides for assessment of skills already possessed by the candidates who have no formal certification in their area of specialization. This is referred to as "Direct Assessment".

The scheme also provides for Training cum Assessment (TCA) of candidates desiring to undergo the short term training enlisted under the scheme.

The assessment of these candidates is done by assessing bodies appointed by Govt. of India. The tuition and assessment fees of successful pass-outs are reimbursed to them as per the guidelines of the scheme. Further details about the scheme may be obtained from the respective ITIs.

Sr.	Trade	Duration	Minimum Educational Qualification
No			
1	Data Entry Operator	6 months	Passed 10 th std.
2	Driver cum Mechanic	6 months	8 th class passed under 10+2 system of
	(Light Motor Vehicle)		education or its equivalent.
			Age: Minimum 18 years as on 1.08.2013.

Short Term Courses

ADMISSIONS

Notice by DGE&T Government of India Ministry of Labour & Employment Directorate General of Employment & Training Shram Shakti Bhavan, Rafi Marg, New Delhi - 110 001.

FOR ATTENTION OF ADMISSION SEEKERS TO NATIONAL COUNCIL FOR VOCATIONAL TRAINING (NCVT) APPROVED TRADES IN GOVT & PRIVATE ITIS

All admission seekers to NCVT approved trades (Engineering/Non-Engineering) are advised in their own interest to confirm and satisfy themselves before seeking admission to any trade that the respective trade/unit in the Government/Private Industrial Training Institute (ITI) is affiliated to NCVT. Only the trainees seeking admission to the trade/unit which is found to be affiliated under NCVT as on the date of admission are eligible to appear for the All India Trade Test under NCVT and to be awarded with National Trade Certificate.

The list of affiliated trades/units in each Institute is available in the respective Institute and the State Directorate.

It is also informed in the interest of general public that NCVT/ Govt. of India does not recognize any Govt. and Private Industrial Training Institute. NCVT affiliates only the trades and its units run by a particular ITI.

NO ADMISSION IS ALLOWED IN NCVT TRADES WITHOUT AFFILIATION.

Director of Training/ Secretary NCVT

Availability of Seats

The number of seats available and trades offered at various ITIs for the year 2013-2014 are shown in Annexure I to IV.

Trade Details and Eligibility Criteria for Admissions

Trades Under CTS:

Engineering Trades:

Sr.	Trade	Duration	Minimum Educational Qualification	
No			The second secon	
1.	Information	2 years	Passed 10 th class examination	
	Technology &	(4 semesters)		
	Electronics System			
	Maintenance			
2.	Fitter	2 years	Pass in 10 th class under 10+2 system of	
		(4 semesters)	education.	
3.	Turner	2 years	Pass in 10 th class under 10+2 system of	
		(4 semesters)	education.	
4.	Machinist	2 years	Pass in 10 th class under 10+2 system of	
		(4 semesters)	education.	
5.	Electrician	2 years	Pass in 10 th class under 10+2 system of	
		(4 semesters)	education.	
6.	Instrument Mechanic	2 years	Pass 10 th under 10+2 Scheme.	
		(4 semesters)		
7.	Mechanic	2 years	Pass in 10 th class under 10+2 system of	
	(Refrigeration & Air	(4 semesters)	education.	
	Conditioning)	(
8.	Electronics Mechanic	2 years	Passed 10 th class examination under 10+2	
		(4 semesters)	system	
9.	Draughtsman	2 years	Passed 10 th class	
	(Mechanical)	(4 semesters)		
10.	Draughtsman (Civil)	2 years	Passed 10 th class	
		(4 semesters)		
11.	Mechanic (Motor	2 years	Pass in 10 th class under 10+2 system of	
	Vehicle)	(4 semesters)	education	
12.	Wireman	2 years	Pass in 10 th class under 10+2 system of	
-		(4 semesters)	education	
13.	Mechanic (Diesel)	1 year	Pass in 10 th class under 10+2 system of	
		(2 semesters)	education	
14.	Welder (Gas &	1 year	Pass in 8 th class	
	Electric)	(2 semesters)		
15.	Carpenter	1 year	10 th Pass	
	r	(2 semesters)		
16.	Plumber	1 year	Passed 10 th class with Maths and Science	
10.	1 10111001	(2 semesters)		
i		(2 5011050015)		

Non-Engineering Trades:

Sr. No	Trade	Duration	Minimum Educational Qualification
1	Computer Operator & Programming	1 year (2 semesters)	Pass in 10 th standard under 10+2 system

	Assistant		
2	Desk Top Publishing	1 year	Pass in 10 th standard under 10+2 system
	Operator	(2 semesters)	
3	Stenography (English)	1 year	Passed 10 th class examination
		(2 semesters)	
4	Secretarial Practice	1 year	10 th class pass with 50% or higher marks in
	(English)	(2 semesters)	English subject (Relaxable by 5% for
			SC/ST)
5	Hair & Skin Care	1 year	10 th class pass under 10+2 system of
		(2 semesters)	education or its equivalent
6	Craftsmen Food	1 year	Pass in Matriculation examination or
	Production (General)	(2 semesters)	equivalent
7	Steward	1 year	Pass in 10 th class
		(2 semesters)	
8	Cutting & Sewing	1 year	8 th class pass under 10+2 system
		(2 semesters)	
9	Data Entry Operator	6 months	Passed 10 th standard
		(1 semester)	
10	Driver cum Mechanic	6 months	8 th class passed under 10+2 system of
		(1 semester)	education or its equivalent.
			Age: Minimum 18 years as on 1.08.2013

Trades under COE:

Sr.	Trade	Duration	Minimum Educational Qualification
No			
At A	ltinho, Panaji & Canacona Gov	t. ITI	
1.	 Hospitality Management Broad Based Basic Training With the following modules:- a) Basic Food Production b) Basic Food & Beverage Service (Steward) c) Basic Front Office Service Operation d) Basic Accommodation Operation/Housekeeping e) Basic Computer Application f) Basic Hotel Maintenance (including Plumbing & Electrical Maintenance) 	1 year	10 th pass under 10+2 system
2.	 <u>Hospitality Management</u> <u>Advanced Modules</u> With the following modules:- a) Food Production (Cookery) b) Front office Management c) Food & Beverage Service (Stewardship) d) House keeping 	6 months each	Completed BBBT in Hospitality OR NTC/NAC in relevant trade OR Diploma in Hospitality

3.	In-Plant Specialized Training	6 months	Completed any Advanced Modules in
5.	in Hospitality Management	0 11011115	Hospitality Management course
1+ N	apusa Govt. ITI		Tospitanty Management course
	-	[
1.	 <u>Production &</u> <u>Manufacturing</u> <u>Broad Based Basic Training</u> With the following modules a) Basic Fitting & Measurements b) Basic Sheet Metal Work &Welding, c) Basic Electrical & Electronics Computer Skills 	1 year	10 th pass under 10+2 system
	 d) Basic Turning & Grinding(Including knowledge of Materials & Heat Treatment) e) Basic Milling & Gear Cutting (Including knowledge of Planning, Shaping and Slotting) f) Basic CNC Programming & Operation & Hydraulic & Pneumatics 		
2.	Production &		
	Manufacturing Advanced Modules With the following Modules: a) CNC Machining	6 months	Completed BBBT in Production & Manufacturing sector OR NTC/NAC in Turner / Machinist OR Diploma in Mechanical Engg/Production Engg.
	b) PLC & Automation	6 months	Completed BBBT in Production & Manufacturing sector OR Diploma in Mechanical Engg/Production/ Electronics Engg.
3.	In-plant Specialized Training in Production & Manufacturing	6 months	Completed any Advanced Module in Production & Manufacturing.
At N	Margao Govt. ITI		1
1.	Information Technology		
	 Broad Based Basic Training With the following Modules:- a) Basic Electrical & Electronics b) Basic Assembling & Maintenance of PC's 		10^{th} Pass under $10 + 2$ system with
	c) Basic Computer Networkingd) Basic Office Automation	1 year	science.

	e) Basic Internet &		
	Multimedia		
	f) Basic Database Processing		
2.	Information Technology		
	Advanced modules		
	With the following Modules:-		
	a) Repair & Maintenance of	6 months	Completed BBBT in Sector IT or
	Hardware of Computer &		NTC/NAC in IT & ESM/Network
	Peripherals.		Technician or any other related trade
	_		or Diploma in IT.
	b) Multimedia & Creative		Completed BBBT in Sector IT or
	Designing	6 months	NTC/NAC in IT & ESM/COPA or any
			other related trade OR Diploma in IT
	c) Computer Networking		Completed BBBT in Sector IT or
		6 months	NTC/NAC in IT & ESM/Mechanic
		omonuis	Computer Hardware or any other
			related trade OR Diploma in IT
3.	In-Plant specialized Training		
3.	in Information technology.		
	a) Repair & Maintenance of		Completed relevant Advanced
	, I	6 months	Completed relevant Advanced Modules of IT.
	Hardware of Computers &	6 months each	
	Peripherals	each	
	b) Multimedia & Creative		
	Designing		
	c) Computer Networking		
At P	Pernem Govt. ITI		
1.	Fabrication (Fitting &		
	Welding)		
	Broad Based Basic Training		
	With the following Modules:		
	a) Basic Fitting &		
	Measurements		
1	Measurementsb) Basic Sheet Metal work		
	b) Basic Sheet Metal work		
	b) Basic Sheet Metal work and Fastening	1 vear	10 th pass under 10+2 system
	b) Basic Sheet Metal work and Fasteningc) Basic Machine Shop	1 year	10 th pass under 10+2 system.
	b) Basic Sheet Metal work and Fasteningc) Basic Machine Shop Practice	1 year	10 th pass under 10+2 system.
	 b) Basic Sheet Metal work and Fastening c) Basic Machine Shop Practice (Turner, Milling & 	1 year	10 th pass under 10+2 system.
	 b) Basic Sheet Metal work and Fastening c) Basic Machine Shop Practice (Turner, Milling & Grinding) 	1 year	10 th pass under 10+2 system.
	 b) Basic Sheet Metal work and Fastening c) Basic Machine Shop Practice (Turner, Milling & Grinding) d) Basic Welding 	1 year	10 th pass under 10+2 system.
	 b) Basic Sheet Metal work and Fastening c) Basic Machine Shop Practice (Turner, Milling & Grinding) d) Basic Welding e) Metals and Surface 	1 year	10 th pass under 10+2 system.
	 b) Basic Sheet Metal work and Fastening c) Basic Machine Shop Practice (Turner, Milling & Grinding) d) Basic Welding e) Metals and Surface Finishing Techniques 	1 year	10 th pass under 10+2 system.
	 b) Basic Sheet Metal work and Fastening c) Basic Machine Shop Practice (Turner, Milling & Grinding) d) Basic Welding e) Metals and Surface Finishing Techniques f) Basic Electrical, 	1 year	10 th pass under 10+2 system.
	 b) Basic Sheet Metal work and Fastening c) Basic Machine Shop Practice (Turner, Milling & Grinding) d) Basic Welding e) Metals and Surface Finishing Techniques f) Basic Electrical, Electronics and Computer 	1 year	10 th pass under 10+2 system.
	 b) Basic Sheet Metal work and Fastening c) Basic Machine Shop Practice (Turner, Milling & Grinding) d) Basic Welding e) Metals and Surface Finishing Techniques f) Basic Electrical, Electronics and Computer Skills 	1 year	10 th pass under 10+2 system.
2.	 b) Basic Sheet Metal work and Fastening c) Basic Machine Shop Practice (Turner, Milling & Grinding) d) Basic Welding e) Metals and Surface Finishing Techniques f) Basic Electrical, Electronics and Computer Skills 	1 year	
2.	 b) Basic Sheet Metal work and Fastening c) Basic Machine Shop Practice (Turner, Milling & Grinding) d) Basic Welding e) Metals and Surface Finishing Techniques f) Basic Electrical, Electronics and Computer Skills Fabrication (Fitting & Welding) 	1 year	Completed BBBT in Fabrication
2.	 b) Basic Sheet Metal work and Fastening c) Basic Machine Shop Practice (Turner, Milling & Grinding) d) Basic Welding e) Metals and Surface Finishing Techniques f) Basic Electrical, Electronics and Computer Skills Fabrication (Fitting & Welding) Advanced Modules 	1 year	Completed BBBT in Fabrication (<i>Fitting & Welding</i>) Sector
2.	 b) Basic Sheet Metal work and Fastening c) Basic Machine Shop Practice (Turner, Milling & Grinding) d) Basic Welding e) Metals and Surface Finishing Techniques f) Basic Electrical, Electronics and Computer Skills Fabrication (Fitting & Welding) Advanced Modules		Completed BBBT in Fabrication (<i>Fitting & Welding</i>) Sector OR
2.	 b) Basic Sheet Metal work and Fastening c) Basic Machine Shop Practice (Turner, Milling & Grinding) d) Basic Welding e) Metals and Surface Finishing Techniques f) Basic Electrical, Electronics and Computer Skills Fabrication (Fitting & Welding) Advanced Modules 	1 year 6 months	Completed BBBT in Fabrication (<i>Fitting & Welding</i>) Sector OR NTC/NAC in Welding
2.	 b) Basic Sheet Metal work and Fastening c) Basic Machine Shop Practice (Turner, Milling & Grinding) d) Basic Welding e) Metals and Surface Finishing Techniques f) Basic Electrical, Electronics and Computer Skills Fabrication (Fitting & Welding) Advanced Modules With the following Modules:- a) TIG/MIG Welding 		Completed BBBT in Fabrication (<i>Fitting & Welding</i>) Sector OR NTC/NAC in Welding OR
2.	 b) Basic Sheet Metal work and Fastening c) Basic Machine Shop Practice (Turner, Milling & Grinding) d) Basic Welding e) Metals and Surface Finishing Techniques f) Basic Electrical, Electronics and Computer Skills Fabrication (Fitting & Welding) Advanced Modules With the following Modules:- a) TIG/MIG Welding 	6 months	Completed BBBT in Fabrication (<i>Fitting & Welding</i>) Sector OR NTC/NAC in Welding

	c) Welding Inspection & Testing	6 months	Production Engg.
3.	In- plant Specialized Training in Fabrication (Fitting & Welding).	6 months	Completed any Advanced Module in Fabrication (Fitting & Welding).
At F	armagudi, Sattari & Cacora Go	vt. ITI	
1.	Automobile		
	 Broad Based Basic Training with the following Modules:- a) Basic Fitting & Measurements b) Basic Sheet Metal Work and Welding. c) Basic Electrical & Electronics d) Basic Microprocessor & Commuter Operation 	1 year	10th pass under 10+2 system
	 Computer Operation. e) Basic Petrol & Diesel Engines f) Basic of Transmission, Suspension, Steering System & Brakes. 		
At F	armagudi Govt. ITI		
1.	Automobile		
	Advanced Modules		
	With the following Modules:-	<i>c</i> 1	
	a) Servicing & overhauling of	6 months	Completed BBBT in Automobile OR
	Automobiles (Petrol) b) Servicing & overhauling of	6 months	NTC/NAC in Mechanic Motor Vehicle
	Automobile (Diesel)	0 months	OR other related trade OR
	c) Auto Electricals,	6 months	Diploma in Automobile.
	Electronics & Air-		
	conditioning in Automobiles		
2.	In-plant Specialized Training in Automobile	6 months	Completed any Advanced Module in Automobile
At S	attari Govt. ITI		
1	Automobile Advanced Modul		
	a) Servicing & Overhauling of	6 months	Completed BBBT in Automobile
	Automobiles (Petrol)	6	OR NTC/NAC in Mechanic Motor Vehicle
	b) Servicing & Overhauling of Automobile (Diesel)	6 months	or other related trade
	c) Denting, Painting Welding	6 months	OR
	of Automobiles	omonuis	Diploma in Automobile
2	In-plant Specialized Training in Automobile	6 months	Completed any Advanced Module in Automobile
At C	Cacora Govt. ITI		1
1 AI C	Automobile Advanced Modul	ρ	
1	a) Servicing & overhauling of Automobile (Diesel)	6months	Completed BBBT in Automobile OR

	b) Auto Electricals, Electronics & Air- conditioning in Automobiles	6months	NTC/NAC in Mechanic Motor Vehicle or other related trade OR Diploma in Automobile Engineering
	c) Overhauling of Fuel Injection System & Steering Mechanism	6months	- F
2	In-plant Specialized Training in Automobile	6 months	Completed any Advanced Module in Automobile
At B	icholim Govt. ITI		
1.	 Electrical Broad Based Basic Training With the following modules:- a) Basic Engineering Skill b) Basic Electrical Engineering c) Basic Electronics d) Basic Electronics d) Basic Electrical Wiring and Winding. e) Basic Power Generation, Transmission & Distribution f) Basic Computer Operating Skill & its Application. Electrical Advanced Modules 	1 year	10th pass under 10+2 system with Science as one of the subject.
	 a) Repair and maintenance of Domestic Appliances b) Operation & Maintenance of Equipment used in HT, LT, Substation & Cable Jointing c) Repair and maintenance of Electrical Machines & Power Supply 	6 months 6 months 6 months	Completed BBBT in Sector Electrical OR NTC/NAC in Electrician, consumer Electronics or any other related trade OR Diploma in Electrical Engineering Completed BBBT in Sector Electrical OR NTC/NAC in Electrician or any other related trade OR Diploma in Electrical Engineering
3.	In-plant Specialized Training in Electrical	6 months	Completed any Advanced Module in Electrical

Age: A candidate having minimum age of 14 years and above as on 1.8.2013 shall be eligible to seek admission in the ITIs and a candidate having minimum age of 18 years as on 1.8.2013 shall be eligible to seek admission for the short term course Driver cum Mechanic (Light Motor Vehicle).

Standard of Physical Fitness: No rigid standards are laid down but applicants seeking admission should be physically fit for the work for which they are to be trained, and candidates if selected for admission shall produce Medical Certificate to that effect from Registered Medical Practitioner.

Domicile: A candidate seeking admission in the ITIs should have been residing in Goa for a period not less than ten years preceding the date of the application.

The aforesaid condition shall not apply to: -

- 1) Children of Central/State/Union Territory Government employees and employees of Government of India undertakings who are posted in Goa.
- 2) Children of Freedom Fighters registered as such in the Home Department of Government of Goa.
- 3) Children of parents of Goan origin, who are born in Goa and who are serving in Armed Forces or retired from the Armed Forces provided that such children pass their qualifying examinations under the Central Board of Education or Goa Board of Secondary and Higher Secondary Examinations or Goa Board of Technical Education as the case may be and children of Ex-Servicemen registered with Rajya Sainik Board in Goa who have studied and passed the minimum qualifying examination from the Schools/Polytechnics in Goa. Parents of Goan origin mean both father and mother born in Goa.

Relaxation in domicile period will be considered if seats remain vacant even after exhausting above options for SCVT & NCVT trades in all the ITIs.

Reservation of Seats:

1) Certain percentage of the total seats at each I.T.I. in the respective trades as indicated below have been reserved for various categories of the candidates:

a)	Scheduled Castes (SC)	 02 per cent
b)	Scheduled Tribes	 12 per cent
c)	Physically Handicapped Persons (PHP)	 03 per cent

(Physical Handicap Subject to limits laid down in DGET circular No.DGE&T-

19/(19)/2002-CD dated 22 January 2003)

- d) Other Backward Classes (OBC) 19 1/2 per cent
- 2) 30% of the seats in each of all the above categories shall be reserved for women candidates.
- 3) One seat is reserved at every Government ITI for each of the following categories and the allocation of the trade is at the discretion of the State Director of Craftsmen Training.
 - a) Children of Freedom Fighters (CFF)
 - b) Children of State and Central Government Employees (CGE)
 - c) Children of African Repatriates of Goan Origin (CAR)
- 4) One seat in each of the ITIs are reserved for wards of defence personnel in the following order of priority:
 - a) Children of deceased/disabled Ex-Servicemen, including those killed/disabled during peacetime.
 - b) Children of Ex-servicemen

- c) Children of serving jawans
- d) Children of serving officers
- e) Ex-Servicemen

The allocation of trades is at the discretion of State Director of Craftsmen Training.

The reservation shall be considered only if specifically indicated in the application form by the candidate.

The Institute Managing Committee (IMC) of Vasco Govt. ITI is permitted to utilize up to 20% of sanctioned seats for admissions to this Institute on merit basis against the payment of fee structure as fixed by IMC.

Method of Selection:

A separate merit list of each entry qualification will be drawn for selection of candidates eligible for admission by the Principal of respective ITI. Admissions will purely be on merit and on first come first serve basis to the applicant on the days specified in the "Schedule of Admission Process".

An applicant desiring to seek admission in a particular trade will have to specifically enclose the marksheet of the entry qualification required for the respective trade.

The candidate shall bring original testimonials along with required fees on the day of counseling itself to complete the admission procedure. No grace time will be granted.

Caution Money Deposit:

Each trainee will be required to deposit on admission a sum of Rs. 500/- (Per Trade Course) to guard against loss or damage to equipments or tools entrusted to his/her charge during the course of training. A second deposit may also be asked for if the first one has been exhausted.

The caution money is refundable to a trainee on satisfactory completion of the course or in the event of his/her discharge from the institute on any grounds, after deduction of government dues, if any. Caution money deposits which are not claimed within six months after completion of training, and in the case of trainees who discontinue their training after one month of its commencement shall be forfeited to the Government.

Fees

Tuition Fees:

Each trainee shall be required to deposit on admission a non-refundable Tuition Fee towards his/her training in the trade course to which he/she is admitted as indicated below:

Sr. No.	Trade	Tuition Fee
1.	1. All BBBT & Advanced Modules (CoE)	
2.	All other trades (CTS)	Rs. 2000/-
3.	Short Term Courses	Rs. 2000/-

Examination Fees:

The trainees declared eligible to appear for the semester pattern trade test of craftsmen conducted at the end of each semester shall have to pay an examination fee of Rs. 200/-

per trainee per semester. The repeaters shall be charged Rs. 500/- for every additional attempt and private trainees shall be charged Rs. 2000/- per attempt. An additional fee as fixed by National Institute of Electronics and Information Technology, New Delhi will have to be paid by the trainee appearing for IT Literacy Test on each occasion.

Instructions for filling up of the Application Form and Acknowledgement Card:

- 1) Fill up the Application Form and Acknowledgement Card only after reading the Prospectus and the Application Form carefully.
- 2) The name of the candidate should be given in full as recorded in the birth certificate and a copy of the birth certificate shall be compulsorily enclosed.
- 3) Every candidate has a choice to select for a trade course from any of the ten ITIs. In case a candidate opts to apply for admissions to more than one ITI, then he/she will have to submit separate applications at each ITI of his/her choice.
 - a) Trade Codes: The code numbers of various trade courses in Government ITIs are as follows:

Trade Code No.	Existing Trades
110.	TRADES UNDER CTS
TC 01	Computer Operator and Programming Assistant
TC 02	Information Technology & Electronics System Maintenance
TC 03	Desktop Publishing Operator
TC 04	Fitter
TC 05	Turner
TC 06	Machinist
TC 07	Electrician
TC 08	Instrument Mechanic
TC 09	Mechanic (Refrigeration & Air Conditioning)
TC 10	Electronics Mechanic
TC 11	Draughtsman (Mechanical)
TC 12	Draughtsman (Civil)
TC 13	Stenography (English)
TC 14	Secretarial Practice (English)
TC 15	Mechanic (Motor Vehicle)
TC 16	Hair & Skin Care
TC 17	Craftsmen Food Production (General)
TC 18	Steward
TC 19	Mechanic (Diesel)
TC 20	Welder (Gas and Electric)
TC 21	Carpenter
TC 22	Wireman

TC 23	Plumber
TC 24	Cutting & Sewing
	TRADES UNDER COE
TC 25	Hospitality Management -Broad Based Basic Training
TC 26	Hospitality Management -Advanced Module -Food Production
TC 27	Hospitality Management -Advanced Module -Front Office Management
TC 28	Hospitality Management -Advanced Module -Food & Beverage Service
TC 29	Hospitality Management -Advanced Module -House Keeping
TC 30	Production and Manufacturing-BBBT
TC 31	Production and Manufacturing- Advanced Module - CNC Machining
TC 32	Production and Manufacturing- Advanced Module - PLC & Automation
TC 33	Information Technology - BBBT
TC 34	Information Technology - Advanced Module-Repair &
TC 35	Maintenance of Hardware of Computer & Peripherals. Information Technology - Advanced Module- Multimedia & Creative Designing
TC 36	Information Technology - Advanced Module- Computer Networking
TC 37	Fabrication (Fitting & Welding)- BBBT
TC 38	Fabrication – Advanced Module-TIG/MIG Welding
TC 39	Fabrication – Advanced Module-Pressure Vessel & Pipe Welding
TC 40	Fabrication – Advanced Module-Welding Inspection & Testing
TC 41	Automobile –BBBT
TC 42	Automobile - Advanced Module-Servicing & Overhauling of Automobiles (Petrol)
TC 43	Automobile - Advanced Module-Servicing & Overhauling of Automobiles (Diesel)
TC 44	Automobile - Advanced Module-Automobile - Advanced Module- Auto Electrical, Electronics & Air-conditioning in Automobiles
TC 45	Automobile - Advanced Module-Overhauling of Fuel Injection System & Steering Mechanism
TC 46	Automobile - Advanced Module-Denting, Painting & Welding
TC 47	Electrical –BBBT
TC 48	Electrical - Advanced Module-Repair & Maintenance of Domestic appliances
TC 49	Electrical - Advanced Module-Operation & maintenance of equipments used in HT, LT, Substation and cable jointing
TC 50	Electrical - Advanced Module-Repair & maintenance of electrical machine and power supply
	Short Term Courses
TC 51	Data Entry Operator
TC 52	Driver cum Mechanic (Light Motor Vehicle)

b) Trade preference of the individual choice shall be decided at the time of counseling as per the Merit List based on availability of seat and according to the eligibility of candidate for the trade opted for admission.

Submission of Application Form:

Training Courses at the ITIs under CTS start in the month of August every year and for COE in the month of September every year. Application in the prescribed performa (appended herewith) and accompanied by the <u>ATTESTED COPIES</u> of the following certificates shall be submitted to the office of concerned ITI on or before the date specified in the 'Schedule of Admission Process'.

- 1) Certificate of passing and the statement of marks obtained in the minimum qualifying examination i.e. VIIIth, S.S.C.E., or Diploma in Engineering as the case may be. The candidates applying for Advanced Modules shall submit certificate stating completion of BBBT course. The candidates failing in S.S.C.E. shall produce "Statement of Marks". The candidates passing 8th std. shall produce statement of marks and a passing certificate to the effect from the concerned school.
- 2) Leaving Certificate from the School/Institute/College attended last by the candidate. In case such certificate is not available at the time of submission of an application to the ITI a candidate selected for admission to the ITI shall have to produce it while taking admission in the ITI.
- 3) Birth Certificate from the Registrar of Births and Deaths.
- 4) A certificate of continuous period of residence of 10 years in Goa on the date of application from the Mamlatdar having jurisdiction over the area of residence.
- 5) In case of children of employees of the Central/State Government or Government of India Undertakings, a certificate issued by the Head of the Office or Department, also stating therein the relationship with the candidate and the place of his/her posting in Goa.
- 6) In case of children of Ex-Servicemen/Defence Personnel a certificate from the Competent Authority to the effect that either of their parents had been exserviceman/ Defence personnel.
- 7) In case of children of Freedom Fighters, a certificate from the Home Department of Government of Goa stating that his/her father/mother has been registered as Freedom Fighter.
- 8) In case of the candidates belonging to Scheduled Castes/Scheduled Tribes/Other Backward Class, a certificate to that effect from the Mamlatdar of the concerned area.
- 9) In case of the Physically Handicapped candidates a certificate from the Dean, Goa Medical College, regarding the nature of the disability or handicap and the extent to which the candidate is fit for joining the desired trade in the ITI.
- 10) In case of the Children of the African Repatriates of Goan origin, a certificate to that effect from the Home Department of Government of Goa.
- 11) Candidates passing Std Xth through National Open School without Maths & Science (not Home Science) subjects, <u>does not qualify for admission</u> to the

courses where Maths & Science are the subjects required for minimum Educational Qualifications under NCVT/ SCVT.

The application form duly filled in and accompanied by the required certificates should be submitted personally at the entry counter of the respective I.T.I. or sent through registered post AD addressed to the principal of the concerned ITI. The acknowledgement card along with the Application number should be obtained from the concerned I.T.I. as it will be required to be preserved and produced whenever called for. Late and/or incomplete applications or those without true copies of the necessary certificates may not be considered.

Completion of Admission Procedure

Procedure of admission shall not continue beyond 15 days of starting of training session in case of 1 year trade courses, and one month in case of 2 year trade courses, as per the instructions in the Training Manual by DGE&T. (Applicable only for vacant seats).

ANNEXURE - I

TRADE-WISE INTAKE CAPACITY OF EACH ITI FOR YEAR 2013-14

EXISTING TRADES AND UNITS AFFILIATED TO NATIONAL COUNCIL FOR VOCATIONAL TRAINING

(NCVT), NEW- DELHI.

Sr No	ITI	Computer Operator & Programming Assistant	Information Technology & Electronics System Maintenance	Desktop Publishing Operator	Fitter	Turner	Machinist	Electrician	Instrument Mechanic	Mechanic (Refrigeration & Air Conditioning)	Electronics Mechanic	Draughtsman (Mechanical)	Draughtsman (Civil)	Stenography (English)	Secretarial Practice	Mechanic (Motor Vehicle)	Hair & Skin Care	Craftsmen Food Production (Gen)	Steward	Mechanic (Diesel)	Welder (Gas & Electric)	Carpenter	Wireman	Plumber	Cutting & Sewing	Total
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
1	Farmagudi	40	20	0	20	20	20	40	20	20	20	20	20	0	0	0	0	0	0	0	40	0	0	0	0	300
2	Panaji	0	0	0	20	0	0	20	0	0	0	0	0	0	0	20	0	0	0	40	40	0	0	20	0	160
3	Mapusa	40	20	0	0	0	0	20	0	0	20	0	0	0	20	20	20	0	0	40	0	0	0	0	0	200
4	Margao/ Aquem Baixo	20	0	20	20	0	0	20	0	0	20	0	0	0	0	0	40	20	20	0	0	0	0	40	40	260
5	Cacora	20	0	0	20	0	0	20	0	20	0	0	0	0	0	0	0	0	0	0	40	0	0	0	0	120
6	Pernem	40	0	0	0	0	0	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20	0	80
7	Bicholim	0	0	0	20	0	0	0	0	0	0	0	20	20	0	0	0	0	0	40	0	0	20	0	20	140
8	Sattari	0	0	20	20	20	0	20	0	20	0	0	0	0	0	0	0	0	0	0	20	0	0	40	20	180
9	Canacona	20	0	0	20	0	0	20	0	0	20	0	0	0	0	0	0	0	0	20	20	20	0	0	20	160
10	Vasco	20	0	20	20	0	0	20	0	20	20	0	0	0	0	0	0	0	0	40	20	0	20	20	0	220
	Total	200	40	60	160	40	20	200	20	80	100	20	40	20	20	40	60	20	20	180	180	20	40	140	100	1820

ANNEXURE - II

TRADE-WISE INTAKE CAPACITY OF EACH ITI FOR 2013-14

TRADES UNITS UNDER THE AEGIS OF STATE COUNCIL FOR VOCATIONAL TRAINING (SCVT) UNDER CTS,

<u>PANAJI-GOA</u>

ITI	Computer Operator & Programming Assistant	Desktop Publishing Operator	Machinist	Electrician	Electronics Mechanic	Hair & Skin Care	Welder (Gas & Electric)	Wireman	Plumber	Cutting & Sewing	Mechanic (Refrigeration & Air Conditioning)	*Data Entry Operator	*Driver Cum Mechanic (Light Motor Vehicle)	Total
2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Farmagudi	0	0	0	0	0	0	0	0	40	0	0	0	0	40
Panaji	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mapusa	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Margao/ Aquem Baixo	0	0	0	0	0	0	0	0	0	0	20	20+20*	0	60
Cacora	0	20	0	0	0	20	0	20	40	20	0	0	0	120
Pernem	0	0	0	0	0	0	0	0	0	0	0	0	20+20*	40
Bicholim	40	0	20	0	0	0	20	0	20	20	0	0	0	120
Sattari	0	0	0	0	20	0	0	0	0	0	0	0	0	20
Cancaona	0	0	0	0	0	0	0	20	40	0	0	0	20+20*	100
Vasco	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	40	20	20	0	20	20	20	40	140	40	20	40	80	500
	2FarmagudiPanajiMapusaMargao/ AquemBaixoCacoraPernemBicholimSattariCancaonaVasco	23Farmagudi0Panaji0Mapusa0Margao/ Aquem Baixo0Cacora0Pernem0Bicholim40Sattari0Cancaona0Vasco0Total40	2 3 4 Farmagudi 0 0 Panaji 0 0 Mapusa 0 0 Margao/ Aquem Baixo 0 0 Cacora 0 20 Pernem 0 0 Bicholim 40 0 Sattari 0 0 Vasco 0 0	2 3 4 5 Farmagudi 0 0 0 Panaji 0 0 0 Mapusa 0 0 0 Margao/ Aquem Baixo 0 20 0 Cacora 0 20 0 Pernem 0 0 0 Bicholim 40 0 20 Sattari 0 0 0 Vasco 0 0 0 40 0 0 0 Vasco 0 0 0	2 3 4 5 6 Farmagudi 0 0 0 0 Panaji 0 0 0 0 Mapusa 0 0 0 0 Margao/ Aquem Baixo 0 20 0 0 Cacora 0 20 0 0 Pernem 0 0 0 0 Sattari 0 0 0 0 Vasco 0 0 0 0 40 0 0 0 0 Sattari 0 0 0 0 Vasco 0 0 0 0	ITINote that is a set of the s	ITINoSolution and observed bestressSolution and and bestressSolution and and bestressSolution and and bestressSolution and and and bestressSolution and and and bestressSolution and 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*Since the Short term courses are of 6 months duration the 2nd batch will start in the month of February 2014.

	1	Sr No.	
TOTAL	Panaji	П	
96	96	Hospitality Management (BB	3BT)
0	0	Food Production	٩dv
0	0	Front Office Management	Hosp Mana; Mana;
0	0	Food & Beverage Service	Hospitality Management Advanced Modules
0	0	House Keeping	y nt dules
0	0	Information Technology (BE	BT)
0	0	Repair & Maintenance of Hardware & Peripherals	Infc Tec Advanc
0	0	Multimedia & Creative Designing	Information Technology Advanced Modules
0	0	Computer Networking	n V dules
0	0	Production & Manufacturing (BBBT)
0	0	CNC Machining	P adva
0	0	CAD/CAM	rodu anuf ance
0	0	PLC & Automation	Production & Manufacturing advanced module
0	0	Quality Engineering	& ing dules
0	0	Fabrication (Fitting & Welding)	(BBBT)
0	0	TIG/MIG Welding	Fat Ac
0	0	Pressure Vessel & Pipe Welding	abricatio Fitting & Welding) Advancec Modules
0	0	Welding Inspection & Testing	ed es
0	0	Automobile (BBBT)	
0	0	Servicing and Overhauling of Automobil (petrol)	Autor
0	0	Servicing and Overhauling of Automobil (Diesel)	nobile
0	0	Auto electrical, Electronics & Air Conditioning	Advanc
0	0	Overhauling of fuel injection system and steering Mechanism	Automobile Advanced Modules
0	0	Denting, Painting & Welding	Jules
0	0	Electrical (BBBT)	
0	0	repairing & Maintenance of Domestic Appliances	Elect
0	0	used in HT, LT substation and Cable joining.	rical Adva Modules
0	0	Repair and maintenance of electrical machines and power supply	Electrical Advanced Modules
96	96	Total	

(Affiliated to National Council for Vocational Training (NCVT) New Delhi) Trades and units run under C.O.E. scheme **ANNEXURE - III**

ANNEXURE - IV

Trades and units run under C.O.E. scheme

(Affiliated to State Council for Vocational Training (SCVT) PANAJI-GOA.

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		BBB	Adv	anceo	d Moo	aules	(вввт)	Advance a	ea ivic	baules	g (BE	adva	ance	a mo	dules	g) (B	IV	odule	es I		-	nobile	Advand		aules			Module:		
Sr No.	ITI	Hospitality Management (BBBT)	Food Production	Front Office Management	Food & Beverage Service	House Keeping	Information Technology (I	Repair & Maintenance of Hardware & Peripherals	Multimedia & Creative Designing	Computer Networking	Production & Manufacturing (BBBT)	CNC Machining	CAD/CAM	PLC & Automation	Quality Engineering	Fabrication (Fitting & Welding) (BBBT)	TIG/MIG Welding	Pressure Vessel & Pipe Welding	Welding Inspection & Testing		servicing and Overhauling of Automobil (petrol)	servicing and Overhauling of Automobil (Diesel)	Auto electrical, Electronics & Air Conditioning	Overhauling of fuel injection system a steering Mechanism	Denting, Painting & Welding	Electrical (BBBT)	repairing & Maintenance of Domestic Appliances	used in HT, LT substation and Cable joining.	Repair and maintenance of electrical machines and power supply	Total
1	Panaji	00	32	16	32	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	96
2	Margao	0	0	0	0	0	96	32	32	32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	192
3	Mapusa	0	0	0	0	0	0	0	0	0	96	32	0	32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	160
4	Pernem	0	0	0	0	0	0	0	0	0	0	0	0	0	0	96	32	32	32	0	0	0	0	0	0	0	0	0	0	192
5	Sattari	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	96	32	32	0	0	32	0	0	0	0	192
6	Farmagudi	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	96	32	32	32	0	0	0	0	0	0	192
7	Cacora	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	96	0	32	32	32	0	0	0	0	0	192
8	Bicholim	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	96	32	32	32	192
9	Canacona	96	32	16	32	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	192
	TOTAL	96	64	32	64	32	96	32	32	32	96	32	0	32	0	96	32	32	32	288	64	96	64	32	32	96	32	32	32	1600

SCHEDULE OF ADMISSION PROCESS

Sr. No.	Activity / Event & Places	Date 8	k Time		
1.	Sale of Prospectus at All Govt. ITI s	27 th May 25 th Augu	ust 2013		
2.	Last day for receiving Application forms at admission centre complete in all respect.	12 th Ju	ly 2013		
3.	Display of Merit List by ITI's on their notice board.	17 th Jul	y 2013		
4.	Date of admission of candidates belonging to General categories. From Merit No. 0001 to 0100 0101 to 0200 0201 to 0300 0301 to 0400 0401 to 0500 0501 to 0600 0601 and above	Date 19.07.2013 19.07.2013 20.07.2013 20.07.2013 22.07.2013 22.07.2013 23.07.2013	Time 10.00 a.m. 2.00 p.m. 10.00 a.m. 2.00 p.m. 10.00 a.m. 2.00 p.m. 10.00 a.m. To 05:00p.m.		
5.	Date of admission of candidates belonging to all reserved categories.	24 th Ju	ly 2013		
6.	First Round of Admission for vacant seats	02 nd Aug	ust 2013		
7.	Second Round of Admission for vacant seats	05 th Aug			
8.	Third Round of Admission for vacant seats	07 th August 2013			
9.	Fourth and last round of Admission for vacant seats of 1 year trades.	14 th Aug			
10.	Fifth and last round of Admission for vacant seats of 2 year trades.	31 st Augi	ust 2013		

N.B. Vacant seat of reserved categories shall be allotted to general category from 02/08/2013 onwards.

Candidates selected for admission will have to submit a photograph of parents duly attested by a gazetted officer.

		W	eek	kly (Cal	len	dar	A	ugı	ust	20	13	July	201	4			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Week Sr.No.	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70
2012		AUG	UST-	2013		9	SEPT	-ОСТ	- <mark>20</mark> 1	3		OCT-N	OV-20	13	NC	VEMB	ER-201	3
Mon		5	12	19	26	2	9	16	23	30	7	14	21	28	4	11	18	25
Tue		6	13	20	27	3	10	17	24	1	8	15	22	29	5	12	19	26
Wed		7	14	21	28	4	11	18	25	2	9	16	23	30	6	13	20	27
Thu	1	8	15	22	29	5	12	19	26	3	10	17	24	31	7	14	21	28
Fri	2	9	16	23	30	6	13	20	27	4	11	18	25	1	8	15	22	29
Sat	3	10	17	24	31	7	14	21	28	5	12	19	26	2	9	16	23	30

State Directorate of Craftsmen Training	
Shramashakti Bhavan,Patto Plaza, Panaji- Goa.	,

Mook Sr No	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
Week Sr.No.	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88
2012-13	DEC-2013-JAN-2014					JAN-FEB-2014				1	FEB-N	/IAR-20	14		MAR-	APR-2	014	
Mon	2	9	16	23	30	6	13	20	27	3	10	17	24	3	10	17	24	31
Tue	3	10	17	24	31	7	14	21	28	4	11	18	25	4	11	18	25	1
Wed	4	11	18	25	1	8	15	22	29	5	12	19	26	5	12	19	26	2
Thu	5	12	19	26	2	9	16	23	30	6	13	20	27	6	13	20	27	3
Fri	6	13	20	27	3	10	17	24	31	7	14	21	28	7	14	21	28	4
Sat	7	14	21	28	4	11	18	25	1	8	15	22	1	8	15	22	29	5

Week Sr.No.	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53
week sr.no.	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105
2012-13	APR-MAY-2014					May	y-14			JUN	E- JU	LY-201	4		JULY	- 2014	
Mon	7	14	21	28	5	12	19	26	2	9	16	23	30	7	14	21	28
Tue	8	15	22	29	6	13	20	27	3	10	17	24	1	8	15	22	29
Wed	9	16	23	30	7	14	21	28	4	11	18	25	2	9	16	23	30
Thu	10	17	24	1	8	15	22	29	5	12	19	26	3	10	17	24	31
Fri	11	18	25	2	9	16	23	30	6	13	20	27	4	11	18	25	
Sat	12	19	26	3	10	17	24	31	7	14	21	28	5	12	19	26	



Monthly Test

Semester Exam



Let us lay the foundation of your Career

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