

# FEDERATION FOR DEVELOPMENT OF ACCREDITATION SERVICES

(MRA Signatory to APAC/ILAC for the scope of Testing & Calibration)



## Information Brochure

### FEDERATION FOR DEVELOPMENT OF ACCREDITATION SERVICES

118-119, FF, Sushant Tower, Sector 56,

Gurgaon-122011 (Haryana), India

Tel: 0124 2570004

Mob: +91-9452206485, 8738875300

E Mail: [info@fdasindia.org](mailto:info@fdasindia.org), [fdasindia@hotmail.com](mailto:fdasindia@hotmail.com)

Website: [www.fdasindia.org](http://www.fdasindia.org)

## **FDAS POLICY**

FDAS is committed to provide accreditation services, in a non-discriminatory manner to applicant CABs operating as Test Laboratories, Calibration Laboratories and Medical Laboratories, in a timely manner, irrespective of the size and ownership and to operate its documented management system in compliance with ISO/IEC 17011:2017 and applicable ILAC/APAC norms.

**DEVI SARAN TEWARI**

**Director, FDAS**

## **1.0 Introduction**

Federation for Development of Accreditation Services (FDAS), India is a program to grant accreditation to CABs/Laboratories, as a non-government organization and in non-profit mode, registered under section 9(1) of the Haryana Registration and Regulation of Societies Act, Department of Industries & Commerce, Haryana, vide registration number HR/018/2019/03652, on 27<sup>th</sup> March 2019, by The Registrar of Societies, Govt of Haryana, India.

The management system of FDAS is as per ISO/IEC 17011:2017, and is committed to grant Accreditation to Test, Calibration, and Medical laboratories, as per respective international standards like ISO/IEC 17025:2017 / ISO 15189:2022 and ILAC/APAC norms. The commitment of FDAS to abide by the norms from international institutions like ISO, IEC, ILAC, APAC etc., has enabled it to attain Asia Pacific Accreditation Cooperation (APAC) MRA Signatory status which in turn provides global equivalence to its accredited CABs/Laboratories. After its evaluation by APAC, FDAS became APAC MRA (Mutual Recognition Arrangement) signatory/Full Member of APAC on 16<sup>th</sup> June 2023 and became ILAC MRA signatory/Full Member of ILAC on 28<sup>th</sup> Aug 2023 for the scope of testing and calibration.

The need for creating additional accreditation body for India must be seen in conjunction with the need of country which has about six lakh laboratories, consisting of about three lakh testing laboratories and more than three lakhs medical laboratories. Though the laboratory accreditation program was approved by the Govt. of India in 1981, it started granting accreditation in 1989, from Department of Science and Technology, by National Coordination of Testing and Calibration Facilities (NCTCF), the name of accreditation program, which was transformed to NABL in 1992, and to meet international (ISO/IEC) norms.

As on date the number of accredited laboratories is less than nine thousand laboratories, although the best is being done. The country is aspiring to become a five trillion economy and must have matching means to achieve desired goal and therefore needs additional accreditation body.

Keeping this in mind an NGO was formed as a society for laboratory accreditation, which is now APAC/ILAC MRA Signatory and serves the Indian economy to meet its needs.

## **2.0 Mode of Service**

FDAS, the NGO registered under the “Registration and Regulation of Societies Act, 2012 of Haryana Government”, aims to serve the community as a charitable organization and as a non-profit making body and by maintaining financial sustainability.

## **3.0 Professional commitment of FDAS:**

FDAS is committed to being professional in its approach with laboratories in general and specifically with its accredited CABs/laboratories, by keeping them informed with justification before making a change in its management system that may affect CABs/laboratories functioning, and to incorporate their views to the extent possible. FDAS has the complaints & Appeals redressal system, also when resolved complaints are not to the satisfaction of CABs/laboratories, they are free to make an appeal against the decision of FDAS, which are considered by the Jury, which is not involved in the decision making & is independent to consider such appeals and to pronounce its judgment, which is a binding to the parties concerned. The jury would have more than one expert.

## **4.0 FDAS Policy on grant of accreditation and Impartiality/Confidentiality:**

FDAS is open to grant accreditation to all willing laboratories (CABs), irrespective of ownership, size, or affiliations, and from all sectors of the economy and committed to maintaining impartiality in its functioning from the test, calibration, and medical laboratories. As a policy, its management, staff,

committee members, assessors, and experts involved in the process of accreditation are required to pledge to maintain impartiality and confidentiality. FDAS has a website ([www.fdasindia.org](http://www.fdasindia.org)) and it gives the details of scope of accreditation of laboratories along with the certificate. FDAS accreditation is an acknowledgement for the competence of the applicant for the scope of testing/calibration parameters identified by FDAS and is not to certify a product.

## **5.0 Accreditation Requirements:**

FDAS grants accreditation to the applicant CABs (test, calibration, and medical laboratories) for the defined scope subject to the demonstration of competence and compliance to the following applicable norms.

**5.1** General requirement for the competence of testing and calibration laboratories ISO/IEC 17025: 2017.

**5.2** Medical laboratories – Requirements for quality and competence, ISO 15189:2022

Besides, accredited laboratories are required to abide by the:

- i. Terms and conditions of FDAS to maintain accreditation (FDAS 131).
- ii. Terms and conditions for use of FDAS symbol & FDAS symbol combined ILAC MRA mark by laboratories (FDAS 132)
- iii. FDAS supplementary criteria applicable for different accreditation schemes.

FDAS has adopted ILAC documents from the P & G series, where available, and can be downloaded from: [www.ilac.org](http://www.ilac.org)

## **6.0 Scope of FDAS (Test laboratory in the following fields)**

**6.1** Biological

**6.2** Chemical

**6.3** Electrical

**6.4** Electronic

**6.5** Fluid Flow

**6.6** Mechanical

**6.7** Non-Destructive (NDT)

**6.8** Optical and Photometry

**6.9** Radiological

**6.10** Thermal

## **7.0 Fields have been divided groups & subgroups.**

### **7.1 Biological Testing**

<b>Group</b>	<b>Sub-group</b>
Animal Food & Feed	Animal Nutrition Supplements Aquaculture feed additives Aquaculture feed ingredients Cotton seed cake Fish, Shrimps, Prawn feed Groundnut meal Guar Meal Oil Cake Pet Foods Poultry feed additives Rapeseed Meal

	Others
Antimicrobial activity Products	Adhesives Glues and Sealant Fuels and Oils Lubricants Packaging Materials Paints and surface coatings Pulp & Paper Soaps & Detergents Textiles & Fabrics Toys and Other Children's Products Water Miscible Products Wood & Wooden Products Others
AYUSH Products	Ayurvedic drugs Herbal formulations Homeopathic Drugs Siddha Drugs Unani Drugs Others
Biocides	Algicides Antiseptics Bactericides Disinfectants Fungicides Herbicides Insecticides Sanitizers Sporicides Viricides Weedicides Others
Biological Monitoring	Blood alcohol Drugs & Drug Metabolites Fluoride Interferons Others
Biological Tests on Other Miscellaneous Test Items	Adhesives Glues and Sealant Adhesives Glues and Sealant Fuels and Oils Lubricants Packaging Materials Paints and surface coatings Pulp & Paper Soaps & Detergents Textiles & Fabrics Toys and Other Children's Products Wood & Wooden Products Others

Biologically Derived Pharmaceuticals	Enzymes Growth factors Hormones Monoclonal Antibodies (MABs) Recombinant Proteins Single Cell Proteins (SCP) Vaccines Others
Biopesticides and Biofertilizers	Others
Cell Culture	Cell permeability test Purity Others
Cosmetics & Essential Oil	Perfumes Tooth Paste Hygiene products Cosmetics
Drugs and Pharmaceuticals	Antibiotics Bioassays of Other Products (Other Than Those Products Mentioned Above) Chemotherapeutic Agents Drug Intermediates Drug Substances (Active Pharmaceuticals Ingredients (API)) Endotoxins Filtrable Solutions & Soluble Preparations Immunological Products Microbial limit test Non-Filterable Preparations Including Ointments Preservative efficacy Pyrogen tests Raw Materials Sterility tests Synthetic Drugs Veterinary Drugs Others
Pollution & Environment	Air surface Bio burden Estimation of Classified and non-classified area Effluents Waste water Sewage
	Soil Solid waste Others

Food and Agricultural Products	Bakery & Confectionery Products Beverages (Alcoholic / Non-Alcoholic) Canned & Processed Foods Cereals, Pulses & Cereal Products Coffee & Cocoa Products Edible Colors & Flavors Edible Oils & Fats Edible Salts Eggs & Egg Products Essential Nutrients Including Vitamins Food Additives & Preservatives Fruit & Fruit Products Gelatin and Other Gums Herbs, Spices & Condiments Honey & Honey Products Infant Foods Jams, Juices, Sauces & Concentrates Meat & Meat Products Milk & Dairy Products (Except Human Milk) Natural Waxes Nuts & Nut Products Oil Seeds & By-Products Poultry & Poultry Products Snacks and Instant Mixes Starch & Starch Products Sugar & Sugar Products Tea Tobacco & Tobacco Products Vegetables & Vegetable Products Others
Plants	Plants Plants material Other
GM Products	Promoter & Terminator Screening Qualitative Detection Quantitative Analysis Others
Industrial Cultures	Cultures for baking and brewing Dairy Starter Cultures Mushroom Spawn Probiotics Cultures Rhizobial Cultures Starter cultures for Effluent Treatment Plant Others
Marine /Aqua culture Food Products	Artemia & Artemia Products Crab & Crab Products Fish & Fish Products Molecular identification of bacterial, fungal, viral pathogens Oyster
	Prawn & Prawn Products Shrimps Others

Medical Accessories & Surgical products	Blood Bags Catheter Condoms Copper T Hypodermic Needles Tubal Rings Others
Molecular Analysis (Tests for Various Matrices- Human, Plants, Animal, Microbial)	16S rDNA sequencing Bacterial Mutagenicity Tests Bacterial fungal viral Pathogen Detection Detection of adulterants Fragment Analysis Gene Expression Gene Copy Number Genotyping Next Gen- Sequencing Sister Chromatid Exchange Tests Transformation Assays In Cell culture Others
Nutraceuticals & Functional Foods	Carotenoids Dietary Fibres Flavonoids Fortified Food Phytoestrogens Prebiotics Probiotics Soy Proteins Others
Nutritional Supplements	Others
Plants and Plant Materials	Identification of Bacterial Fungal Viral Pathogens Others
Residue Analysis	Antibiotic residue analysis by micro assay Others
Resistance to Microbial Attack	Electrical Components Leather & Leather Products Packaging Materials Paints and surface coatings Textiles and Fabrics Timber and Allied Material Wood and Wood Products Others
Seed Testing	Germination GM Testing Purity
	Others

Toxicology	Acute Toxicity (oral, dermal, inhalation) Ame's test Cytogenetics Cytotoxicity Eye irritation test Mucous membrane irritation test Mutagenicity (In -vitro) Skin sensitization test In vitro studies using cell culture chick embryos Material mediated Pyrogenicity Hemolytic properties of material (Hemocompatibility) Implantation (bone, muscle, Subcutaneous) Others
Veterinary Testing	Specified tests in biochemistry, Haematology, cytopathology, histopathology, serology, parasitology Others
Water	Distilled /Demineralized Water Drinking Water Ground Water Surface Water Packaged Drinking Water Packaged Natural Mineral Water Water for Construction Purpose Water for industrial purpose Water for Medicinal Purposes Water for Processed Food Industry Water for Swimming Pool and Spas Water Purifiers Others
Forensic Analysis	Analysis of biological fluids & typing Testing of hair, bones, tissues, etc. Botanical examination & Testing.
Wild Life Forensic	Others
<b>Miscellaneous</b>	

## 7.2 Chemical Testing

Group	Sub-group
Adhesives	Glues Natural gums Physical Properties Polymer based adhesives (Synthetic) Starch based adhesives Others
Animal Food & Feeds	Animal Nutrition Supplements Aquaculture feed additives Aquaculture feed ingredients Cotton seed cake Fish, Shrimps, Prawn feed Groundnut meal

	Guar Meal Oil Cake Pet Foods Poultry feed additives Rapeseed Meal Others
Atmospheric Pollution	Ambient air Ambient Noise Levels (Excluding vibration) Fugitive emission Meteorological Parameters Process/Vent Emissions Source Noise Levels (Excluding vibration) Particular Source to be specified Stack emission Vehicle emission Work Environment and Indoor Air Quality Others
Ayush Products	Ayurvedic drugs Herbal formulations Homeopathic Drugs Siddha Drugs Unani Drugs Others
Building Material	Aggregates Bitumen& asphalts Bricks & pre-casted blocks Cement Ceramics Concrete Construction chemicals Fly ash Gypsum & its products Lime Mortars Pozzolanic materials Refractory materials Sand Water-proofing compounds Others
Corrosion tests	Dezincification Tests Salt Spray Tests Other
Cosmetics & Essential Oils	Aromatic chemicals Cosmetics Essential oils and other natural fragrant raw materials Fragrances and Indian attars Herbal based cosmetics Intermediates and miscellaneous chemicals for cosmetics Synthetic essential oils Others
Drugs & Pharmaceuticals	Capsules Chemical Methods Creams

	Drug Substance (API) Drops Gels Hormones Ointment Oral Liquids Oral Powders Parenteral Preparations Pharmaceutical Aid (Raw material except API) Physical and Physiological Methods Tablets Vitamins Others
Explosives & Pyrotechnics	Ammunitions Explosive chemicals & allied materials Industrial explosives & associated materials Physical Properties Pyrotechnics Others
Fertilizers	Bio-Fertilizer Fertilizer Mixtures Fortified Fertilizers Macronutrients Micronutrients Nitrogenous Fertilizers Phosphatic Fertilizers Potassic Fertilizers Others
Fire Fighting equipment & Accessories	Aqueous film forming foam concentrates Dry Chemical Powder Foam Concentrates Others
Food & Agricultural products	Bakery & confectionery products Beverages (Alcoholic / Non-alcoholic) Canned & processed foods Cereals, pulses & cereal products Coconut and coconut products Natural Plant Derivatives Products Coffee & cocoa products Edible colors & flavors Edible oils & fats Food additives & preservatives Fruit & fruit products Herbs, spices & condiments Honey & honey products Infant food Jams, juices, sauces & concentrates Meat & meat products Milk & dairy products (except Human Milk) Natural waxes Nuts & nut products Oil seeds & by-products

	Poultry & poultry products Starch & starch products Sugar & sugar products Tea Tobacco & tobacco products Vegetables & vegetable products Others
Plants	Plants Plants material Other
Gases	Compressed Natural Gas (CNG) Piped Natural Gas (PNG) Gases for medical use and diving Industrial Gases Liquefied Gases Reference Gases & Mixtures Others
Glass	Clear glass Laminated Glass Reflective Glass Stain Glass Textured or pattern glass Tinted glass Wired Glass Others
Hazardous & Restricted Chemicals	Automatic dispensers Computing & communications equipment Consumer electronics Large household appliances Leather products Lighting: lamps, lighting fixtures, light bulbs Paints Plastics & other polymeric products Power tools Prints Small household appliances Textile & Textile products Toys and sports equipment Zippers Others
Industrial & Fine Chemicals	Alcohols & Alcohols based Chemical Bleaching Earth / Activated Bleaching Earth Chemical used in Rubber Industry Chemical used in Textile Industry Chemicals used in Agriculture Chemicals used in Electronic industry Chemicals used in Leather Industry Chemicals used in Photographic Industry Chemicals used in Refrigeration industry Disinfectants Electroplating Chemicals Inorganic Chemicals

	Organic Chemicals Others
Inks, dyes & pigments	Duplicating inks Dye intermediates Inorganic pigment powder & pastes Natural dyes & colouring materials Organic pigment powder & pastes Printing inks Synthetic dyes Writing inks Others
Lac & Lac products	Lac Lac products Others
Leather	Finished leather Leather accessories Leather products Semi-finished leather Synthetic leather Others
Lubricants	Aviation lubricants Insulation oils Lubricant additives Microcrystalline wax Oils & greases Solid lubricants Others
Marine /Aqua culture Food Products	Artemia & Artemia Products Crab & Crab Products Fish & Fish Products Oyster Prawn & Prawn Products Shrimps Others
Metallic coatings & treatment solutions	Anodizing solutions Conversion coatings Metal finishing materials Metallic coatings Plating solutions Others
Metals & Alloys	Alloy steel Aluminum& its alloys Amalgam Carbon Steel (low carbon, medium carbon & high carbon steel) Chromium & its alloys Cobalt & its alloys Copper & its alloys Ferro-alloys Ferro-alloys Lead & lead alloys Magnesium & its alloys Nickel & its alloys

	Others Precious metals Rare earth alloys Special Steel Stainless steel Tin and tin alloys Titanium & titanium alloys Tool steel Tungsten & its alloys Zinc & Zinc alloys Others
Nutraceuticals & Functional Foods	Carotenoids Dietary Fibers Flavonoids Fortified Food Phytoestrogens Prebiotics Probiotics Soy Proteins Others
Nutritional Supplements	Others
Ores & Minerals	Alkali Metal Ores Aluminum Ores Barium ore Chromium ores Cobalt ore Copper ores Gem & semi-precious stones Geochemical samples for trace elements Gypsum Iron ores Lead ores Limestone & dolomite Manganese ores Mercury Mercury ore Mineral for insulation materials Mineral for refractories Mineral sands Minor elements Molybdenum Ores Nickel ores Precious metals ores Radioactive metals ores Rare metals ores Rock phosphate Silica sands Tin ores Titanium ores Tungsten ores Zinc ores Others

Paints & Surface Coating	Drying oils Gums, driers & paint removers Paints & enamels Physical Properties Pigments & extenders Polishes Powder coatings Resin coatings Solvents & thinners Varnishes Others
Paper and Pulp	Composite packing material Newsprint and board packing material Paper Paper board Pulp Pulpwood Others
Pesticide Formulations	Aqueous Capsule Suspensions (CS) Aqueous Suspension Concentrates (SC) Aqueous Suspo-Emulsions (SE) Dispersible Concentrates (DC) Dustable Powders (DP) Emulsifiable Powders (EP) Emulsifiable Concentrates (EC) Emulsifiable Granules (EG) Emulsions for Seed Treatment (ES) Emulsions, Oil in Water (EW) Granules (GR) Liquid Vaporizers (LV) Long lasting insecticidal NETS or NETTING(LN) Micro- Emulsions (ME)/ Mixed Formulations of CS and EW(ZW) Mixed Formulations of CS and EW(ZW) Mixed Formulations of CS and SC(ZC) Mosquito Coils (MC) Oil based Suspension Concentrates (OD)(Oil Dispersion) Oil Miscible Liquids (OL) Powders for Dry Seed Treatment (DS) Soluble Concentrates (SL) Solutions for Seed treatment (LS) Suspension Concentrates for Seed Treatment (FS) Tablets for Direct Application (DT) Technical Concentrates (TK) Ultra-Low Volume Liquids (UL) Vaporizing Mats (MV) Water Dispersible Granules (WG) Water Dispersible Powders for Slurry Seed Treatment (WS) Water Dispersible Tablets (WT) Water Soluble Granules (SG) Water Soluble Powders (SP) Water Soluble Powders for Seed Treatment (SS) Water Soluble tablets (ST)

	Wettable Powders (WP) Others
Petroleum and Products	Aviation fuels Crude petroleum Liquefied/compressed gases Petrochemicals, Petroleum solvents Petroleum additives Petroleum feed stocks Petroleum products Waxes and jellies Others
Plastic & Resins	Plastic films Plastics & polymers Raw materials Resin Others
Pollution & Environment	Effluents toxicity (Bioassay only qualitative- 90% survival of fish after 96 hours in 100 percent effluent) Municipal Solid wastes Soil/ Sediments Used/ Waste oil Waste Water (Effluents/Sewage) Wastes (Liquid/Slurry/Sludge/Solid/Semi-Solid) Others
Residues and contaminants in Food and Agricultural Products	Antibiotics Chlorinated dioxins & dibenzofurans Halogenated hydrocarbons Mycotoxins Pesticides Phenols Poly Chlorinated Biphenyl Polycyclic aromatic hydrocarbons Polyhalogenated biphenyls Trace metal elements Others
Residues and contaminants in Water	Antibiotics Chlorinated dioxins & dibenzofurans Halogenated hydrocarbons Mycotoxins Pesticides Phenols Poly Chlorinated Biphenyl Polycyclic aromatic hydrocarbons Polyhalogenated biphenyls Trace metal elements Others
Rubber & Rubber Products	Hard rubber / ebonite Rubber Latex goods Natural / synthetic Latex Natural rubber Rubber compound Rubber Products

	Rubber vulcanizes Synthetic rubber Textile rubber composite Thermoplastic elastomers Others
Soap detergent & Toiletries	Detergent Soaps Toiletries Wetting & Emulsifying agent Others
Soil and Rock	Clays Soil Agriculture Soil Rock Stones Others
Solid Fuels	Briquettes Charcoal Coal Coal tar/Bitumen Coke Oil Shale Others
Textile	Agro-textiles Automotive textiles Carpet & rugs Domestic Textiles Fibre & filaments Finished fabric Garments & Apparels Geo-textiles Grey Fabrics Industrial Textiles Made-ups Medical textile Packaging textiles Protective Textiles Sports textiles Technical textiles Terry Fabrics & its products Yarns & chords Others
Warfare Chemicals	Blister Agents Blood Agents Choking Agents Mustard Agents Nerve Agents Potential CW Agents Psychotomimetic Agents Riot Control Agents Toxins Others

Water	Construction Water Drinking Water Ground Water Industrial Water Irrigation water Packaged Drinking water Surface Water Swimming Pool Water Water from purifiers Others
Bio-stimulant	Botanical extracts, including seaweed extracts Bio -chemicals Protein hydrolysates and amino acids Vitamins Cell free Microbials products Antioxidants Anti-transpirants Humic & fulvic acid and their derivations Others
Forensic Analysis	Chemical analysis of trace materials as clues analysis of poisons, drugs specialized testing by physicochemical techniques, biological fluids & typing Testing of hair, bones, tissues, etc. Botanical examination & Testing.
Miscellaneous	

### 7.3 Electrical Testing

Group	Sub-group
Bridges & Potentiometers	AC bridges AC potentiometers DC bridges DC potentiometers Ratiometers Others
Cables and Wires	Automobile cables Bare cables & wires Elastomeric cables Insulated cables & wires Joints & terminations of polymeric & power cables LF wires & cables with PVC insulation & sheath Paper insulated cables Power cables Thermo-couple compensating cables Welding cables Others
Capacitors	Capacitance attenuators Motor capacitors Precision capacitors Series capacitors Shunt capacitors Surge protection capacitors Others

Cells and Batteries	Button cells Dry batteries Heavy duty batteries Lead acid batteries Nickel-cadmium batteries Others
Conductors and Conducting Materials	Aluminum conductors Copper conductors Enameled/Insulated wires Paper covered conductors Winding wires Others
Domestic Electrical Appliances	Baking ovens Electric & steam irons Electric call bells & buzzers Electric coffee makers Electric food mixers & juicers Electric grills & roasters Electric kettles & jugs Electric shavers Electric steam cookers Electric stoves & hot plates Electric toasters Flexible heating pads Hair dryers Microwave ovens Refrigerators, food freezers & ice makers Vacuum cleaners & suction appliances Washing machines Water heaters Others
Electrical Indicating & Recording Instruments	Ammeters Digital recorders Earth resistance tester Electricity meters Galvanometers & null detectors Graphic recording instruments Insulation resistance tester Ohmmeters Phase meters Power factor meters Transducers Varmeters Voltmeters Watthour meters Watt meters Others
EMI / EMC Test Facility	Fast transient burst test Immunity to conducted disturbances Immunity to electromagnetic HF fields Immunity to electrostatic discharge (ESD) Radio interference measurement Surge immunity test Others

Environmental Test Facility	Acceleration test Bump test Cold test Damp heat test Driving rain Dry heat test Dust test Glow wire Impact test Ingress protection test Robustness of termination test Salt mist test Sealing test Seismic test Soldering test Storage test Vibration test Others
Frequency & Time Measuring Instruments	Clocks & watches Counters Frequency meters Stop watches Tachometers Time interval meters Wave meters Others
High Voltage Test Facility	Alternating voltage test Artificial pollution test Dielectric test Direct voltage test Impulse current test Lightning impulse voltage test Partial discharge test Radio interference voltage test Switching impulse voltage test Wet test Others
Inductors and Transformers	Auto transformers Current transformers Distribution transformers Inductors Neutral earthing transformers Phase shifting transformers Power transformers Pulse transformers
	Ratio transformers Reactors Voltage transformers Others
Insulating Materials & Insulators	Antistatic materials Ceramics Electrical grade paper Insulating Oils

	Insulating tapes Insulating varnish Laminates Polymer films Polymers for cable insulation & sheath Rubber products Sleeving Transformer oils Others
Lamps, Luminaires and accessories	Emergency lights Flood lights Fluorescent lamps General purpose luminaires Halogen lamps Industrial luminaires Lamp holders Mercury vapor lamps Portable luminaires Recessed luminaires Road & street light luminaires Sodium vapor lamps Starters, ballasts & capacitors Tungsten filament lamps Others
Magnetic Materials	Flux meters Magnetic sheets Magnets, solenoids & Helmholtz coils Others
Miscellaneous	AC / DC transfer instruments Plastic materials & products Others
Power System and Stabilizers	Stabilized power supplies (AC & DC) Servo operated voltage stabilizers (AC) Uninterrupted power systems (UPS) Others
Resistors, resistance boxes & potential dividers	AC shunts Conductance boxes DC shunts Potential dividers Precision resistors Resistance boxes Volt ratio boxes Others
Rotating Electrical Machines	Alternators Centrifugal pumps Increased safety motors Induction motors Other pumps & motors Self-priming pumps Submersible pumps Universal motors Others

Safety Testing Facility	Others
Short-Circuit Test Facility	General tests on HV switchgear & control gear Inductive load switching on HVAC circuit-breakers Synthetic testing of HVAC circuit-breakers Others
Switchgear & Protective Equipment	Circuit breakers & controllers Fuses & fuse links Motor starters Power system protection relays Protection & control relays Switches & isolators Time switches Others
Transmission Line Equipment and Accessories	Aluminum conductors Busbars Bushings Circuit breakers Conductor & earth wire accessories Electric power connectors Fuses Insulators Isolators & air brake switches Lightning arrestors Line traps Metal fittings Switch gear & control gear Transformers & capacitors Transmission line spacers dampers Others
Wiring accessories	Adhesive / Insulating tape Cable trunking & ducting systems Ceiling roses Conduits Electronic type fan regulator Fittings Plugs & sockets Switches Others
Energy Efficiency of Domestic Electrical Appliances	Room Air Conditioners Frost Free Refrigerators Distribution Transformer Room Air Conditioner (Cassettes, Floor Standing) Direct Cool Refrigerator Electric Geysers Variable Capacity Inverter Air conditioners Washing Machine Ceiling Fans LPG -Stoves Tubular Florescent Lamp Others
Energy Efficiency of Commercial / Industrial	Light Commercial Air Conditioner Chillers

Appliances	Pump Sets Solar Water Heater Deep freezers Diesel Engine Driven Mono-set Pumps DG Sets Induction Motors Others
------------	--

#### 7.4 Electronics Testing

Group	Sub-group
Audio Equipment	Amplifiers Buzzers & ringers Loud speakers / Head phones Microphones Others
Domestic Electronic Appliances & Accessories	AM / FM radio receiver Cassette players / recorders & its components CD players / recorders & its components DVD players/Blu Ray Players Electronic fan regulators LCD/LED Display/TV & its components Microwave ovens Picture tubes Static Energy meters (1 $\Phi$ and 3 $\Phi$ ) TV antenna(dish) TV tuner/DTH (set-top box) Others
Electronic Components & Equipment Sub-Assemblies	Attenuators/AD-DA converters Capacitors Connectors Deflection yokes Diode Electronic Ballast Electronic Counters Filters Fuses Inductive Coils Integrated circuits Laminates Mobile Phone – GSM Mobile Phone -CDMA Mux-demux Oscilloscope/Function generator/ signal generator Passive components Plugs (excluding power supply) Potentiometer Printed circuit boards Resistors Semi-conductor devices Solid State Relays Switches Tab / Note pad Transceivers

	Transformers (excluding power supply) Transistor Amplifiers Transistors Others
EMC Test Facility	Burst Immunity Test Conducted Emission Test Conducted RF Susceptibility Test Damped Oscillatory wave Immunity Tests Electrical Fast Transient (EFT) Electrostatic Discharge Immunity Test High Energy / Telecom Surge Immunity Test Impulse Voltage withstand Test Power Frequency Magnetic Field Immunity Test Pulse Magnetic Field Immunity Test Radiated Emission Test Radiated Magnetic Field Emission Test Radiated Radio Frequency Disturbances Power Test RF Radiated Susceptibility Test Voltage dips, short interruption & voltage variations Immunity Test Voltage Fluctuation & Flicker Test Others
Environmental Test Facility	Acceleration Test Bump Test Cold Test Composite Temperature & Humidity Test Damp Heat (Cyclic) Test Damp Heat (Steady State) Test Driving Rain Test Drop & Topple Test Dry Heat Test Impact Test Low Air Pressure Test Altitude Test Mechanical Shock Test Mould Growth (Fungus) Test Protection against penetration of dust & water Robustness of Terminations Test Salt Mist Test Sand and dust Test Sealing Test (Gross \ Fine Leak) Seismic Test Solar Radiation Test Temperature Cycling Test Thermal Shock Test Tropical Exposure Test Vibration Test Others
Equipment Used in Clinical Laboratory	Auto Clave Cell counter Centrifuge Cyclomixer Densitometer Electronic Analytical Balance Electrophoresis system ELISA reader ESR Analyser

	Hot Air oven Hot Air Sterilizer Hot plate Incubators Laminar Air Flow Microscope Na, K Analyzer Photometers (Colorimeter) Refrigerator Rotary shaker Semi autoanalyzer Sterilizer Urine analyzer VDRL shaker Water Bath Others
IT Equipment	CPU/Disk drives/optical devices/Solid state drives/DIMM/Main board GPU/USB devices/Wi-Fi Hub/ PCI extension cards Keyboards Monitors / VDUs/Modem Network devices Personal computers/Laptop / Note Book/tablets Printers / scanner/Copier Servers Others
Medical Electrical Equipment	ACT Machine Audiometer Auto Refractometer BIPAP Ventilator Blood Filtration Appliance Blood Fluid Warmer Blood Storage Cabinet Boyle's Apparatus BP Apparatus Brain Stimulators Breath Hydrogen (H <sub>2</sub> ) monitor Capnography Cardiopulmonary bypass machine (CPB) CO <sub>2</sub> Monitor Coagulation Analyzer Cold light source Cryo Surgical Appliances (Heating Part) Cryostat CTG Machine Daytona Defibrillator Dental X Ray Diagnostic Muscular Simulator Dialysis Apparatus Diode Laser. Doppler ECG Monitor Echo Cardiograph ECT machine EEG Machine

	<p>Electro and Phonograph (Intra Cardiac)      Electro Cardio Graph Recorder      Electro Myography      Electronic Traction      Endoflator      Endoscopy      EOG Machine      ETO Sterilizer      Field Analyzer      Fetal Monitor      Glucometer      Harmonic Scalpel      Heart-Lung machine      HF Surgical Diathermy      High Pressure Injection Equipment      Hypothermia Appliances      Incubator with CO<sub>2</sub>      Incubator (Stationary and Portable)      Infusion Pumps      Intelligent Tourniquet      Interferential therapy      Invasive Arterial Blood Pressure (IBP)      IVF Work Station      Keratometer      Laser Surgery equipment      Lithotripsy (Impulse Apparatus)      Magnetic Particle Imaging system (MPI)      Magnetic Resonance Imaging system (MRI)      Mammography      Medical Laser Systems      Multiparameter Monitor      Muscles Stimulator (For Diagnostic and Therapy)      Nebulizer      Nerve Stimulators      Noninvasive Blood Pressure      Nuclear Magnetic Resonance Tomography      Oxygen Concentration Monitor      Pacemaker (External)      Pachometer      Patient Monitor      Perfusion Pump      Pertdish Warmer      Photo and Laser Coagulator      Phototherapy Unit      Pneumatic Drill      Pressure Chambers for Hyper Baric Therapy      Pulse Oximeter      Radiant Heat Warmer      Renal Dialysis machine      Respirators ( Not Manual)      Retinal Camera      Shortwave Diathermy      Sigmoidoscopy      Slit Lamp with Ophthalmoscope      Spirometry Devices      Stadiometer   </p>
--	---

	Surgical Diathermy Syringe Pump Test Tube Warmer Therapeutic Ultrasound Device Tonometer Transcutaneous Electrical Nerve Stimulator Tread Mill Trivector Dry Bath Ultrasonic Diathermy Urine analyzer Vascular Infusion System VDRL shaker Ventilator (Adult & Infant) Water Bath Wax Bath Others
Telecommunication equipment (For TEC CAB Designation)	Wire Telephone Equipment G3 Fax Machine Modem Cordless Telephone ISDN Customer Premises Equipment Private Automatic Branch Exchange HF Radio Conferencing and Presentation Equipment Mobile Radio Trunking System Conferencing Equipment VHF UHF Radio System Equipments Equipments Operating in 2.4 GHz and 5 GHz Band IP Terminal Point of Sale Devices Media Gateway DSL Equipments Signalling Gateway Session Border Controller Softswitch Repeater for Cellular Network Base Station for Cellular Network Compact Cellular Network Mobile Handset PON Family of Broadband Equipments Transmission Terminal Equipment IoT Gateway Tracking Device Smart Electricity Meter Smart Watch Smart Camera Satellite Communication Equipments LAN Switch Router End Point Device for Environmental Monitoring/ Feedback Device Media Gateway Infiband Switch IP Multimedia Conferencing Equipment IP Security Equipment Optical Fibre Cable Precision Timing Control

	PTP PMP Microwave Mobile Management Entity SGSN or GGSN BSC RNC Cell Broadcast Centre GMLC HLR AUC HSS eNodeB (ITSAR) Mobile Device (ITSAR) IP Router (ITSAR) P-GW/PDN-GW (ITSAR) UICC (ITSAR) IP Router (ITSAR) Mobility Management Entity (MME) (ITSAR) Cryptographic Controls (ITSAR) Wi-Fi CPEs (ITSAR) Others
Miscellaneous Products	AC and DC Drives Anti-static accessories, wrist strap Electro-magnetic components & equipment Electro-mechanical components & equipment Fire alarm systems Franking machines Harness and cables Lighting equipment, LED display Board Controller Measuring instruments Opto-electronic components & equipment Photo-voltaic equipment Piezo electric devices Telephones/EPABX & Fax machines Transducers Others
Power Supplies & Stabilizers	Charge Controller Inverters Inverters (Charge controller unit) Regulated Power supplies (AC/DC) SMPS power supplies UPS (online/line interactive) Voltage stabilizers (step/servo motor operated) Others
Safety Testing Facility	Abnormal operating and fault conditions Clearances and creepage distances Constructional requirements with regard to the protection against electric shock Electric shock hazard under normal operating conditions Electric strength test Hazardous radiations Heating under normal operating conditions Insulation resistance test Ionizing radiation Laser radiation Mandrel test Measurement of temperature rises Mechanical strength Over current and earth fault protection in primary circuits Protection against hazardous moving parts Protection from electric shock and energy hazards Protection from hazards

	<p>Protection of equipment users from over voltages on telecommunication networks</p> <p>Protection of telecommunication network service persons, and users of other equipment connected to the network, from hazards in the equipment</p> <p>Protection of the telecommunication wiring system from overheating</p> <p>Provisions for earthing and bonding</p> <p>Resistance to fire, Touch current and protective conductor current</p> <p>Ultraviolet light conditioning test</p> <p>Others</p>
Energy Efficiency of Domestic Electronic Appliances	<p>Color TV</p> <p>Computer (Notebooks/Laptops)</p> <p>Ballast (Electronic/ Magnetic)</p> <p>Office equipment's (Printer, Copier, Scanner, MFD's)</p> <p>Solid State Inverter</p> <p>Microwave Oven</p> <p>LED Lamps</p> <p>Others</p>

#### 7.4 Fluid Flow Testing

Group	Sub-group
Air & Gases	<p>Air velocity devices (Anemometers &amp; Pitot tubes)</p> <p>Flow metering devices in pipelines</p> <p>Flow rate controlling valves</p> <p>Flow rate measuring meters</p> <p>Leak rate of gases</p> <p>Others</p>
Liquids	<p>Flow metering devices in pipelines</p> <p>Flow rate controlling valves</p> <p>Flow rate measurement of corrosive liquids</p> <p>Flow rate measuring meters</p> <p>Leak rate of liquids</p> <p>Pumps &amp; turbines</p> <p>Others</p>
Miscellaneous	

#### 7.6 Mechanical Testing

Group	Sub-group
Automotive Components	<p>Bonded Rubber Wheels</p> <p>Complete Vehicle on Chassis Dynamometer</p> <p>Component Testing</p> <p>Internal Combustion Engine</p> <p>Knock Characteristic of Fuel</p> <p>Others</p>
Building, Infrastructure & Construction Materials	<p>Adhesives, Pre-formed Joint Seals, Materials &amp; Fillers</p> <p>Admixture</p> <p>Aggregates, Natural, Crushed, Recycled &amp; Synthetic</p> <p>Coarse Aggregate</p> <p>Fine Aggregate</p> <p>Ballast</p> <p>Bitumen, Modified Bitumen, Bitumen Felts &amp; Bitumen Emulsion</p> <p>Bituminous Mixes &amp; Recycled (RAP) Mix Materials</p> <p>Bituminous Mix/ Bituminous Macadam/ Dense Bituminous Macadam</p> <p>Bricks, Paver Blocks, Pavement Shapes</p>

	<p>Concrete Paving Blocks</p> <p>Precast Hollow and Solid Concrete Blocks</p> <p>Precast Autoclaved Cellular (Aerated) Concrete Blocks</p> <p>Preformed Foam Cellular Concrete Blocks</p> <p>Burnt Clay Building Bricks</p> <p>Pulverised Fuel Ash Lime Bricks</p> <p>Building Lime</p> <p>Cement, Cementitious Materials &amp; Cement Additives</p> <p>Ordinary Portland Cement 33, 43, 53, Grades</p> <p>Ordinary Portland Cement 43S, 53S Grades</p> <p>Portland Pozzolana Cement (Fly Ash Based)</p> <p>Portland Pozzolana Cement (Calcined Clay Based)</p> <p>Portland Slag Cement</p> <p>White Portland Cement</p> <p>Low Heat Cement</p> <p>Rapid Hardening Portland Cement</p> <p>Sulphate Resisting Portland Cement</p> <p>Hydrophobic Portland Cement</p> <p>Super sulphated Cement</p> <p>High Alumina Cement</p> <p>Microfine Ordinary Portland Cement</p> <p>Composite Cement</p> <p>Pulverized fuel Ash</p> <p>Metakaolin</p> <p>Silica Fume</p> <p>Ultrafine Ground Granulated Blast Furnace Slag</p> <p>Cement Concrete Flooring Tiles</p> <p>Fresh Cement Concrete</p> <p>Hardened Cement Concrete</p> <p>Coatings, Membrane &amp; Film Forming Materials</p> <p>Coating Material on Reinforcing Steel</p> <p>Concrete, Mortar, Shotcrete, Grout &amp; Epoxy mixes Concrete Mixers</p> <p>Hot Applied Sealing Compound for concrete</p> <p>Construction Chemicals &amp; Performance Additives</p> <p>Doors &amp; windows, Shuttering, Frames &amp; Formworks</p> <p>Fuel Ash, Fly Ash, Pulverized Bottom Ash &amp; Pond Ash</p> <p>Gypsum Boards, False Ceiling &amp; Cladding Materials</p> <p>Joint Reinforcing Tape, Seals &amp; Modular Joints</p> <p>Preformed Fillers for expansion Joints</p> <p>Joint Treatment Materials for Gypsum Board Construction</p> <p>Plumbing &amp; drainage fittings</p> <p>Pozzolanic materials, Slags, Industrial Waste &amp; Ore Residues</p> <p>Refractory materials, Insulation Profiles &amp; Shapes</p> <p>Tiles- Concrete, Ceramic, Synthetic &amp; Composite</p> <p>Tile adhesive</p> <p>Ready Mixed Building Mortar</p> <p>Block Jointing Mortar</p> <p>Tile Grout</p> <p>Chemical Grout</p> <p>Cement grout (non-Shrink)</p> <p>Curing Compound</p> <p>Integral Cement water proofing compound</p>
--	---

	<p>Ceramic tiles</p> <p>Chequered cement concrete tiles</p> <p>Wooden Flush Door shutter</p> <p>Timber Panelled and Glazed shutters</p> <p>Timber Panelled and Glazed shutters Windows and Ventilator shutter</p> <p>Wooden Flush Door Shutters (Cellular and Hollow Core Type) (Ply wood panels)/</p> <p>Moulded Raised High Density Fibre (HDF) panel Door</p> <p>Solid panel Foam UPVC Door Sutters</p> <p>Integral Water proofing Compounds for Cement Mortar and Concrete</p> <p>Concrete Admixtures Cement and Concrete</p> <p>Mineral wool (RockWoof, Glass wool, Slag wool) &amp; Bonded Mineral Wool-Thermal Insulation</p> <p>Block Board</p> <p>Medium Density Fibre Board</p> <p>Particle Board</p> <p>Pre-laminated Medium Density Fibre Board</p> <p>Prelaminated Particle Board</p> <p>Fibre Hard Boards</p> <p>Shuttering Plywood</p> <p>Veneered Particle Board</p> <p>Veneered Decorative Plywood</p> <p>Marine plywood</p> <p>Plywood for General Purpose</p> <p>Plywood</p> <p>Fire Retardant Plywood</p> <p>High Strength aircraft Ply wood</p> <p>Timber</p> <p>Medium Strength Aircraft Ply wood</p> <p>Reinforcement Steel and FRP &amp; Structural Steel</p> <p>Wall, floor, ceiling &amp; Cladding Panels &amp; Shapes</p> <p>Building Hardware, Fittings &amp; Structural Fixtures</p> <p>Fasteners, Bolts, Nuts, Hooks, Rivettes &amp; Washers</p> <p>Pipes, Cast Iron, Cement, Steel, PVC, HDPE, PP &amp; FRP</p> <p>Pre-stressing Materials &amp; Anchorage Components</p> <p>Reinforced Earth Mixes &amp; RSW Embankment Materials</p> <p>Reinforcement – Steel</p> <p>Retroreflective Signboards, Cones, RPM &amp; Delineators</p> <p>Road Marking Materials Hot &amp; Cold Applied, Tapes</p> <p>Road Marking Paints (Ready Mixed)</p> <p>Thermoplastic Road Marking Material</p> <p>Prestressing Strands H.T Stran/ s /LRPC Strands</p> <p>Anti-Striping Agent</p> <p>Gypsum Building Plaster (Including Light Weight Premix)</p> <p>Coated/Laminated Gypsum Boards</p> <p>Fire resistant Gypsum boards</p> <p>Reinforced Gypsum Boards</p> <p>Plain Gypsum Boards</p> <p>Foundry Sand</p> <p>Granular Subbase</p> <p>Macadam</p> <p>Wet Mix Macadam</p>
--	--

	APP Membrane Refractory Materials Others
Heating, Ventilating, and Air Conditioning (HVAC)	Air Conditioners Condensing Unit Coolers Cooling Towers Heaters Refrigeration Others
Leather and Leather Products	Finished leather Footwears Industrial Products Leather products Semi-finished leather Others
Mechanical Properties of Metals	Biomaterials Copper materials, alloys & products Ferrous materials, alloys & products Metal powders & sintered products Metallic coatings Other Non-Ferrous metals, alloys & products Welds & welded test specimens Others
Metallography Test	Aluminum materials, alloys & products Copper materials, alloys & products Ferrous materials, alloys & products Metal powders & sintered products Metallic coatings Other Non-Ferrous metals, alloys & products Welds & welded test specimens Others
Noise & Vibration	Dynamic Balancing Measurement of Insertion Loss Ducts and Mufflers Measurement of Mechanical Vibrations & Performance Measurement of Noise Reduction of Sound Isolating Enclosures Mechanical Shock Testing Vibration Characteristics of Materials, Components, Assemblies and Structures Vibration Record on Transmission Line Vibration Test on Connection and Relay Others
Paper & Paper products	Paper Paper Board Pulp Pulpwood Others
Performance/Durability/ Safety Test	Domestic Appliances Industrial Equipment /Instruments/Products Medical Equipment /Devices except Implants Scientific or Measuring Equipment

	Others
Plastics and Plastic Products	Decorative laminates Fibre reinforced plastic products Flexible & rigid foams Moulded components Packaging & containers Plastic films Plastic materials & products Plastic pipes and Accessories Plastic sheets Polymeric Products Others
Precious Stones	Gemstones Diamond Studded Jewelry Pearl Others
Properties of Powder Metallurgical Products	Stainless Steel Others
Rubber and Rubber Products	Gaskets, seals & packings Industrial belts Natural rubber & products Synthetic rubber & products Tires Others
Soil and Rock	Clays & Soils Geophysical tests In-situ tests Classification test Stones / Rock Others
Soil- Basic	Water content Specific Gravity – Fine Grained Soil Specific Gravity – Coarse Grained Soil Grain size Analysis – Dry, Wet & Hydrometer Liquid Limit / Plastic Limit Shrinkage limit Light Compaction Heavy Compaction Unconfined Compression Strength Triaxial (UU) Direct Shear test California Bearing Ratio Consolidation Test Free Swell Index
Soil- Advanced	Swelling Pressure Relative Density Test Laboratory Permeability Triaxial (CU) Triaxial (CD)
Soil- Field	Determination of Dry Density of soil in place by Core-cutter Method

	Determination of Dry Density of soil in place by Sand Replacement Method Plate Load Test Cyclic Plate Load Test Pile Load Test A-Vertical Load (Compression) B - Lateral Load C - Pull Out Test (Uplift) Field CBR test Modulus of Subgrade Reaction Electrical Resistivity Standard Penetration Test Dynamic Cone Penetration Test Static Cone Penetration Test Field Vane Shear Test
Rock- Basic	Compressive Strength Water Content, Density & Porosity Point Load Index Test
Rock- Advanced	Modulus of Elasticity Slake Durability Index Brazilian Test
Solar Panel	Others
Sub Assembly/Ancillaries /Accessories	Bearing Compressors Cutting & hand tools Engines Lifting gear, chain, wire ropes & strands Pipes, hoses, valves & fittings Pumps Springs Springs & energy absorbing devices Threaded fasteners Others
Textile Materials	Agro Textiles Automotive Textiles Carpet and Rugs Coated fabrics Fabrics (Woven and Non-Woven) Fibre ropes & cords Fibres Garments and Apparel Geo Textiles Handloom textiles Industrial textiles Jute & its products Khadi textiles Medical Textiles Packaging Textiles Protective Textiles Sports Textiles Technical Textiles Upholstery fabrics (other than automotive)

	Wool & its products Yarns Zippers & fasteners Others
Thermal Tests	Ageing Test In Combustibility Test Insulating Value Thermal Conductivity Thermal Shrinkage Others
Toys and Similar products	Others
Wood and Wood Products	Plyboard Timber Others
Miscellaneous	

#### 7.7 NDT Testing

Group	Sub-group
Building Materials – Reinforced Concrete Structures	Carbonation test Cover Meter Test Crack width measurement in reinforcement concrete structures Deflection measurement data (Load Test) Half Cell Potential difference test Pile Integrity test Rate of Corrosion test by LPR (Linear polarization resistance) Rebound Hammer Test Ultrasonic Pulse Velocity Tests Others
Metals and Alloys	Eddy Current Testing facility Emerging Areas Testing Facility Leak Testing Facility Magnetic Particle Testing Penetrant Testing Facility Radiography Testing Facility Ultrasonic Testing Facility Under Water Testing Facility Others
Miscellaeous	

#### 7.8 Optical & photometry Testing

Group	Sub-group
Colorimetry	Colour temperature Brightness temperature Chromaticity of light sources Colour of signals or surfaces Colour of pigments or paints Food colours Textile colours

Fibre optics	Fibre (core/clad) diameter and eccentricity Refractive index profile Mode field diameter (spot size) Numerical aperture Cut-off wavelength Bandwidth chromatic dispersion Attenuation Back scatter measurement Birefringence measurement
General tests of Optical instruments	Dimensional measurements Optical aberrations Numerical aperture Shutter speed Wavelength calibration Veiling glare Resolution M.T.F.
Lasers	Laser power Laser energy Angular divergence and beam spot size Output wavelength Coherence (Spatial,temporal and mutual) Polarisation Mode spectrum (including stability and reproducibility) Noise amplitude Noise Phase Modulation
Micrometrology	Dimensional measurements Optical aberrations Numerical aperture Shutter speed Wavelength Veiling glare
Ophthalmic lenses	Power spherical Power cylindrical Power prismatic Axis and centering Spectral transmission Photochromic glass colour building time Photochromic glass fading time
Optical components & systems	Flatness and parallelism Sphericity Prismatic angle Surface quality Aperture Field of view Focal length Optical aberration Resolving power Magnifying power MTF

Optical materials	Refractive index Material dispersion Material strain Scattering & Homogeneity Transmittance Reflectance Bubbles & seeds Birefringence
Photometry	Luminous intensity Intensity distribution from luminaires Illuminance and its distribution Luminance and its distribution Luminous output Life tests and performance of lamps

Photosensitive films, places &detectors	Sensitivity/speed Emulsion thickness Granularity Resolution H & D curve (gamma) Spectral response Quantum efficiency Modulation transfer function Noise effective power
Polarimetry	Optical rotation Rotatory dispersion Absorption coefficient Phase change on reflection Stokes parameters
Radiometry	Radiant intensity Irradiance (total/spectral) Emittance (Spectral/total) Spectral reflectance Spectral transmittance Spectral absorptance
Thin film optics	Reflectance Transmittance Polarisation changes Bandwidth Hardness Scattering

### 7.9 Radiological Testing

Group	Sub-group
Environment (Radioactive contaminants)	Air Air Filters Liquid effluents Ores, Minerals & Metals Soil, Vegetation, Biota Wipes, swabs Others

Food and Agriculture Products (Radioactive contaminants)	Bakery & Confectionary Crops & Crops produce Marine foods Meat & Meat products Milk & Milk products Poultry products Spices & food ingredients Others
Radiation Monitors	Area survey instruments Control monitors Environmental radiation monitors Fixed monitors Personnel monitoring dosimeter Therapy level dosimeter Others
Radiation Sources	Accelerators Beam welding equipment Brachytherapy Cesium machines Cobalt machines Diffraction X-ray machines Electron Industrial irradiators Industrial Accelerators Isotopic sources used in industrial gauges Isotopic sources used in medical brachy therapy Medical Accelerators Neutron generators Simulators Others
Radiological Equipment and Nucleonic Equipment	Gamma switches Industrial gamma radiography Industrial irradiators Liquid scintillation counter Medical gamma camera Medical spectrometer Nucleonic level gauges Nucleonic moisture and density gauges Nucleonic weighing machines Radiography camera RIA counter Smoke detectors containing sources Thickness gauges Others
Water (Radioactive Contaminants)	Drinking water Packaged drinking water Treated water Water for Industrial use Others
Miscellaneous	

## 7.10 Thermal Testing

Group	Sub-group
Ablative properties	Decomposition (pyrolysis temperature) Ablation temperature Heat of pyrolysis Heat of ablation Insulation index Arrhenius kinetic constant
Calorific values	Calorific value of solid fuels Calorific value of liquid fuels Calorific value of gaseous fuels
Combustion properties	Heat of combustion Thermal stability -Time/temp rating Incombustibility Fuel burning properties
Heat flux	Heat flux
Latent heat	Latent heat of melting Latent heat of vapourisation
Radiation properties	Emissivity (Total hemispherical emittance and total normal emittance) Reflectivity. Absorptivity. Solar Absorptivity. Black Body Temperature.
Rate constant	Peserve
Specific heat	Specific heat of metals and alloys. Specific heat of non-metallic solids. Specific heat of liquids. Specific heat of gases and gaseous mixtures.
Thermal Conductivity	Thermal Conductivity of metals and alloys. Thermal Conductivity of composite, ceramics, refractories, plastics, etc. Thermal conductivity of honeycomb materials, foam, garnulor and fibrous insulations. Thermal conductivity of liquids. Thermal conductivity of gases and gaseous mixtures. Thermal conductivity of colloidal solutions & slurries.
Thermal diffusivity	Thermal diffusivity of metals and alloys. Thermal diffusivity of composite ceramics, refractories, plastics, etc. Thermal diffusivity of honeycomb, foam, granular and fibrous insulations. Thermal diffusivity of liquids. Thermal diffusivity of gases and gaseous mixtures. Thermal diffusivity of colloidal solutions and slurries.
Thermo-Mechanical Properties	Bulk modulus for liquids Bulk modulus for gases Coefficient of linear expansions/contractions

### Scope of FDAS (Calibration Laboratories in the following fields).

#### 8.0 Chemical

#### 8.1 Electro-technical

#### 8.2 Fluid Flow

- 8.3 Mechanical**
- 8.4 Optical & Photometry**
- 8.5 Radiological**
- 8.6 Thermal**
- 8.7 Medical Devices**

## **9.0 Fields have been divided into groups.**

### **9.1 Groups in Chemical Calibration**

- 9.1.1 Calibration of equipment like;
  - pH meter
  - Conductivity meter
  - Total Dissolved Solids (TDS) meter
  - Turbidity meter
  - Dissolved Oxygen
  - Refractive Index
  - Salinity tester
  - Breath alcohol tester
  - Oxygen Reduction Potential (ORP) meter
  - Gas detector/analyser
  - Stack emission analyzer
  - Flame Photometer
  - Elisa Reader
- 9.1.2 Others

### **9.2 Groups in Electro-technical Calibration**

- 9.2.1 Direct Current: Voltage, Current, Resistance, Resistance ratio and Power
- 9.2.2 Alternate current: Voltage, Current, Power & Energy, Phase angle & power factor, voltage & current ratio, resistance, inductance, capacitance, dissipation factor etc. up to 1 kHz.
- 9.2.3 Magnetic measurement: flux density, field strength etc.,
- 9.2.4 Electrical Equipments: CT, PT, Oscilloscope, CRO, W Bridge
- 9.2.5 Low frequency: Voltage, current, power, ratio and attenuation, resistance, capacitance and inductance, time and frequency, modulation index/distortion and noise audio power, sound pressure level and impedance related parameters including phase angle
- 9.2.6 High frequency
- 9.2.7 Special HF Measurements: EMI/EMC related parameters including field strength and power density etc.
- 9.2.8 Temperature Simulation (all thermocouples)
- 9.2.9 Others

### **9.3 Groups in Fluid Flow Calibration**

- 9.3.1 Flow rate by mass
- 9.3.2 Flow rate by volume
- 9.3.3 Quantity by mass
- 9.3.4 Quantity by volume
- 9.3.5 Velocity at a point for gases only
- 9.3.6 Mean velocity in the closed conduit as well as open channel for water and gases
- 9.3.7 Viscosity of gases and liquids

### **9.4 Groups in Mechanical Calibration**

- 9.4.1 Dimension
  - Length standards
    - Wavelength/Optical frequency standard, line standards, measuring tapes, end standards, slip or block gauges, length bars, linear scale.
    - Instruments and gauges for measuring length

Angle gauges, circular scales, indexing tables, polygons, levels, sine bars, autocollimators  
engineers' squares, cylindrical squares, angle plates, bevel protractors, sine centers,  
combination set, sine table, spirit level, electronic level, inclinometers.  
Plug and ring screw gauges, snap gauges, thread diameter and pitch measuring instrument, profile  
gauges.  
Surface plates, straight edges, parallels.  
Standards and measuring instruments for surface finish. Form  
deviations  
Gears, test sieves, M/C tools

#### 9.4.2 Mass & Volume

Weights/Standards of mass  
Balance or other weighing devices  
Volumetric measures

#### 9.4.3 Density

Hydrometers  
Density measuring instruments  
Specific gravity

#### 9.4.4 Moisture

Moisture meters  
Moisture balance

#### 9.4.5 Force

##### 9.4.5.1 Force

Proving devices  
Force measuring devices.  
Force Machines

##### 9.4.5.2 Hardness

Hardness testing machines, Brinell  
Hardness testing machines, Vickers  
Hardness testing machines, Rockwell  
Hardness Standards Diamond and Ball Indenters  
Microhardness, Knoop Hardness, Durometers  
Leeb hardness and Rubber hardness shore A and D

##### 9.4.5.3 Impact

Izod impact testing machines  
Charpy impact testing machines

##### 9.4.5.4 Torque

Torque tester, torque wrench, torque measuring devices, Torque machines, torque generating  
devices.

#### 9.4.6 Pressure & Vacuum

Pressure  
Differential Pressure  
Vacuum  
Pressure Gauges, Dead weight tester, instruments, Barometer

#### 9.4.7 Ultrasonics & Vibration

Intensity  
Total power

Vibrational amplitude  
Velocity  
Attenuation

#### 9.4.8 Acoustics

Pressure and power  
Vibration amplitude acceleration  
Attenuation  
Frequency  
Noise  
Velocity  
Others

#### 9.4.9 Speed & Acceleration

### **9.5 Groups in Optical & Photometry calibration**

#### 9.5.1 Photometry

Luminous flux  
Luminous intensity  
Luminance  
Illuminance

#### 9.5.2 Radiometry

Radiance  
Irradiance  
Emittance

#### 9.5.3 Spectro radiometry

Reflectance  
Transmittance  
wavelength

#### 9.5.4 Colorimetry/Chromometry

Color  
Color distribution  
Color correlated temperature

#### 9.5.5 Polarimetry

Polarization

#### 9.5.6 Materials, Optical Components and Systems

Refractive index  
Radius of curvature  
Focal length  
Flatness  
Laser power  
Fiber Optics Attenuation

### **9.6 Groups in Radiological calibration**

#### 9.6.1 Activity of Radionuclides

#### 9.6.2 Yield of neutron sources

- 9.6.3 Thermal neutron flux density
- 9.6.4 Exposure Dose and Dose equivalent

## **9.7 Groups in Thermal calibration**

- 9.7.1 Temperature
  - Contact Type
  - Non-Contact Type (IR/Optical)
- 9.7.2 Humidity

## **9.8 Groups in Medical Devices calibration**

### **9.8.1 Discharge Equipment/Devices**

- Suction pump
- Flow meter with humidifier
- Pressure gauge of oxygen cylinder
- BP apparatus
- Nebulizer
- Syringe pump
- Infusion pump
- Enteral feeding pump
- CPAP
- BiPAP
- Boyles Apparatus
- Anesthesia machine
- Others

### **9.8.2 Patient conditioning/Maintenance**

- Incubator
- Autoclave
- Defibrillator
- Ventilator
- Electro surgical unit/Diathermy machine/Cautry machine
- External pace maker
- Electronic tourniquet
- Dialysis machine
- Heart lung machine
- Patient warmer
- OT Table
- Radiant warmer
- Irradiance meter
- Phototherapy unit
- Others

### **9.8.3 Monitoring unit**

- Patient monitors
- Apnea monitors
- Fetal monitor
- Therapeutic stimulator
- Weighing scale
- Hematology analyser
- Others

### **9.8.4 Imaging/Plotters**

- Trans illuminator light source
- EEG
- Fetal Doppler
- ECG
- X-Ray Diagnostic equipment

Others

## **10.0 Scope of FDAS (Medical Laboratories in the following fields)**

- 10.1**Clinical Biochemistry
- 10.2** Clinical Pathology
- 10.3** Hematology and Immunohematology
- 10.4** Microbiology and Serology
- 10.5** Histopathology
- 10.6** Cytopathology
- 10.7** Genetics
- 10.8** Nuclear Medicine (in-vitro tests only)

## **11.0 Guide to make application for accreditation.**

- 11.1** Applicants are advised to submit a hard copy of its application, lab's Management System Manual, and FDAS Check list-1 (FDAS 111/ FDAS112), with soft version of the same.
- 11.2** Testing Laboratories operating in more than one field of testing are required to submit a single application by separating the details of the scope field-wise with respective details of Scope, Personnel and Equipment sequentially, for each field.
- 11.3** Testing laboratories/CABs involved in product testing are mostly multi-disciplinary laboratories and are required to apply for each field they operate in the same application. As an example.
  - Textile & Leather laboratories to apply for Chemical and Physical (Mechanical) testing.
  - Metallurgical laboratories to apply for Chemical, Mechanical & NDT testing.
  - Plastic laboratories to apply for Chemical, Mechanical, Optical, NDT testing etc.
  - Building/Construction material laboratories to apply for Chemical, Mechanical, NDT testing etc.
  - Environment, Pollution, Forensic, Environmental testing laboratories to apply for each field in which they operate.
- 11.4** Applicant laboratories are advised to seek accreditation for only those parameters for which resources and competence are available.
- 11.5** Calibration laboratories, when operating in more than one field of calibration, are to apply field wise, by defining scope of calibration.
- 11.6** Medical laboratories to apply for the field(s) they operate and defining scope of test.
- 11.7** Applicants are advised to read the relevant documents available at the website of FDAS, including its policy documents.
- 11.8** Applicant must ensure that accreditation requirements have been addressed prior to the commencement of assessment activities for accreditation of applied scope.

**Note:** Applicant laboratory not providing the required information till three months from the date of FDAS letter, would be treated as closed. However, it can be revived on request by paying half of the application fee, till one year from the date of FDAS letter.

## **12.0 Evaluation of competence**

### **Steps Involved in assessment of the competence of a laboratory.**

- i. On receipt of accreditation application, it is acknowledged.
- ii. As a policy FDAS does not do preliminary visit unless requested.
- iii. First time applicants are subjected to initial assessment by an assessment team.

Determining laboratory's competence involves assessment by a team lead by Lead assessors and relevant expert assessors. Assessment involves examining documented management system for its compliance to ISO/IEC 17025/ ISO 15189, laboratory records to ensure its implementation, witnessing the tests/calibrations, interviewing the laboratory personnel, examination of laboratory's technical records from applied scope etc.

Where non-conformities are found, laboratory is given time (not more than 3-months) to take the required corrective action, for submission of the documentary evidence on corrective action taken, to the concerned member of the assessment team, who take the decision about closer of the non-conformity and inform FDAS. Thereafter FDAS takes the decision for grant of accreditation based on assessment findings.

Initial accreditation is granted for two years, and accredited laboratories/CABs are subjected to onsite surveillance around the middle of the accreditation cycle of two years to verify their continued compliance with FDAS requirements. To ensure continuity in accreditation, CABs/Laboratories are advised to apply for re-assessment two months before the expiry of accreditation. (The accreditation cycle is two years).

Reassessed CABs/laboratories are subjected to desktop surveillance around the middle of the accreditation period of two years.

As per FDAS norms accreditation status would remain valid, till 2 months after the expiry of validity period of accreditation.

### **13.0 PT/ILC requirement:**

The minimum requirements for proficiency testing are given below.

- One PT/ILC activity from each applied field prior to gaining accreditation.
- One PT/ILC activity relating to each group of laboratory's scope of accreditation at least every four years.

### **14.0 FDAS Policy on Legal Entity\***

#### **The Policy of FDAS on Legal Entity is as follows.**

- Establishing Legal Entity for an institution is the means to provide life to an institution which can sue & can be sued in a court of law, by an aggrieved party.
- The mechanism of achieving Legal Entity is available under umbrella of the Central Govt./ State Govts/quasi governments and through Govts, designated agencies like Registrar of companies, Registrar of Societies, and in case of Trusts by Tehsildar.
- The status of Legal Entity to CABs is achieved by getting the permission of governmental authorities for performing defined scope of activities and for laboratories it is defined in terms of scope tests and/or calibrations intended to be performed, besides others.
- Public Limited companies, Private Limited Companies, Corporations, NGOs registered with Society of Registrar and Trusts recognized by appropriate government authorities, come under the category that have acquired legal status.
- Proprietorship firms approved and registered with the appropriate Govt. Dept., for the conduct of defined activities are considered to have acquired legal status.
- Self-proclaimed/declared proprietorship or partnership firms without registration with appropriate authority are not considered of having acquired legal status.
- Laboratories that are part of large organizations, which have a legal identity, inherit the legal status of the parent organization.

- Government laboratories inherent the legal entity and acceptable to FDAS.

Note 1: Opening of bank account or paying taxes has nothing to do with legal entity.

Note-2: Legal entity of a laboratory makes it legally responsible for its laboratory activities and its accreditation status ensures the same to its users globally. This clause of the standard safeguards the interest of the users of the accredited laboratories.

Note-3: Laboratories registered by MSME is the recognition for its category as per MSME rules. MSME recognition does not provide legal status.

**\*Definition of Legal Entity:**

The term Legal Entity refers to any organization which is constituted as per the regulations and laws under the Govt. of India. A Legal Entity could be an individual, group of persons, or organization that has legal rights and obligation related to the agreements, contracts, payments, penalties etc.

**15.0 Useful information to Laboratories:**

Accredited laboratories/CABs are entitled to use FDAS symbol subject to compliance of the “Terms and conditions for use of FDAS symbol by laboratories” and FDAS symbol can be obtained from FDAS by the accredited CABs/Laboratories.

**15.1 Initial Assessment**

The term Initial assessment is used for first time applicant.

**15.2 Reassessment**

Already accredited laboratories are required to apply for reassessment.

**15.3 Validity of accreditation**

Accreditation given is valid for a period of two years.

**15.4 Expansion in scope of accreditation:**

15.4.1 When the Application for expansion of the scope of accreditation is from same field/group, FDAS seeks the evidence on resources and competence, to determine, if the site visit is required. If the documentary evidence found to be enough, the accreditation is possible without organizing lab visit.

**Example: A mass, pressure, temperature calibration lab can expand its range, by procuring required resources.**

15.4.2 Expansion of scope of accreditation from new field/ group would require on site assessment.

15.4.3 All midterm accreditations would be co-terminus, with main accreditation.

**15.5 Duties & Rights of FDAS**

**15.5.2 Duties of FDAS:**

- i. Permitting lab's operations from new premises, subject to the compliance of its shifting norms.
- ii. to accept the complaints from laboratories/CABs and public and to communicate the decision intime.
- iii. to accept appeals from laboratories/CABs and communicate the decision intime.
- iv. to take feedback from stakeholders when criteria is intended to be revised.
- v. to give enough time when there is criteria-change for its implementation.
- vi. provide accreditation services without discrimination and maintain impartiality.
- vii. to protect confidentiality
- viii. to maintain MRA with APAC/ ILAC.

### **15.5.3 Rights of FDAS**

- i. Terminate, withdraw, suspend accreditation granted to laboratories/CABs, on violation of terms and conditions.
- ii. Revise the norms of accreditation fee and other related financial aspects from time to time.

### **15.6 FDAS Norms for the reproduction of FDAS symbol & FDAS symbol combined ILAC MRA mark**

It is not mandatory for accredited laboratories to use the FDAS symbol & FDAS symbol combined ILAC MRA mark, but laboratories using must comply to FDAS 132 Terms and conditions for use of FDAS symbol & FDAS symbol combined ILAC MRA mark by laboratories.

## **16.0 Conditions to be met by CABs when shifting of the location of CAB is involved.**

**16.1** The laboratory should inform FDAS well in advance, before shifting the location of CAB with the following information.

- Date(s) of shifting.
- Address of new location with documentary evidence for the right to use the premises.
- With applicable fee.

**16.2** After shifting to new location, Laboratory should.

**16.2.1** Ensure re-calibration is completed where it is likely to be disturbed the traceability of measuring devise/equipment in transportation, by getting the calibration of equipment or by verification through CRMs/BNDs\*

**16.2.2** Ensure that environmental conditions are met as per requirement.

**Note:** Documentary evidence should suffice (including Documentary evidence to display right to use the new premises), but in certain cases a visit by FDAS may be required. In view of this, interested CAB should remain in touch with FDAS, so that FDAS can act in time.

**16.3** After completion of shifting, FDAS is to be informed about the date from which it intends to commence its commercial services for its customers for the approval of FDAS.

FDAS approval involves issue of revised accreditation certificate, scope to indicate change of address.

## **17.0 ISO/IEC 17025:2017 & Interpretation of following clauses:**

### **17.1 Personnel Competence**

#### **clauses 6.2.2:**

“The laboratory shall document the competence requirements for each function influencing the results of laboratory activities, including requirements for education, qualification, training, technical knowledge, skills and experience”.

**Explanation:** Since FDAS is not defining competence norms for laboratory's personnel, laboratory to define the competence for each level of function in terms of education, qualification, training, technical knowledge, skills, and experience.

FDAS determines adequacy of the competence norms defined by laboratory.

**Note:** FDAS does not approve the authorized signatory to the test or calibration certificates. It is for the laboratories to authorize its personnel to release the test or calibration certificate based on its own competence norms.

### **17.2 Training**

### **Clause (6.2.5 c) "Training of Personnel"**

FDAS gives due recognition to in-house trainings given by competent laboratory personnel.

### **17.3 Equipment**

#### **clauses 6.4.2:**

When the laboratory uses equipment outside its permanent control, it shall ensure that the requirements for equipment of this document are met.

#### **Applicability of the above clause:**

In those situations, where Lab's own equipment has gone out of order, in the middle of testing and customer's need must be met, laboratory can use equipment outside its permanent center, subject to compliance of ISO/IEC 17025: 2017, Example: weighing balance.

### **17.4 Validity of Results:**

#### **Applicability of Clause 7.7.1:**

Laboratories to comply with the requirement of ensuring validity of results from the options that are listed option a) to k), of the clause and it is not necessary to comply to all. i.e., a) to k).

### **18.0 Complaints**

Laboratories & its stakeholders are free to lodge a complaint to FDAS on any of their concerns, FDAS would process the complaint as per its procedure. Procedure for Complaints is available on the website of FDAS. Complainants are advised to address their complaint to the Quality Manager, FDAS.

### **19.0 Appeals**

Laboratories have the right to Appeal against the adverse accreditation decision of FDAS and also its decision on complaints made to it, and such appeals are handled as per FDAS procedure for handling appeals, which can be seen at FDAS website. Appellants are advised to send their appeals to Quality Manager, FDAS.

### **20.0 Steps Involved in getting Accreditation:**

#### **Stage I: Preparing the laboratory for Accreditation:**

Laboratory management to nominate a person to coordinate activities related to accreditation including the following.

- Determines the gaps in the existing documented management system against the requirement of ISO/IEC 17025 or ISO 15189, using applicable checklist - 1, (available at [www.fdasindia.org](http://www.fdasindia.org)) & bridge the gaps if any.
- It is mandatory to have documented management system as per the requirement of ISO/IEC 17025/ISO 15189, which can be documented by the laboratory in its manual (Quality manual or Laboratory manual), procedures, Instructions, log-sheets etc.

#### **Stage II: Submission of application to FDAS**

When documented management system complies to the requirement (ISO/IEC 17025 or ISO 15189), submit application for accreditation along with

- Applicable fee
- Checklist – 1(ISO/IEC 17025)- FDAS 111/Checklist-1 (ISO-15189) – FDAS 112

- Management System Manual
- FDAS – 131 (Terms & conditions of FDAS to maintain accreditation)
- FDAS – 132 (Terms and conditions for use of FDAS symbol L & FDAS symbol combined ILAC MRA mark by laboratories)
- FDAS – 138 (Legally enforceable agreement between FDAS and its accredited laboratories)

### **Stage III: Initial Assessment**

First time applicants are subjected to initial assessment, however if applicant request for preliminary visit, FDAS is open to it, to determine the preparedness of the laboratory, through LA, & as non-consultant activity.

- i. On agreed dates initial assessment is organized by Dealing Officer by constituting a team consisting of lead assessor and technical assessor(s).
- ii. Assessment team lead by LA, conducts the assessment which involves examination of documents, work records, witnessing the test/calibration, interviewing of personnel etc. Lab is informed about the corrective action required (CAR) to be taken by the laboratory in agreed time.
- iii. LA sends team's recommendation to the concerned dealing officer, as per the assessment format of FDAS, pending the completion of corrective action required, if any.
- iv. On receipt of the details of the corrective action taken by the laboratory along with documentary evidence, the concerned assessor/LA, would forward to the dealing officer stating that required corrective action (CAR) has been taken and NC(s) is/are being removed/withdrawn.
- v. After examination of the assessment report, and action taken by the lab for corrective action required, dealing officer submits his recommendation for grant of accreditation to Director.
- vi. Director asks QM to examine the compliance to the procedures involved and based on the report from QM, Director takes appropriate action for grant of accreditation to the applicant laboratory, which in turn is communicated to the laboratory through accreditation certificate with the recommended scope of accreditation.

**Note - 1:** Assessors are not empowered to change the applied scope of accreditation while on-site except on technical matters.

**Note-2** Assessors are empowered to give a time of one month for required corrective action, beyond which the dealing officer is to be contacted.

**Note-3:** Laboratories are free to appeal against the findings of the assessment.

## **21.0 Financial obligations on the part of CABs**

### **21.1 Fee Structure: Testing Laboratories in India**

<b>S.No</b>	<b>Testing Laboratory</b>	<b>Fees (Rs)</b>
	Application Fee	
<b>1</b>	Biological Testing for 1 group (Refer 7.1 in FDAS 100)	10,000 /group
	Additional Group	10,000 per group
<b>2</b>	Chemical Testing for 1 group (Refer 7.2 in FDAS 100)	10,000 /group
	Additional Group	10,000 per group

<b>3</b>	Electrical Testing for 1 group (Refer 7.3 in FDAS 100)  Additional Group	10,000 /group  10,000 per group
<b>4</b>	Electronics Testing for 1 group(Refer 7.4 in FDAS 100)  Additional Products	10,000 /group  10,000 per product
<b>5</b>	Fluid Flow Testing for 1 group (Refer 7.5 in FDAS 100)  Additional Group	10,000 /group  10,000 per group
<b>6</b>	Mechanical Testing for 1 group (Refer 7.6 in FDAS 100)  Additional groups	10,000 /group  10,000 per group
<b>7</b>	NDT Testing for 1 group (Refer 7.7 in FDAS 100)  Additional Group	10,000 /group  10,000 per group
<b>8</b>	Optical & Photometry Testing for 1 group (Refer 7.8 in FDAS 100)  Additional Group	10,000 /group  10,000 per group
<b>9</b>	Radiological Testing for 1 group (Refer 7.9 in FDAS 100)  Additional Group	10,000 /group  10,000 per group
<b>10</b>	Thermal Testing for 1 group (Refer 7.10 in FDAS 100)  Additional Group	10,000 /Group  10,000 per group
Annual Accreditation Fee		20,000/Field
Surveillance/Desktop Fee		10,000
Expansion of Scope (New Group/field) (in already accredited group/field)		10,000.00 per group  5,000 per group
Assessment Charges		<ul style="list-style-type: none"> <li>a. Actual expenditure incurred by assessment team on account of their travel, boarding and lodging.</li> <li>b. The honorarium @ Rs.5,000 per day for Lead Assessor (LA) &amp; Rs.4,000.00 per day to each Assessor/ Technical assessor (TA).</li> </ul>
Any Change in the name and /Premises/Legal identity		5,000.00

**In addition to the above-mentioned fee, GST @18% or as applicable from time to time to be paid.**

#### **21.2 Fee Structure – Testing Laboratories in SAR/Other Countries.:**

Request for quotation

#### **21.3 Fee Structure: Calibration Laboratories in India**

<b>S.No</b>	<b>Calibration Laboratory</b>	<b>Fees (Rs.)</b>
	Application Fee	
1	Chemical (all parameters)	40,000
2	Electro-Technical (all parameters)	25,000
3	Fluid Flow (all parameters)	20,000

4	Mechanical – for 2 groups (Refer 9.4 in FDAS 100)	20,000
	Additional groups	5,000 per group
5	Optical & Photometry (all parameters)	20,000
6	Radiological (all parameters)	20,000
7	Thermal (all parameters)	20,000
8	Medical Devices – for up to 2 groups	40,000
	Additional groups	20,000 per group
	Annual Accreditation Fee	20,000 per Field
	Surveillance/Desktop Fee	10,000
	Expansion of Scope fee	
	Addition of new groups (in already accredited field)	10,000 up to 2 groups
	Enhancement of range in existing accredited groups/field	5,000 per group
	Assessment Charges:	<p>a. Actual expenditure incurred by assessment team on account of their travel, boarding and lodging.</p> <p>b. The honorarium @ Rs.5000.00 per day for Lead Assessor (LA) &amp; Rs.4000.00 per day to each Assessor/ Technical assessor (TA).</p>
	Any Change in the name and /Premises/Legal identity	5,000

**In addition to the above-mentioned fee, GST @18% or as applicable from time to time to be paid.**

#### **21.4 Fee Structure: Calibration Laboratories in SAR/Other countries.**

Request for quotation
-----------------------

#### **21.5 Fee Structure for Medical Laboratory**

Medical Laboratory	Fee (Rs.)
Application Fee	20,000
Expansion of Scope Fee	20,000
Annual Accreditation Fees	10,000
Surveillance Fees	10,000
Assessment Charges	Actual expenditure incurred by assessment team on account of their travel, boarding and lodging. The honorarium @ Rs.5000 per day for Lead Assessor (LA) & Rs.4000 per day to each Assessor/ Technical assessor (TA) + applicable GST.
Any Change in the name and /Premises/Legal identity	5,000

Note: 1. Assessment team to be provided single seated air-conditioned room in a hotel/ guest house.

Note: 2. Laboratories are advised to provide return air ticket, local travel and hospitality.

Note: 3. Where direct air connectivity is not available, provide 2<sup>nd</sup> AC return-rail ticket.

Note: 4. Invoice for assessor's honorarium would be raised/sent after completion of assessment.

Note: 5. Accreditation certificate will be issued only after clearance of all dues.

Note: 6 Payments in the form of Crossed Cheque/Demand Draft are to be made in favor of

**"Federation for Development of Accreditation Services" payable at Gurgaon**

(OR)

**NEFT/RTGS to the following A/C**

Name of the A/C	Federation for Development of Accreditation Services
Name of the Bank & Address	Union Bank of India, G/ 6 A, Bestech Square, Sector 56 Gurgaon (Haryana) 122002
A/C No.	579201010050690
Type of A/C	Current
IFSC Code	UBIN0557927
MICR Code	110026093

**22.0 Contact Details:**

**Secretariat:** Federation for Development of Accreditation Services (FDAS)

112, First Floor, Sushant Tower, Sector 56  
Gurgaon- 122011, Haryana, India

**Phone** +91-124- 2570004

**Mob** **+91-9452206485, 8738875300**

**E mail:** [info@fdasindia.org](mailto:info@fdasindia.org), [fdasindia@hotmail.com](mailto:fdasindia@hotmail.com)

**PAN No:** **AAAAAF7420L**

**GST No:** **06AAAAF7420L1ZS**

**Website:** [www.fdasindia.org](http://www.fdasindia.org)

\*\*\*\*\*

## FAMILIARIZATION WITH ACCREDITATION PROCESS

### APPLICANT LABORATORY

