



**National Accreditation Board for Testing
and Calibration Laboratories (NABL)**



Guidance for Classification of Product Groups in Testing & Calibration Field

ISSUE NO.: 01

ISSUE DATE: 12-Feb-2019

AMENDMENT NO.: 02

AMENDMENT DATE: 12-Aug-2019

AMENDMENT SHEET

Sl.	Page No.	Clause No.	Date of Amendment	Amendment	Reasons	Signature QM	Signature CEO
1	8/65, 16/65	1.1.13, 1.2.12	15.05.2019	Deletion of Pet Foods from Food & Agricultural	Typographical error	-Sd-	-Sd-
2	65/66 & 66/66	2.7	12.08.2019	Regrouping for Calibration of Medical devices	Internal review to align with other calibration disciplines	-Sd-	-Sd-

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INTRODUCTION

This is a guidance document which will help laboratories to define its scope as per the recommended classification of product groups across Testing and Calibration fields. Further, this document in no ways implies that NABL grants accreditation for these defined product group(s) only, rather it facilitates the laboratory to categorize its testing /calibration activities & calculation of fees while submission of application towards accreditation.

Note: - Please refer NABL 100 for Fee Structure

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1. TESTING FIELD

1.1. BIOLOGICAL DISCIPLINE

(Classification of Product Groups for Biological Testing)

1.1.1. 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

1.1.2. 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

1.1.3. AYUSH Products

- Ayurvedic drugs
- Herbal formulations
- Homeopathic Drugs

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- Siddha Drugs
- Unani Drugs
- Others

1.1.4. Biocides

- Algicides
- Antiseptics
- Bactericides
- Disinfectants
- Fungicides
- Herbicides
- Insecticides
- Sanitizers
- Sporicides
- Viricides
- Weedicides
- Others

1.1.5. Biological Monitoring

- Blood alcohol
- Drugs & Drug Metabolites
- Fluoride
- Interferons
- Others

1.1.6. Biological Tests on Other Miscellaneous Test Items

- 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

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- Wood & Wooden Products
- Others

1.1.7. Biologically Derived Pharmaceuticals

- Enzymes
- Growth factors
- Hormones
- Monoclonal Antibodies (MABs)
- Recombinant Proteins
- Single Cell Proteins (SCP)
- Vaccines
- Others

1.1.8. Biopesticides and Biofertilizers

- Others

1.1.9. Cell Culture

- Cell permeability test
- Purity
- Others

1.1.10. Cosmetics & Essential Oil

- Perfumes
- Tooth Paste
- Hygiene products
- Cosmetics

1.1.11. 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

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- 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

1.1.12. Pollution & Environment

- Air /surface
- Bio burden Estimation of Classified and non-classified area
- Effluents/Waste water
- Sewage
- Soil
- Solid waste
- Others

1.1.13. 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

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- Herbs, Spices & Condiments
- Honey & Honey Products
- Infant Foods
- Jams, Juices, Sauces & Concentrates
- Meat & Meat Products
- Milk & Dairy Products
- 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

1.1.14. GM Products

- Promoter & Terminator Screening
- Qualitative Detection
- Quantitative Analysis
- Others

1.1.15. Industrial Cultures

- Cultures for baking and brewing
- Dairy Starter Cultures
- Mushroom Spawn
- Probiotics Cultures
- Rhizobial Cultures
- Starter cultures for Effluent Treatment Plant
- Others

1.1.16. Marine /Aqua culture Food Products

- Artemia & Artemia Products

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- Crab & Crab Products
- Fish & Fish Products
- Molecular identification of bacterial, fungal, viral pathogens
- Oyster
- Prawn & Prawn Products
- Shrimps
- Others

1.1.17. Medical Accessories & Surgical products

- Blood Bags
- Catheter
- Condoms
- Copper T
- Hypodermic Needles
- Tubal Rings
- Others

1.1.18. Molecular Analysis (Tests for Various Matrices-Human, Plants, Animal, Microbial)

- 16S r DNA 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

1.1.19. Nutraceuticals & Functional Foods

- Carotenoids
- Dietary Fibres
- Flavonoids
- Fortified Food
- Phytoestrogens
- Prebiotics
- Probiotics
- Soy Proteins
- Others

1.1.20. Nutritional Supplements

- Others

1.1.21. Plants and Plant Materials

- Identification of Bacterial /Fungal/Viral Pathogens
- Others

1.1.22. Residue Analysis

- Antibiotic residue analysis by micro assay
- Others

1.1.23. 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

1.1.24. Seed Testing

- Germination
- GM Testing

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- Purity
- Others

1.1.25. Toxicology

- Acute Toxicity (oral, dermal, inhalation)
- Ame's test
- Bird Toxicity
- Cytogenetics
- Cytotoxicity
- Daphnia Toxicity
- Dominant Lethal Mutation test
- Earthworm Toxicity
- Environmental toxicity/Eco toxicology
- Eye irritation test
- Fish Toxicity
- Mucous membrane irritation test
- Mutagenicity
- Skin sensitization test
- Others

Note:-The parameters such as Acute Oral & Acute dermal toxicity on Pharmaceuticals products as well as the tests on specific pesticide products shall not be considered for accreditation in accordance with ISO/IEC 17025:2017 as these are the studies on long term basis. However, tests on Medical devices including surgical devices may be considered for accreditation as per ISO/IEC 17025:2017.

1.1.26. Veterinary Testing

- Specified tests in biochemistry, haematology, cytopathology, histopathology, serology, parasitologic
- Others

1.1.27. Water

- Distilled /Demineralized Water
- Drinking Water
- Ground Water/ Surface Water
- Packaged Drinking Water

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- 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

1.1.28. Wild Life Forensic

- Others

1.1.99. Miscellaneous

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1.2. CHEMICAL DISCIPLINE

(Classification of Product Groups for Chemical Testing)

1.2.1. Adhesives

- Glues
- Natural gums
- Physical Properties
- Polymer based adhesives (Synthetic)
- Starch based adhesives
- Others

1.2.2. 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

1.2.3. 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

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- Others

1.2.4. AYUSH Products

- Ayurvedic drugs
- Herbal formulations
- Homeopathic Drugs
- Siddha Drugs
- Unani Drugs
- Others

1.2.5. 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

1.2.6. Corrosion tests

- Dezincification Tests
- Salt Spray Tests
- Other

1.2.7. Cosmetics & Essential Oils

- Aromatic chemicals

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- 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

1.2.8. 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

1.2.9. Explosives & Pyrotechnics

- Ammunitions
- Explosive chemicals & allied materials
- Industrial explosives & associated materials
- Physical Properties
- Pyrotechnics
- Others

1.2.10. Fertilizers

- Bio-Fertilizer
- Fertilizer Mixtures
- Fortified Fertilizers
- Macronutrients
- Micronutrients
- Nitrogenous Fertilizers
- Phosphatic Fertilizers
- Potassic Fertilizers
- Others

1.2.11. Fire Fighting Equipment's& Accessories

- Aqueous film forming foam concentrates
- Dry Chemical Powder
- Foam Concentrates
- Others

1.2.12. Food & Agricultural products (except Human Milk)

- 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
- Natural waxes

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- Nuts & nut products
- Oil seeds & by-products
- Poultry & poultry products
- Starch & starch products
- Sugar & sugar products
- Tea
- Tobacco & tobacco products
- Vegetables & vegetable products
- Others

1.2.13. Gases

- Compressed Natural Gas (CNG)/ Piped Natural Gas (PNG)
- Gases for medical use and diving
- Industrial Gases
- Liquefied Gases
- Reference Gases & Mixtures
- Others

1.2.14. Glass

- Clear glass
- Laminated Glass
- Reflective Glass
- Stain Glass
- Textured or pattern glass
- Tinted glass
- Wired Glass
- Others

1.2.15. Hazardous & Restricted Chemicals

- Automatic dispensers
- Computing & communications equipment
- Consumer electronics
- Large household appliances
- Leather products
- Lighting: lamps, lighting fixtures, light bulbs

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- Paints
- Plastics & other polymeric products
- Power tools
- Prints
- Small household appliances
- Textile & Textile products
- Toys and sports equipment
- Zippers
- Others

1.2.16. 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

1.2.17. 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

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- Others

1.2.18. Lac & lac products

- Lac
- Lac products
- Others

1.2.19. Leather

- Finished leather
- Leather accessories
- Leather products
- Semi-finished leather
- Synthetic leather
- Others

1.2.20. Lubricants

- Aviation lubricants
- Insulation oils
- Lubricant additives
- Microcrystalline wax
- Oils & greases
- Solid lubricants
- Others

1.2.21. Marine /Aqua culture Food Products

- Artemia & Artemia Products
- Crab & Crab Products
- Fish & Fish Products
- Oyester
- Prawn & Prawn Products
- Shrimps
- Others

1.2.22. Metallic coatings & treatment solutions

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- Anodising solutions
- Conversion coatings
- Metal finishing materials
- Metallic coatings
- Plating solutions
- Others

1.2.23. 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

1.2.24. Nutraceuticals & Functional Foods

- Carotenoids
- Dietary Fibres
- Flavonoids

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- Fortified Food
- Phytoestrogens
- Prebiotics
- Probiotics
- Soy Proteins
- Others

1.2.25. Nutritional

1.2.26. Supplements

- Others

1.2.27. 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

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- Rock phosphate
- Silica sands
- Tin ores
- Titanium ores
- Tungsten ores
- Zinc ores
- Others

1.2.28. Paints & Surface Coating

- Drying oils
- Gums, driers & paint removers
- Paints & enamels
- Physical Properties
- Pigments & extenders
- Polishes
- Powder coatings
- Resin coatings
- Solvents & thinners
- Varnishes
- Others

1.2.29. Paper and Pulp

- Composite packing material
- Newsprint and board packing material
- Paper
- Paper board
- Pulp
- Pulpwood
- Others

1.2.30. Pesticide Formulations

- Aqueous Capsule Suspensions (CS)
- Aqueous Suspension Concentrates (SC)
- Aqueous Suspo-Emulsions (SE)
- Dispersible Concentrates (DC)

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- 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

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1.2.31. Petroleum and Products

- Aviation fuels
- Crude petroleum
- Liquefied / compressed gases
- Petrochemicals, Petroleum solvents
- Petroleum additives
- Petroleum feed stocks
- Petroleum products
- Waxes and jellies
- Others

1.2.32. Plastic & Resins

- Plastic films
- Plastics & polymers
- Raw materials
- Resin
- Others

1.2.33. 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

1.2.34. Residues in Food Products

- Antibiotics
- Chlorinated dioxins & dibenzofurans
- Halogenated hydrocarbons
- Mycotoxins
- Pesticides

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- Phenols
- Poly Chlorinated Biphenyl
- Polycyclic aromatic hydrocarbons
- Polyhalogenated biphenyls
- Trace metal elements
- Others

1.2.35. Residues in Water

- Antibiotics
- Chlorinated dioxins & dibenzofurans
- Halogenated hydrocarbons
- Mycotoxins
- Pesticides
- Phenols
- Poly Chlorinated Biphenyl
- Polycyclic aromatic hydrocarbons
- Polyhalogenated biphenyls
- Trace metal elements
- Others

1.2.36. Rubber & Rubber Products

- Hard rubber / ebonite Rubber
- Latex goods
- Natural / synthetic Latex
- Natural rubber
- Rubber compound
- Rubber Products
- Rubber vulcanizates
- Synthetic rubber
- Textile rubber composite
- Thermoplastic elastomers
- Others

1.2.37. Soap detergent & Toiletries

- Detergent
- Soaps
- Toiletries
- Wetting & Emulsifying agent
- Others

1.2.38. Soil and Rock

- Clays & Soils
- Stones
- Others

1.2.39. Solid Fuels

- Briquettes
- Charcoal
- Coal
- Coal tar/Bitumen
- Coke
- Oil Shale
- Others

1.2.40. 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

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- Packaging textiles
- Protective Textiles
- Sports textiles
- Technical textiles
- Terry Fabrics & its products
- Yarns & chords
- Others

1.2.41. Warfare Chemicals

- Blister Agents
- Blood Agents
- Choking Agents
- Mustard Agents
- Nerve Agents
- Potential CW Agents
- Psychotomimetic Agents
- Riot Control Agents
- Toxins
- Others

1.2.42. Water

- Construction Water
- Drinking Water
- Ground Water
- Industrial Water
- Irrigation water
- Packaged Drinking water
- Surface Water
- Swimming Pool Water
- Water from purifiers
- Others

1.2.99. Miscellaneous

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1.3. ELECTRICAL DISCIPLINE

(Classification of Product Groups for Electrical Testing)

1.3.1. Bridges & Potentiometers

- AC bridges
- AC potentiometers
- DC bridges
- DC potentiometers
- Ratiometers
- Others

1.3.2. 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

1.3.3. Capacitors

- Capacitance attenuators
- Motor capacitors
- Precision capacitors
- Series capacitors
- Shunt capacitors
- Surge protection capacitors
- Others

1.3.4. Cells and Batteries

- Button cells
- Dry batteries
- Heavy duty batteries
- Lead acid batteries
- Nickel cadmium batteries
- Others

1.3.5. Conductors and Conducting Materials

- Aluminum conductors
- Copper conductors
- Enameled / Insulated wires
- Paper covered conductors
- Winding wires
- Others

1.3.6. 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

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- Water heaters
- Others

1.3.7. 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

1.3.8. 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

1.3.9. Environmental Test Facility

- Acceleration test
- Bump test
- Cold test
- Damp heat test

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- 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

1.3.10. Frequency & Time Measuring Instruments

- Clocks & watches
- Counters
- Frequency meters
- Stop watches
- Tachometers
- Time interval meters
- Wave meters
- Others

1.3.11. 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

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- Wet test
- Others

1.3.12. 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

1.3.13. 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

1.3.14. Lamps, Luminaries and accessories

- Emergency lights
- Flood lights

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- Fluorescent lamps
- General purpose luminaries
- Halogen lamps
- Industrial luminaries
- Lamp holders
- Mercury vapor lamps
- Portable luminaries
- Recessed luminaries
- Road & street light luminaries
- Sodium vapor lamps
- Starters, ballasts & capacitors
- Tungsten filament lamps
- Others

1.3.15. Magnetic Materials

- Flux meters
- Magnetic sheets
- Magnets, solenoids & Helmholtz coils
- Others

1.3.16. Miscellaneous

- AC / DC transfer instruments
- Plastic materials & products
- Others

1.3.17. Power System and Stabilizers

- Stabilized power supplies (AC & DC)
- Servo operated voltage stabilizers (AC)
- Uninterrupted power systems (UPS)
- Others

1.3.18. Resistors, resistance boxes & potential dividers

- AC shunts
- Conductance boxes
- DC shunts

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- Potential dividers
- Precision resistors
- Resistance boxes
- Volt ratio boxes
- Others

1.3.19. Rotating Electrical Machines

- Alternators
- Centrifugal pumps
- Increased safety motors
- Induction motors
- Other pumps & motors
- Self-priming pumps
- Submersible pumps
- Universal motors
- Others

1.3.20. Safety Testing Facility

- Others

1.3.21. 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

1.3.22. Switchgear & Protective Equipment

- Circuit breakers & controllers
- Fuses & fuse links
- Motor starters
- Power system protection relays
- Protection & control relays
- Switches & isolators
- Time switches
- Others

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1.3.23. Transmission Line Equipment and Accessories

- Aluminum conductors
- Busbars
- Bushings
- Circuit breakers
- Conductor & earth wire accessories
- Electric power connectors
- Fuses
- Insulators
- Isolators & air break switches
- Lightning arrestors
- Line traps
- Metal fittings
- Switch gear & control gear
- Transformers & capacitors
- Transmission line spacers / dampers
- Others

1.3.24. Wiring accessories

- Adhesive / Insulating tape
- Cable trunking & ducting systems
- Ceiling roses
- Conduits
- Electronic type fan regulator
- Fittings
- Plugs & sockets
- Switches
- Others

1.3.99. Miscellaneous

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1.4. ELECTRONICS DISCIPLINE

(Classification of Product Groups for Electronics Testing)

1.4.1. Audio Equipment

- Amplifiers
- Buzzers & ringers
- Loud speakers / Head phones
- Microphones
- Others

1.4.2. 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 Φ and 3 Φ)
- TV antenna(dish)
- TV tuner/DTH(set-top box)
- Others

1.4.3. Electronic Components & Equipment Sub Assemblies

- Attenuators/AD-DA converters
- Capacitors
- Connectors
- Deflection yokes
- Diode
- Electronic Ballast
- Electronic Counters
- Filters
- Fuses
- Inductive Coils

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- 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

1.4.4. 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 Filed Immunity Test
- Radiated Emission Test
- Radiated Magnetic Field Emission Test
- Radiated Radio Frequency Disturbances Power Test

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- RF Radiated Susceptibility Test
- Voltage dips, short interruption & voltage variations Immunity Test
- Voltage Fluctuation & Flicker Test
- Others

1.4.5. 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

1.4.6. Equipment Used In Clinical Laboratory

- Auto Clave
- Cell counter

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- 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

1.4.7. 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

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1.4.8. 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 (H₂) monitor
- Capnography
- Cardiopulmonary bypass machine (CPB)
- CO₂ 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
- Electro and Phonograph(Intra Cardiac)
- Electro Cardio Graph Recorder
- Electro Myography
- Electronic Traction

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- 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 CO₂
- 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

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- Patient Monitor
- Perfusion Pump
- Perdish 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
- 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

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1.4.9. Miscellaneous Products

- AC and DC Drives
- Anti-static accessories, wrist strap
- Communication equipment
- 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

1.4.10. 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

1.4.11. 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

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- 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
- Protection of equipment users from over voltages on telecommunication networks
- Protection of telecommunication network service persons, and users of other equipment connected to the network, from hazards in the equipment
- Protection of the telecommunication wiring system from overheating
- Provisions for earthing and bonding
- Resistance to fire, Touch current and protective conductor current
- Ultraviolet light conditioning test
- Others

1.4.99. Miscellaneous

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1.5. FLUID FLOW DISCIPLINE

(Classification of Product Groups for Fluid Flow Testing)

1.5.1. Air & Gases

- Air velocity devices (Anemometers & Pitot tubes)
- Flow metering devices in pipelines
- Flow rate controlling valves
- Flow rate measuring meters
- Leak rate of gases
- Others

1.5.2. Liquids

- Flow metering devices in pipelines
- Flow rate controlling valves
- Flow rate measurement of corrosive liquids
- Flow rate measuring meters
- Leak rate of liquids
- Pumps & turbines
- Others

1.5.99. Miscellaneous

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1.6. FORENSIC DISCIPLINE

Classification of Product Groups for Forensic Science Testing

1.6.1. Biological Sciences

- Biology & Serology
- DNA Fingerprinting
- Others

1.6.2. Chemical Science

- Chemistry
- Explosive
- Narcotics
- Toxicology
- Others

1.6.3. Crime scene Management

- Others

1.6.4. Forensic Electronics & Computer Forensics

- Others

1.6.5. Forensic Psychology

- Others

1.6.6. Physical Science

- Ballistics
- Finger print
- Physics
- Photography
- Question document
- Others

1.6.99. Miscellaneous

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1.7. MECHANICAL DISCIPLINE

(Classification of Product Groups for Mechanical Testing)

1.7.1. Automotive Components

- Bonded Rubber Wheels
- Complete Vehicle on Chassis Dynamometer
- Component Testing
- Internal Combustion Engine:
- Knock Characteristic of Fuel
- Others

1.7.2. Buildings Materials

- Adhesives for Pasting Gypsum Wall Board to Wood Framing
- Admixtures
- Aggregates
- Bitumen
- Bricks & precast blocks
- Building Lime
- Cement
- Coating Material on Reinforcing Steel
- Concrete
- Concrete Mixers
- Construction chemicals
- Doors & windows
- Fly ash
- Gypsum Board Products and Gypsum Lath
- Joint Reinforcing Tape
- Joint Treatment Materials for Gypsum Board Construction
- Plumbing & drainage fittings
- Pozzolanic materials
- Refractory materials
- Tiles
- Reinforcement Steel (rebar)
- Wall, floor & ceiling panels
- Others

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1.7.3. Heating, Ventilating, and Air Conditioning(HVAC)

- Air Conditioners
- Condensing Unit
- Coolers
- Cooling Towers
- Heaters
- Refrigeration
- Others

1.7.4. Leather and Leather Products

- Finished leather
- Footwears
- Industrial Products
- Leather products
- Semi-finished leather
- Others

1.7.5. 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

1.7.6. 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

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- Others

1.7.7. 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

1.7.8. Paper & Paper products

- Paper
- Paper Board
- Pulp
- Pulpwood
- Others

1.7.9. Performance/Durability/ Safety Test

- Domestic Appliances
- Industrial Equipment /Instruments/Products
- Medical Equipment /Devices except Implants
- Scientific or Measuring Equipment

1.7.10. 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

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- Plastic sheets
- Polymeric Products
- Others

1.7.11. Precious Stones

- Gemstones
- Diamond
- Studded Jewelry
- Pearl

1.7.12. Properties of Powder Metallurgical Products

- Stainless Steel
- Others

1.7.13. Rubber and Rubber Products

- Gaskets, seals & packings
- Industrial belts
- Natural rubber & products
- Synthetic rubber & products
- Tyres
- Others

1.7.14. Soil and Rock

- Clays & Soils
- Stones / Rock
- Others

1.7.15. Solar Panel

- Others

1.7.16. Sub Assembly/Ancillaries/Accessories

- Bearing
- Compressors
- Cutting & hand tools
- Engines

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- Lifting gear, chain, wire ropes & strands
- Pipes, hoses, valves & fittings
- Pumps
- Springs
- Springs & energy absorbing devices
- Threaded fasteners
- Others

1.7.17. 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

1.7.18. Thermal Tests

- Ageing Test

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- In Combustibility Test
- Insulating Value
- Thermal Conductivity
- Thermal Shrinkage
- Others

1.7.19. Toys and Similar products

- Others

1.7.20. Wood and Wood Products

- Plyboard
- Timber
- Others

1.7.99. Miscellaneous

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1.8. NON-DESTRUCTIVE TESTING DISCIPLINE

(Classification of Product Groups for Non-Destructive Testing)

1.8.1. 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

1.8.2. 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

1.8.99. Miscellaneous

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1.9. PHOTOMETRY DISCIPLINE

Classification of Product Groups for Photometry Testing

1.9.1. Glasses/ Mirrors

- Mirrors
- Reflectors
- Safety Glass
- Others

1.9.2. Light Sources (Electric Lamp)

- Color Characteristics
- Initial Rating Test
- Life Test
- Luminous Flux Output
- Others

1.9.3. Luminaries

- Ballast Lumen Factor
- Downward & Upward Light Output Ratio (DLOR/ULOR)
- Luminous Intensity Distribution
- MHI Value in Lumens
- Others

1.9.99. Miscellaneous

1.10. RADIOLOGICAL DISCIPLINE

(Classification of Product Groups for Radiological Testing)

1.10.1. Environment (Radioactive contaminants)

- Air
- Air Filters
- Liquid effluents
- Ores, Minerals & Metals
- Soil, Vegetation, Biota
- Wipes, swabs

1.10.2. Food and Agriculture Products (Radioactive contaminants)

- Bakery & Confectionary
- Crops & Crops produce
- Food
- Marine foods
- Meat & Meat products
- Milk & Milk products
- Others
- Poultry products
- Spices & food ingredients

1.10.3. Radiation Monitors

- Area survey instruments
- Control monitors
- Environmental radiation monitors
- Fixed monitors
- Personnel monitoring dosimeter
- Therapy level dosimeter
- Others

1.10.4. Radiation Sources

- Accelerators used in research
- Beam welding equipment
- Brachytherapy after loading systems

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- Caesium machines
- Cobalt machines
- CT scanners
- Dental X-ray machines
- Diagnostic X-ray machines
- Diffraction X-ray machines
- Electron Industrial irradiators
- Industrial Accelerators
- Industrial X-ray machines
- Isotopic sources used in industrial gauges
- Isotopic sources used in medical brachy therapy
- Medical Accelerators
- Neutron generators
- Simulators
- Therapy X-ray machines
- X-ray machines for baggage checking
- X-ray machines used in consumer product testing
- Others

1.10.5. 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

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1.10.6. Water (Radioactive Contaminants)

- Drinking water
- Packaged drinking water
- Treated water
- Water for Industrial use
- Others

1.10.99. Miscellaneous

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2. CALIBRATION FIELD

2.1. ELECTRO TECHNICAL DISCIPLINE

(Classification of Product Groups for Electro Technical Calibration)

- 2.1.1. Alternating Current (< 1 GHz)**
- 2.1.2. Direct Current**
- 2.1.3. Electrical equipment**
- 2.1.4. EMI/ EMC**
- 2.1.5. Miscellaneous**
- 2.1.6. RF/Microwave (1 GHz and Above)**
- 2.1.7. Temperature Simulation**
- 2.1.8. Time & Frequency**
- 2.1.9. Others**
- 2.1.99 Miscellaneous**

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2.2. FUILED FLOW DISCIPLINE

(Classification of Product Groups for Fluid Flow Calibration)

2.2.1. Flow Measuring Devices

2.2.99. Miscellaneous

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2.3. MECHANICAL DISCIPLINE

(Classification of Product Groups for Mechanical Calibration)

2.3.1. Acceleration, Speed&Acoustics

- Acceleration and Speed
- Acoustics
- Others

2.3.2. Density and Viscosity

2.3.3. Dimension (Basic-Measuring Instrument, Gauges etc.)

2.3.4. Dimension (Precision- Precision Instruments and Surface Topology)

2.3.5. Hardness & Impact

- Hardness Testing Machine
- Impact Testing Machine
- Others

2.3.6. Force

- Durometer
- Force Proving Instruments
- Mobile Force Measuring System
- Torque Generating Devices
- Torque Measuring Devices
- UTM, Tension Creep and Torsion Testing Machine
- Others

2.3.7. Mass and Volume

- Volume
- Weights
- Weights Scale & Balance
- Others

2.3.8. Pressure and Vacuum

- Pressure Balance or Dead Weight Tester
- Pressure Indicating Devices
- Others

2.3.99. Miscellaneous

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2.4. OPTICAL CALIBRATION

(Classification of Product Groups for Optical Calibration)

2.4.1. Equipment

2.4.2. Optical

2.4.99. Miscellaneous

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2.5. RADIOLOGICAL DISCIPLINE

(Classification of Product Groups for Radiological Calibration)

2.5.1. Radiological measurements

2.5.99. Miscellaneous

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2.6. THERMAL DISCIPLINE

(Classification of Product Groups for Thermal Calibration)

2.6.1. Specific heat & Humidity

2.6.2. Temperature

2.6.99. Miscellaneous

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2.7. MEDICAL DEVICES CALIBRATION

(Classification of Product for Medical Devices Calibration)

2.7.1 Discharge Equipment/ Devices

S. No.	Equipment/Device
01	Suction Pump
02	Flow meter with Humidifier
03	Pressure Gauge of Oxygen Cylinder
04	BP Apparatus (Sphygmomanometer)
05	Nebulizer (Electric)
06	Syringe Pump
07	Infusion Pump
08	Enteral Feeding Pump
09	CPAP
10	BiPAP
11	Boyles Apparatus
12	Anesthesia Machine

2.7.2 Patient Conditioning/ Maintenance

S. No.	Equipment/Device
01	Incubator
02	Autoclave
03	Defibrillator
04	Ventilator
05	Electro Surgical Unit/ Diathermy Machine/ Cautry Machine.
06	External Pace Maker
07	Electronic Tourniquet
08	Dialysis Machine
09	Heart Lung Machine
10	Patient Warmer
11	OT Table
12	Radiant Warmer
13	Irradiance Meter
14	Phototherapy Unit

2.7.3 Monitoring Unit

S. No.	Equipment/Device
01	Patient Monitors
02	Apnea Monitors
03	Fetal Monitor
04	Therapeutic Stimulator
05	Weighing Scale
06	Hematology Analyser

2.7.4 Imaging/ Plotters

S. No.	Equipment/Device
01	Trans illuminator light source
02	EEG
03	Fetal Doppler
04	ECG
05	X-Ray Diagnostic Equipment

2.7.5 Miscellaneous

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