

**LIST 18 (See S. No. 221 , 222 and 223 of the Table)**

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| <p>(1). Land Seismic Survey Equipment and accessories, requisite vehicles including those for carrying the equipment, seismic survey vessels, global positioning system and accessories, and other materials required for seismic work or other types of Geophysical and Geochemical surveys for onshore and offshore activities</p>   | <p>Destructive Testing, coring, gravel pack, well completion and workover for oil/gas wells including wireline and downhole equipment</p>  | <p>connected equipment; Tanks used for storage of oil, condensate, water, mud, chemicals and related materials</p>  |
| <p>(2) All types of Drilling rigs, jackup rigs, submersible rigs, semi submersible rigs, drill ships, drilling barges, shot-hole drilling rigs, mobile rigs, workover rigs consisting of various equipment and other drilling equipment required for drilling operations, snubbing units, hydraulic workover units, self elevating workover platforms, Remote Operated Vessel(ROV)</p>   | <p>(6) All types of casing pipes, drill pipes, production tubing, pup joints, connections, coupling, kelly, cross overs and swages, Drive Pipes</p>  | <p>(13) All types of fully equipped vessels and other units/equipment required for pollution control, fire prevention, fire fighting, safety items like Survival Craft, Life Raft, fire and gas detection equipment, including H<sub>2</sub>S monitoring equipment.</p> |
| <p>(3)Helicopters including assemblies/parts</p>   | <p>(7) All types of drilling bits, including nozzles, breakers and related tools</p>   | <p>(14) Mobile and skid mounted pipe laying, pipe testing and pipe inspection equipment</p>   |
| <p>(4) All types of Marine vessels to support petroleum operations including work boats, barges, crew boats, tugs, anchor handling vessels, lay barges and supply boats; Marine ship equipment including water Maker, DP system and Diving system</p>  | <p>(8) All types of oil field chemicals including synthetic products used in petroleum operations, oil well cement and cement additives, required for drilling, production and transportation of oil or gas</p>  | <p>(15) All types of valves including high pressure valves</p>  |
| <p>(5) All types of Equipment/units for specialised services like diving, cementing, logging, casing repair, production testing, simulation and mud services, oil field related lab equipment, reservoir engineering, geological equipment, directional drilling,Stimulation, Coil Tubing units, drill stem testing (DST), data acquisition and processing, solids control, fishing(as related to downhole retrieval in oil field operations), well control, blowout prevention(BOP),pipe inspection including Non</p> | <p>(9) Process, production and well platforms for oil, gas and water injection including items forming part of the platforms and equipment required like process equipment, turbines, pumps, generators, compressors, primemovers, water makers, filters and filtering equipment, Telemetry, Telecommunication, Tele-Control and other material required for platforms</p> | <p>(16) Communication equipment required for Petroleum operations including synthesized VHF Aero and VHF Marine multi channel sets</p>  |
| <p>(10) Line pipes for flow lines and trunk pipelines including weight-coating and wrapping</p>  | <p>(11) Derrick barges, Mobile and stationary cranes, trenchers, pipelay barges, cargo barges and the like required in the construction/installation of platforms and laying of pipelines</p>  | <p>(17) Non - directional radio beacons, intrinsically safe walkie-talkies, directional finders, EPIRV, electronic individual security devices including electronic access control system</p>   |
| <p>(12) Single buoy mooring systems, mooring ropes, fittings like chains, shackles, couplings marine hoses and oil tankers to be used for oil storage and</p>  |  | <p>(18) Specialized antenna system, simplex telex over radio terminals, channel micro wave systems, test and measurement equipment</p>  |
|  |  | <p>(19) X-band radar transponders, area surveillance system</p>   |
|  |  | <p>(20) Common depth point (CDP) cable, logging cable, connectors, geo-phone strings, perforation equipment and explosives</p>  |

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|--|--|---|
| (21) Wellhead and christmas trees, including valves, chokes, heads spools, hangers and actuators, flexible connections like chocks and high pressure hoses, shut down panels | (22) Cathodic Protection Systems including anodes  | (24) Sub-assemblies, tools, accessories, stores, spares, materials, supplies, consumables for running, repairing or maintenance of the goods specified in this List |
|  | (23) Technical drawings, maps, literature, Data tapes, Operational and Maintenance Manuals required for petroleum operations |   |

**LIST 19 (See S.No. 225 of the Table)**

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|--|---|---|
| (1) LSI / VLSI tester  | (14) Lithography systems  | (26) Wafer sawing machine   |
| (2) Micromanipulators  | (15) Direct step on wafers / steppers   | (27) Leak detection system  |
| (3) Molecular beam epitaxy system (MBE system)   | (16) X-ray lithography systems  | (28) Clean room air showers   |
| (4) Epitaxial reactors   | (17) E-Beam mask making system  | (29) Particle monitor / counter both air and liquid borne                 |
| (5) Chemical vapour deposition (CVD) system - Low pressure CVD (LP CVD) - Metal organic CVD (MO CVD) | (18) E-Beam direct write system   | (30) Automatic encapsulation system; Automatic marking / branding machine |
| (6) High pressure oxidation systems  | (19) Mask aligners  | (31) Clean room laminar flow air handling system                          |
| (7) Chemical etching systems   | (20) Mask inspection systems (comparators)  | (32) Ultra clean room equipment   |
| (8) Plasma etchers   | (21) Tape automated bonders   | (33) Ultra high purity demineralised water treatment plant                |
| (9) Reactive ion beam etchers (RIBE)   | (22) Laser zappers  | (34) PVDF welding and orbital welding machines                            |
| (10) Reactive ion etchers  | (23) Wafer recognition wire bonders   | (35) Ultra high pure (UHP) gas distribution system                        |
| (11) RF sputtering systems   | (24) Wafer scribe or Wafer slicer or Wafer sawing machine or Wafer fractures or any combination thereof | (36) Toxic gas distribution / monitoring system                           |
| (12) Direct digital control furnaces   | (25) Die bonders or wire bonders or combination thereof   |   |
| (13) Ion-implanters (low/ medium / high current)   |   |   |

**LIST 20 (See S.No. 226 of the Table)**

**(A) Dental equipment, namely:-**

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|---|--|---|
| (1) Air motor / turbine hand piece and control box with foot control , micromotors for dental applications                              | (8) Air turbine head / cartridges :- borden turbines - regular cartridge, borden turbines-silencer cartridge and quiet air turbines - compact miniature standard   | (12) Anaesthetic cartridges for dental use                            |
| (2) Air rotor / turbine complete with or without air compressor   |  | (13) Body contoured self-adjusting electrically operated dental chair |
| (3) Dental engines, for laboratory work or for chair side clinical work on patients   | (9) Dental burs of all varieties of various shapes and sizes - carbide, diamond or steel, Carbon Burrs with Titanium coating, Tungsten Burrs                       | (14) Equipment for chrome cobalt work                                 |
| (4) Dental operating lights and fibre optic lights  | (10) Dental hand pieces, for - air motor, air turbine or drilling engines (clinical and laboratory) for filling, packing and condensation purposes and micromotors | (15) Fibre optic light equipment with attachments for dental work     |
| (5) Ultrasonic dental cleaning system   |  | (16) Porcelain furnace  |
| (6) Ultrasonic scalers of all types   | (11) Endodontic instruments (root canal instruments), broscopes, reamers and files, fillers / wideners and pluggers  | (17) Sand blasting equipment for dental use                           |
| (7) Spot welders for dental use with auxiliary functions, outlet :- annealing jack, heat-treat tables, auxiliary cables or plug-in vise |  | (18) Vacuum investing equipment for dental castings                   |
|   |  | (19) Developing tanks for dental X-ray (automatic and ordinary)       |

**(B) Ophthalmic equipment, namely:-**

- |   |   |                                      |
|---|---|--------------------------------------|
| (1) Projection magnifier for contact lens inspection and verification | (5) Softometer for measurement of the base curve of soft contact lenses | (11) Corneal anesthesiometer         |
| (2) Radiuscope base curve (for measurement of contact lenses)         | (6) Contact lens lathes   | (12) Dark adaptometer                |
| (3) Contact lens thickness measuring gauge                            | (7) Contact lens polishing machines                                     | (13) Glare testing equipment         |
| (4) Stereozoom microscope for inspection of contact lenses            | (8) Ophthalmic operating lights and fibre optic lights                  | (14) Pantoscope                      |
|   | (9) Exophthalmometer  | (15) Cryo-lathe                      |
|   | (10) Ophthalmodynamometer   | (16) Ophthalmic cryo equipment       |
|   |   | (17) CAM stimulator                  |
|   |   | (18) Roper hall foreign body locator |

**(C) Other medical equipment, namely:-**

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|---|--|---|
| (1) High powered X-ray unit more than 50 KW with special attachments for paediatric patients, image intensifiers, TV system and cut film camera | (4) Equipment for computerised intra-operative mapping system                      | (10) Ultramicrotome                             |
| (2) Automatic electronic blood cell counter   | (5) Operating table- electro hydraulic type  | (11) Cardio-tachograph                          |
| (3) Multi channel recorder for cardiac electrophysiology with computerised analysis system including facilities for memory                      | (6) Operating lamps - shadowless   | (12) Intensive care servo-controlled incubator  |
|   | (7) Immuno - fluorescence microscope with or without attached photo microscopy set | (13) Open infant care system with servo control |
|   | (8) Cryostat   | (14) Oxygen analyser                            |
|   | (9) Thermodyne   | (15) Apnea monitor                              |

(16) Non-invasive continuous BP monitor	(44) Ethylene sterilisers (gas)	(73) Tonometer
(17) Transcutaneous oxygen monitor	(45) High pressure, pulsing, electronic controlled autoclaves	(74) Photo-coagulator
(18) 'Filter cartridge' of 'filter self rescuer'	(46) Anaesthesia apparatus	(75) Lithotome
(19) Portable intermittent traction machines	(47) Hypothermia machine	(76) Extracorporeal lithotriper
(20) Burn therapy dressing soaked in protective gel	(48) Respirometer	(77) Calibrated thermo compensated / thermostabilised anaesthetic vapouriser
(21) Cystoscope and colposcope	(49) Pulmonary function test machines	(78) Foetal monitor
(22) Urological X-ray examination table	(50) Capnograph-CO <sub>2</sub> meter blood gas - CO <sub>2</sub> meter gas to gas	(79) Bipolar coagulator and forceps
(23) Bipolar angiography equipment	(51) Oxygen blending mask	(80) Electro-encephalography equipment
(24) Electron microscope	(52) Paediatric anaesthesia set	(81) Doppler carotid scanner
(25) Rotary microtome	(53) Cautery proof cardioscopes with memory	(82) Electromyography equipment and accessories thereof
(26) Billirubinmeter	(54) Dosemeter	(83) Cryosurgery equipment
(27) Fluorescent microscope	(55) Polystyrene phantoms	(84) Trans-cutaneous nerve stimulator
(28) Phase contrast microscope	(56) Water phantom	(85 ) Filters for extra corporal circulation
(29) Inverted microscope	(57) Mould room equipment (including styrofoam gatter)	(86) PET scanner
(30) Caogulometer	(58) Radiation field analyser	(87) Operating microscope for microsurgery
(31) Daree gromel illuminator microscope	(59) Survey equipment (including neutron monitor )	(88) Operating instruments for microsurgery
(32) Densitometer	(60) Densitometer for film densitometry	(89) Cardio-vascular catheterisation lab equipment
(33) Tissue processor	(61) TLD (for internal dosimetry)	(90) Automatic / laser multi image and multi format cameras
(34) Paediatric / neonatal laryngoscope	(62) Isotope calibrator	(91) Bedside arrythmia analyser / monitor
(35) Resuscitator other than compressed air breathing type	(63) Whole body human phantom	(92) High pressure contrast medium injector
(36) O <sub>2</sub> blenders	(64) Angioscope for coronary angiography	(93) Thermal printers, black/white for medical use
(37) Reinforced corrugated tubing	(65) Doppler equipment	(94) Thermal printers, colour for medical use
(38) Automatic plasmapheresis equipment (blood cell separation)	(66) Xeroradiographic equipment	
(39) Gas failure alarms	(67) Urological X-ray examination unit	
(40) Ultrasonic nebulisers	(68) Pressure injector with rapid serial changing unit	
(41) Heat nebulisers	(69) Computerised tread mill	
(42) Local analgesic spray	(70) Vector cardiograph	
(43) Non-re breathing valves	(71) Polygraph	
	(72) Phonocardiograph and systolic time interval equipment	

(95) Optical disc recorders for medical image storage	(108) Urodynamic study	(d) specialised fixtures for orthopaedic and spastic, tetraplegics for manoeuvring and providing dexterity to fingers and wrist
(96) Multichannel patient monitoring system upto three channels provided - (a) system has plug-in module option for any three parameters out of ECG, respiration, BP, pulse and temperature or (b) system has monitoring options for any three parameters out of ECG, respiration, BP, pulse, temperature as well as one or more out of arrhythmia, cardiac output, oxygen and carbondioxide saturation levels	(109) Gamma counter	(e) turning beds for prevention of pressure sores
(97) Brain mapping system	(110) Cell counter	(f) emulsion cushions for tetraplegics and working paraplegics to avoid pressure sores
(98) Evoked potential system	(111) DC Defibrillator for external use	(118) Multichannel (more than 3 channels) cardiac monitoring system with / without central monitoring unit
(99) Holter monitor system	(112) Suction catheter, Epidural catheter, thermolulution catheter	(119) Hyperthermia machine
(100) X-ray tubes and tube inserts for X-ray equipment, CT and Cardiac more than 20/40 KW	(113) Manual skin grafting knife and its disposable blades	(120) Polypropylene mesh for hernia repair
(101) Micro processor controlled high frequency X-ray generator more than 50 KW	(114) Electric dermatome (skin grafting knife) electrically operated (mains battery powered) and its disposable knife blades	(121) Dental X-ray machine
(102) Contrast medium injector with or without ECG trigger	(115) Air driven dermatome (skin grafting knives) operated on compressed air and its disposable knife blades	(122) Digital imaging system for face X-rays
(103) Catheterisation cine film analyser	(116) Mesh graft dermatome for expanding skin grafts, disposable mesh graft carriers for the above	(123) Orthopantom ram (O.P.G.) X-rays for jaws
(104) radiation protection equipment	(117) The following items required by spinal patients and other categories of physically handicapped people :-	(124) Jaw surgery equipment - (a) stryker saws (b) special titanium and tungsten carbide drill bits (c) jaw surgery instruments including special retractors, bone holders
(105) Catheterisation table light (dentalite)	(a) chairs - folding wheel chairs with detachable arms and footrests, special light wheel chairs for easy handling, motorised wheel chairs, special purpose chairs for stairs climbing for tetraplegics and paraplegic workers	(125) ECG transtelephonic recorder / transmitter / recorder-cum-transmitter
(106) Air / power driven drills, saws and reamers	(b) aids for disabled, namely, folding walking frames	(126) Linear accelerator
(107) Automatic percutaneous lumbar disectomy, console and kits	(c) aids to extend reach to pick up small items (with small magnet pick up)	(127) Precision delivery device used for administration of insulin with penfill cartridges such as Novopen

**(D) Other goods, namely:-**

(1) Dental implant	(a) chrome cobalt / nickel chrome / porcelain bond metal / low fusing technique alloy	(7) Dental X-ray film - intra-oral / extra-oral / panoramic / occlusal
(2) Dental cements	(b) dental crowns and artificial teeth	(8) Dental porcelain of all types
(3) Impression materials of all types/ alginate / rubber base / silicon base	(5) Gutta- percha points- dental	(9) Acrylics for dental use - denture base material heat cure and cold
(4) Dental fillings and non precious		

metal for crown / bridge / and cast partial denture-

silver amalgam

cure

(6) Dental investment of all types / phosphate bond / gypsum bond / plaster and stone

(10) Waxes of all types for dental use

**LIST 21 (See S.No. 236 of the Table)**

(1) Capacitors (excluding paper capacitors and power capacitors)

(8) Ceramic / Magnetic cartridges and stylus

(18) (i) Saw filters (ii) Ceramic filter/trap (iii) Delay lines (iv) CRT socket (v) Spark gap (vi) Degaussing coil

(2) Ferrite parts including memory cores and ferrite magnets

(9) Air cored and Ferrite cored transformers

(3) Switches with contact rating less than 5 amperes at voltage not exceeding 250 Volts AC or DC

(10) Microphones /Microphone cartridges

(19) Fibre optics and other optoelectronic parts and devices namely, Couplers, Attenuators, Connectors, Splicers, Multiplexers and Demultiplexers

(4) Connectors

(11) RF/IF coils, Inductance coils, Peaking coils, Tuning coils

(5) Magnetic -Heads (all types)

(12) Antennas

(20) Passive optical parts, namely, Microlens and splitters, Micropositioners, Optical filters and gratings and Phase plates

(6) Loud speakers (cone type)

(13) Relays of contact rating upto 7 amperes

(7) Deflection parts, namely:-

(14) EHT cables

(21) Special purpose optical fibres, namely, polarisation holding fibres, plastic fibres and large core fibres

(i) EHT/LOT/FBT transformers

(15) Level meters/level indicators/ tuning indicators/ peak level meters/ battery meter/ VC meters / Tape counters

(22) Electron guns

(ii) Line driver transformers

(iii) Deflection coil / yoke

(16) Tone arms

(23) Liquid crystal displays

(iv) Linearity coil

(v) Width coil

(17) Microwave passive parts

**LIST 22 (See S. No. 237 of the Table)**

(1) (a) Laser rods - Neodymium: YAG, Neodymium : Glass, Ruby, Erbium : YAG, Ti : Al<sub>2</sub>O<sub>3</sub>, Alexandrite, HO : YAG

(h) Dye cells and laser dyes

(6) Spectroscopic grade pure gases viz., Xenon, Krypton, Fluorine, Argon

(b) Helium- Neon Laser Tubes

(i) Thin film polarisers for visible, near IR region

(7) Vacuum pumps of capacity upto 20 litres per minute

(c) Semi-conductor visible lasers

(j) Electro- optic switches for visible, near IR and 10.6 micrometer region

(8) Quartz and Special glasses

(d) Dielectric coated mirrors for visible , near IR & 10.6 micrometer region

(k) Flash lamps (Xenon, Krypton)

(9) Non linear crystals

(e) Hard dielectric coated optics including thin film polarisers, calcite polarisers and Beam splitters

(l) Arc lamps (Krypton)

(10) Electro- optic and Acousto-optic switches

(f) ZnSe mirrors, ZnSe lenses and ZnSe windows

(m) Second harmonic generation crystals

(11) Special materials, namely, High purity gases, Kovar, Alumina and Zirconia fibres, Recrystallised Alumina Tubes, Optical polishing materials, Optical cleaning material, Dyes and Pitch for optical polishing

(g) Gratings and prisms

(2) Energy storage capacitors

(12) Optical filters

(3)Thyratrons

(4) Photodetectors and photomultipliers

(5) Metering needle valves and pressure indicators

