

393	SITC of Medical Line Valve, As per CE Certified/UL Listed, As per Technical Specifications- Indian 22mm OD at MGMH Petlaburj	3	each
394	SITC of Medical Line Valve, As per CE Certified/UL Listed, As per Technical Specifications- Indian 28mm OD at MGMH Petlaburj	4	each
395	SITC of Bed Head Panel - as per HTM 2022/02-01/ NFPA99C as per enclosed technical specifications at MGMH Petlaburj	2	each
	MGM Hospital, Warangal		
396	Ovum Aspiration Pumps at MGM Hospital	2	No
397	IVF Test tube Warmers at MGM Hospital	2	No
398	DICOM compatible fully digital, compact, portable, Ultrasound Scan Machine Colour Doppler at MGM Hospital	2	No
399	Multipurpose Electro hydraulic with manual override mobile OT Table, with divided leg section suitable for all Gynaecological surgical procedures, complete with 5cm Mattress and corded handset at MGM Hospital	1	No
400	LED procedure Lights Double dome at MGM Hospital	1	No
401	LED procedure Lights Single dome at MGM Hospital	1	No
402	IVF Workstation with LAF at MGM Hospital	1	No
403	IVF Ant vibration Table for procedure at MGM Hospital	1	No
404	CO2 Incubators at MGM Hospital	2	No
405	Trigas bench Top Incubators for Human Embryo culture at MGM Hospital	1	No
406	Trinocular Stereozoom Microscope at MGM Hospital	1	No
407	ICSI Micro manipulator with Inverted Microscope at MGM Hospital	1	No
408	IVF Laser System at MGM Hospital	1	No
409	IVF Thermometer at MGM Hospital	1	No
410	CO2 Cylinder and Manifold at MGM Hospital	2	No
411	CO2 and O2 Analyzer at MGM Hospital	1	No
412	PH Meter at MGM Hospital	1	No
413	VOC Meter for ART Lab at MGM Hospital	1	No
414	Sperm Counting Makler Chamber at MGM Hospital	1	No
415	Binocular Microscope for Semen Analysis at MGM Hospital	1	No
416	Laminar flow cabinet with Andrology Work station at MGM Hospital	1	No
417	Clinical Centrifuge machine for Andrology at MGM Hospital	1	No
418	Dry Incubators at MGM Hospital	1	No
419	Pipetter and Denudation system at MGM Hospital	1	No
420	Pharmaceutical Refrigerator at MGM Hospital	1	No
421	Cryocans with wheels at MGM Hospital	2	No
422	Defibrillator at MGM Hospital	1	No
423	7 Para Patient Monitor at MGM Hospital	2	No
424	Suction machine at MGM Hospital	1	No
425	Anaesthesia Work station at MGM Hospital	1	No
426	Autoclave at MGM Hospital	1	No
427	Operative Hysteroscopy and Resectoscope Set Machine at MGM Hospital	1	No

428	Operative Laparoscopy Set at MGM Hospital	1	No
429	Multifunctional Printer at MGM Hospital	1	No
430	Ultrasound Examination Couch at MGM Hospital	1	No
431	UPS 20KVA with battery backup at MGM Hospital	1	No
432	Laptop for Office usage at MGM Hospital	2	No
433	Reception Table at MGM Hospital	1	No
434	Reception chair at MGM Hospital	2	No
435	Filing Cabinet at MGM Hospital	2	No
436	Patient Seating 3 in 1 model at MGM Hospital	3	No
437	Consultant Chair at MGM Hospital	3	No
438	Patient Chair at MGM Hospital	6	No
439	Small Trolley at MGM Hospital	3	No
440	Big Trolley at MGM Hospital	3	No
441	Wall Storage Cabinets at MGM Hospital	8	No
442	Office Table at MGM Hospital	3	No
443	Consumables and Media for 100 Cycles at MGM Hospital	1	Lot
444	Dismantling, clearing away and carefully stacking useful materials for re-use and disposal of unserviceable materials with 100m lead as directed by Executive Engineer duly taking actual premeasurements before dismantling including all labour charges, etc., complete. Brick Masonry and Existing flooring at MGM Warangal	80	Cum
445	Dismantling clearing away and carefully stacking useful materials for re use and disposal of unserviceable materials with 100m lead as directed by Executive Engineer duly taking actual premeasurements before dismantling including all labour charges etc complete for Flooring at MGM Warangal	400	Sqm
446	Dismantling doors, windows and clear storey windows, Ventilators etc., wood or steel shutters including Chowkhats, architraves, hold fasts and other attachments etc., and stacking them within 100m lead including labour charge etc., and complete for finished item of work. Not exceeding 3 sqm in area: Doors 1.00x2.60M at MGM Warangal	11	No
447	Dismantling doors, windows and clear storey windows, Ventilators etc., wood or steel shutters including Chowkhats, architraves, hold fasts and other attachments etc., and stacking them within 100m lead including labour charge etc., and complete for finished item of work. Exceeding 3 sqm in area : Doors 1.50x2.60M at MGM Warangal	2	No
448	Conveyance of un-useful excavated earth to a distance of 15 KM for disposal including hire charges of T and P, labour charges etc., complete for finished item of work. Dismantled Brick masonry and Existing flooring at MGM Warangal	120	Cum

449	Brick masonry for panel walls in superstructure with CM 1:8 prop: Aerated Cellular Autoclaved Concrete Blocks conforming to IS:2185 Part-3 - 1984 and IS:6441-1972 of Compressive strength 3 N/mm ² 600 x 200 x 200 mm including cost and conveyance of all materials like cement, screened sand, bricks, water etc., to site, including sales and other taxes on all materials and such as labour charges, like mixing cement mortar, scaffolding charges, constructing masonry, lift charges, curing, etc., complete for finished item of work. TSSS No.501 and 504. 2nd Floor at MGM Warangal	15	Cum
450	Reinforced Masonry for partition walls 100 mm thick in CM 1:4 prop. Aerated Cellular Autoclaved Concrete Blocks conforming to IS:2185 Part-3 - 1984 and IS:6441-1972 of Compressive strength 3 N/mm ² 600 x 200 x 100 mm and placing 2Nos. of 6mm M.S plain rods in every third layer with free ends of the reinforcement pegged into mortar joints of main brick walls where applicable including cost and conveyance of all materials like cement, steel, sand, brick, water etc., to site, including sales and other taxes excluding GST on all materials, all operational, incidents charges, constructing masonry, lift charges, curing, complete for finished item of work. TSSS No. of 509. 2nd Floor at MGM Warangal	500	Sqm
451	Providing Mild steel MS steel bars Fe 250 grade as per IS 432 of different diameters including labour charges for straightening, cutting, bending to required sizes and shapes, placing in position with cover blocks of approved materials and size and tying and lap-splicing with binding wire of 18 SWG, forming grills for reinforcement work as per approved designs and drawings, including cost and conveyance of steel bars, including all wastages such as overlaps, couplings, chairs, spacer bars including cost and conveyance of binding wire, cover blocks and all incidental, operational, labour charges such as cutting, bending, placing in position, tying including sales and other taxes on all materials etc. , complete for finished item of work. TSSS No.126 For RBM walls 6mm dia: 2nd Floor at MGM Warangal	2.25	MT
452	Plastering 20mm thick in two coats using screened sand with base coat of 16mm thick in CM1:6 and top coat of 4mm thick in CM1:4 with dubara sponge finishing including cost and conveyance of all materials like cement, sand, water etc., to site, including sales and other taxes on all materials, and all operational, incidental charges on materials and including cost of all labour charges for mixing mortar, finishing, scaffolding, lift charges, curing, including cutting grooves as directed by Engineer-in-charge etc., complete for finished item of work SS 901,903and 904 2ND Floor at MGM Warangal	45	Sqm
453	Plastering 12mm thick in two coats using screened sand with base coat of 8mm thick in CM 1:6 and top coat of 4mm thick in CM 1:4 with dubara sponge finishing including cost and conveyance of all materials like cement, sand, water etc., to site, including sales and other taxes on all materials, and all operational, incidental charges on materials and including cost of all labour charges for mixing mortar, finishing, scaffolding, lift charges, curing, including cutting grooves as directed by Engineer-in-charge etc., and complete for finished item of work. SS 901,903 and 904. 2ND Floor at MGM Warangal	930	Sqm

454	Supply and Installing change room Cubicles, at MGM Warangal GENERAL SPECIFICATIONS: Thickness of Compact Laminate : 12 mm Thick Colour of HPL Boards : In Single Colour, Size of Cubicle : As per DWG, Door Size for Normal Cubicle : As per DWG, Overall Height Of Cubicle : 2105 mm Including bottom gap of 100mm, Accessories: Manufacturers standard makes of Aluminium, SS Accessories. a Aluminium H Top Rail b SS Hinges c SS Privacy Thumb turn c/w Occupancy Indicator d SS Coat Hook e SS Door Knob f Aluminium U channel g Aluminium Door Stopper channel h Rubber Lining i SS Screws and PVC Wall Plugs	18	Sqm
455	Providing and laying screed plain cement concrete as per site condition for floor bedding using high quality aggregates including base preparation, compaction, levelling, all lead and lifts, rough finishing at the top surface, curing, shuttering if necessary etc., complete as directed . at MGM Warangal	20	Sqm
456	Supply and fixing powder coated aluminium fully glazed swing door as per the approved drawing with fixed fan light of 500mm height at top door using aluminium sections of 101.60 mm x44.45mm , 3.18 mm thick for frame and door shutter made of styles , top and middle rail of 47.62mm x 44.45mm, 3.18 mm thick and bottom rail of 96.00mm x 44.45 mm,3.18mm thick, powder coating of alluminium sections 25mm microns thick, 5 mm thick plain glass fitted with suitable aluminium glazing clips and rubber beading in fan light portion, double shutters fitted with 5mm thick frosted glass in the top half and 12mm thick prelaminated particle board One side choice colour and other side balancing white lamination in the bottom half fitted with suitable aluminium glazing clips and rubber beading, as approved by Engineer-in-Charge including supply and fixing ISI marked powder coated aluminium fixtures of 2 Nos. tower bolts 10mm bolt IS:204 300mm long, 4 Nos. alluminium handles IS:208 150mm dia and 1 Nos. aldrops IS:2681 250mm, 1 No. door closure, Al. Butt hinges 125mm long 6Nos including labour charges for manufacturing door , fixing the door with required No. of screws etc., complete for finished item of work. The Aluminium section used shall be standard make confirming to IS 1948-1961 and as approved by the Engineer 1200mmx2100mm at MGM Warangal	5	Sqm

457	Supplying and fixing of Unplasticised Poly Vinyl Chloride UPVC 3 track sliding windows with mesh shutter – 2-glass shutters and 1-mesh shutter duly manufactured using UPVC reinforced profiles Composition of profile shall consists a minimum of 5.5 PHR of TiO ₂ and not more than 12 PHR of CaCo ₃ for every 100 parts of PVC resin of 94mm x 45 mm/80 mm x 52 mm x 2.20 mm for outer frames, 58 mm x 39 mm/54 mm x 38 mm x 2.20mm for sliding shutter frames capable of mounting single glazing system structurally reinforced with hot dip galvanized up to 50 microns of minimum thickness of 1.0/1.2 mm prefabricated and welded through fusion welding. The window sash shall be fitted with 5 mm thick clear float glass of reputed make and mesh shutter frame shall be 42 mm x 25mm/52 mm x 21.5 mm x 2.0 mm fitted with Vinyl Coated Fiber mesh- on rollers/ pulley duly fixed with Grey colour TPV Gasket for sash and Glazing bead shall be co-extruded with Grey colour soft PVC. System shall have single point locking with Touch Lock and the system is to be installed at the site using anchor fasteners, silicon rubber sealant, easy glazing/deglazing at site etc., including cost and conveyance of all materials, accessories, labour charges for transportation, erection at site includingetc., complete for finished item of work at MGM Warangal	15	Sqm
458	Providing, supplying and fixing of Fixed Louvered Ventilator made out of multi chambered uPVC sections with Glazing bead shall be co-extruded with Grey colour soft PVC. having isolated drainage and reinforced with Galvanized Iron profiles throughout the window. The outer frame having an overall size of 60 mm x 55 mm x 2.40 with reinforcement of 1 mm thickness and Mullion with overall size of 74 mm x 60 mm x 2.40 mm with reinforcement of 1 mm thickness. Composition of profile shall consists a minimum of 5.5 PHR of TiO ₂ and not more than 12 PHR of CaCo ₃ for every 100 parts of PVC resin. Ventilator shall be provided with 4.5 mm Pin Head glass, standard hardware. Wall thickness of frame and Mullion shall be 2.4 mm., including cost and conveyance of all materials, accessories, labour charges for transportation, erection at site etc., complete for finished item of work hinges IS:205 150mm long, 1 No. aldrops IS:2681 300mm long, 1 No. tower bolt IS:204 of 200 mm x 10 mm dia at top, 2 Nos. 150 mm at MGM Warangal	3.25	Sqm
459	Supply and fixing doors as per drawings with medium teak wood frame of section 100mm x 65 mm and ISI marked flush door shutters of 30 mm thick single shutter with bond wood solid block board type Core having cross bands and face veneers, hot pressed bonded with water proof phenol formaldehyde synthetic resin factory made conforming to IS 2202-1991 Part-I both sides commercial ply with internal lipping on all sides including cost and conveyance to site of teak wood frame, flush shutter including supply and fixing 6 Nos. MS Z hold fasts of size 300 mm x 40 mm x 5mm including cost of ISI marked Aluminium fixtures of 3 Nos. butt long handles IS:208, 1 No. door stopper and 1 No. rubber bush including fixing the fixtures to door with required number of screws, bolt and nuts including labour charges for fixing the frame in position, fixing the shutter to the frame etc., complete for finished item of work as per APSS 1001 and 1002 The vertical frame of door shall be embedded in flooring for a depth of not less than 10 mm 1000mm x 2100mm at MGM Warangal	29.5	Sqm

460	Supply and fixing doors as per drawings with medium teak wood frame of section 100mm x 65mm and ISI marked flush door shutter of 30mm thick single shutter with bond wood solid block board type Core having cross bands and face veneers, hot pressed bonded with water proof phenol formaldehyde synthetic resin factory made conforming to IS 2202-1991 Part-I both sides commercial ply with internal lipping on all sides including cost and conveyance to site of medium teak wood door frame, flush shutter, including supply and fixing 6 Nos. MS Z hold fasts of size 300mm x 40mm x 5mm including ISI marked Aluminium fixtures 3 Nos. butt hinges IS:205 of 150mm long, 1 No. aldrip IS:2681 250 mm long, 1 No. tower bolt IS:204 of 150 mm x 10mm dia, 2 Nos. 125mm long handles IS:208,1 No. rubber bush including supplying and fixing 1.20mm thick PVC sheet to full height of the shutter inside including labour charges for fixing the frame in position, fixing the shutter to the frame etc., complete for finished item of work as per APSS 1001 and 1002. The vertical frame of door shall be embedded in flooring for depth of not less than 10mm 750mm x 2100mm. at MGM Warangal	6.3	Sqm
461	Flooring with soluble salt porcelain vitrified tiles screen printed and polished of size 600 x 600 mm and thickness between 8 to 10mm 1st quality conforming to IS: 13711, IS: 13712, IS: 13630Parts 1 to 15 of any colour and finish in all shades and designs with borders and design as per the approved flooring pattern as directed by the Engineer-In -Charge, laying tiles using spacers of 2mm thick, set over a base coat of CM 1:8 prop. 12mm thick using screened sand over CC bed already laid or RCC roof slab, including neat cement slurry of honey like consistency spread at the rate 3.3 kgs per Sqm. and jointed neatly with white cement paste to full depth mixed with pigment of matching shade including cost and conveyance of all materials like cement, sand, water, tiles, white cement etc., to site excluding cost of C.C. bed including cost of base coat and all labour charges for mixing of cement mortar, laying tiles to required slope as directed by the Engineer-in- charge etc., and complete for finished item of work. APSS No.701 and 707. 2nd Floor at MGM Warangal	265	Sqm
462	Flooring with non-skid full body ceramic floor tiles of size 300mm x 300mm and thickness between 7 - 8mm 1st quality conforming to IS: 13711, IS: 13712, IS: 13630Part 1 to 15 of any colour and finish in all shades and designs as approved by Engineer-in-charge, set over base coat of cement mortar 1:8, 12mm thick using screened sand over CC bed already laid or RCC roof slab, including neat cement slurry of honey like consistency spread at the rate 3.3 Kgs per Sqm and jointed neatly with white cement paste to full depth mixed with pigment of matching shade, including cost of all materials like cement, screened sand , water and tiles etc., complete for finished item of work. TSSS No.701 and 707 at MGM Warangal	12	Sqm

463	Providing and fixing in true horizontal level 14 mm - Mineral Fiber sheet 595 x 595 Square / Tegular Fissura fine model edge tiles with a Humidity Resistance of 90percentage RH, Average NRC 0.50, Light Reflectance greater than80percentage, Thermal Conductivity equal to 0.052 to 0.057 w/mk, Fire Performance Class 0/Class 1 using hot dipped Galvanized Steel section exposed surface with pre-coated capping, main Tee of size 24 x 32 mm at every 1200 mm c/c maximum and rotary stitched cross tee of size 24 x 27 mm at every 600 mm c/c and sub-cross tee of size 24 mm x 25 mm at 1200 mm c/c and wall angle of size 19 x 19 mm fixed to periphery of the wall and the above grid is suspended at every 1200 mm c/c in both directions using 2.0 mm thick pre-straightened GI Wire including cost and conveyance of all materials and labour charges such as cutting , fixing of standing of frame work exposing roof making etc., complete for finished item of work in 2nd floor. at MGM Warangal	300	Sqm
464	Providing dadoing to walls with glazed full body porcelain wall tiles of size 300 x 600 mm with any type of design texture such as marble finish, wooden, bamboo, stone finishes etc., scratch less, stain free and thickness between 6-8 mm 1st quality conforming to IS:13711, IS:13712, IS:13630 Parts 1 to 15 of any colour and finish in all shades and designs with borders as approved by Engineer-in-Charge set over base coat of CM1:5 12 mm thick using screened sand with cement slurry of honey like consistency spread at the rate of 3.30 kgs per sqm and jointing with white cement paste mixed with pigment of matching shade to full depth, including cost of all materials like tiles, cement, sand and water etc., complete for finished item of work. 2nd Floor at MGM Warangal	70	Sqm
465	Providing and applying Wall putty of White Cement or Polymer or Cement based of average 1 to 2 mm thickness over plastered surface to prepare the surface even and smooth after thoroughly brushing the surface to remove all dirt and remains of loose powdered materials, applying emery paper, Sand the surface, clean and wipe off loose dust, applying knifing paste filler by putty knife / muslin pad, air dry for 2 - 3 hrs, sand with 180 and 320 No., emery paper for the surface preparation including cost and conveyance of all materials to work site and all operational, incidental, labour charges, over heads and etc., complete for finished item of work in 2nd floor Internal walls. at MGM Warangal	800	Sqm
466	Painting to new wood work and flush shutters with lappam finish, over a primary coat and painting two coats of synthetic enamel paint Grade-II VOC Volatile Organic Compound content less than 50 grams/litre of approved shade including cost and conveyance of all materials to site cost of primer coat and all labour charges etc. complete including applying sand paper on lappam coats for neat finish including sales and other taxes on cost of all materials etc., complete in all floors TSSS No.1200, 1207 and 1211. at MGM Warangal	65	Sqm

467	Supply and application of one coat water based cement primer of interior grade I and two coats of water based PU paint having anti bacterial applications content less than 50 grams/litre for internal walls including cost and conveyance of all materials to site, sales and other taxes, incidental, operational and all labour charges etc., and complete for finished item of work in 2nd floor. at MGM Warangal	600	Sqm
468	Painting to old walls with 2 coats of water proof cement paint of shade as approved by the Engineer-In-Charge to give an even shade after thoroughly brushing the surface to remove all dirt and remains of loose powdered materials, including cost and conveyance of all materials to work site and all operational, scaffolding charges, incidental, labour charges etc., and overheads and contractors profit complete for finished item of work as per SS 912 in 2nd floor. at MGM Warangal	300	Sqm
469	Supplying and fixing 15 mm brass body CP finish bib tap of not less than 300 grams weight screw type full turn with internal / external threaded connection conforming to IS 8931 as approved by the Engineer-In-Charge including cost and conveyance of all materials, labour charges , overheads and contractors profit complete for finished item of work in all floors. at MGM Warangal	4	No
470	Supply and fixing of Ashirvad/ Ajay/ Astral Flowguard or equivalent CPVC Pipes and Fittings SDR 13.5 to meet the requirement of ASTM-D 2846 and are produced in CTS Copper Tube Sizes 1/2inches to 2inches for hot and cold water IS 15778:2007 including cost and conveyance of all materials to site, labour charges for fixing,complete for finished item of work at all floor levels. 15.90mm OD pipe at MGM Warangal	50	Rmt
471	Supply and fixing of Ashirvad/ Ajay/ Astral Flowguard or equivalent CPVC Pipes and Fittings SDR 13.5 to meet the requirement of ASTM-D 2846 and are produced in CTS Copper Tube Sizes 1/2inches to 2inches for hot and cold water IS 15778:2007 including cost and conveyance of all materials to site, labour charges for fixing,complete for finished item of work at all floor levels. 22.20mm OD pipe at MGM Warangal	50	Rmt
472	Supplying and fixing of SWR PVC pipes Prince/Sudhakar/Kisan/Supreme or any ISI brand 4 Kg/Sq.cm. and fixing all special such as plain bends, off sets, door bends, single junctions, double junctions as per site requirement, fixing with PVC clamps if necessary with required number of Bombay nails including cost and conveyance of all materials to site, labour charges, complete for finished item of work at all floor levels. APSS No. 1302 1319 and 1326 - 75mm dia at MGM Warangal	75	Rmt
473	Supplying and fixing of SWR PVC pipes Prince/Sudhakar/Kisan/Supreme or any ISI brand 4 Kg/Sq.cm. and fixing all special such as plain bends, off sets, door bends, single junctions, double junctions as per site requirement, fixing with PVC clamps if necessary with required number of Bombay nails including cost and conveyance of all materials to site, labour charges, complete for finished item of work at all floor levels. APSS No. 1302 1319 and 1326- 110mm dia at MGM Warangal	60	Rmt

474	Supplying and fixing Bronze Gate/ Globe valve as per IS - 778 Class - I, Indian make heavy type including cost and conveyance of all materials , labour charges , overheads and contractors profit complete for finished item of work. 25mm Nominal bore at MGM Warangal	4	No
475	Supplying and fixing of 4inches 101.6mm multi floor trap with jali - UPVC/SWR pipe fittings as per site requirements with standard practice for all floors including cost and conveyance of all materials to site, labour charges , etc., complete for finished item of work. at MGM Warangal	8	No
476	Supplying and fixing Indian make Flat Back Wash Hand Basin 1st quality conforming to IS:2556-Part-4:1972 of size 550mm x 400mm with 32 mm nominal size C.P. Fitting with parallel pipe thread conforming to IS:2963-1979 and fitted with 15 mm nominal bore Chromium Plated Pillar Tap of 1st quality Indian make heavy duty complete with standard CI brackets including wooden blocks ,1 No.12.70mm PVC connection with brass union nuts CP coated , angle stop cock 12.70mm dia. first quality Indian make heavy duty, 30mm dia. PVC flexible waste pipe 914.4mm length of 1st quality including cost and conveyance of all materials to site, labour charges , for finished item of work at MGM Warangal	4	No
477	Supply, Installation and commissioning approved make floor mounted Anglo Indian wash down EWC conforming to IS:2556 Part 8-2004 suit with P or S trap with dual flush porcelain cistern fixed on wash down EWC with all internal parts of dual flush cistern, ultra solid seat cover of approved make with rubber buffer and cap and 15 mm angle stop cock and 450 mm long PVC inter connection pipe wall flanges all of approved make etc. complete for finished item of work in all respects: TBSP-E.II-03 at MGM Warangal	4	No
478	Supplying and fixing Chromium plated finish brass body quarter turn Bibcock cum Health Faucet with 1m long tube and wall hook with necessary fittings etc., complete including cost and conveyance of all materials, labour charges, complete for finished item of work in all floors. at MGM Warangal	4	No
479	Supplying and fixing CP finish brass soap dish of approved make ISI quality including cost and conveyance of all materials, labour charges for fixing, for finished item of work in all floors at MGM Warangal	4	No
480	Supplying and fixing TV shape mirror with plastic frame of size 609.6mm x 457.2mm, plywood back with NP screws 1st quality including cost and conveyance of all materials, labour charges, for finished item of work in all floors. at MGM Warangal	4	No
481	Supplying and fixing of CP finish brass wall mounted towel ring at MGM Warangal	4	No
482	Supplying and fixing 15 mm brass body CP finish self closing tap push type conforming to IS 1711 as approved by the Engineer-In-Charge including cost and conveyance of all materials, labour charges, complete for finished item of work in all floors. at MGM Warangal	4	No

483	Supply and installation of 80mm thick double skin modular wall Panels made of 0.8 mm thick powder coated GI on both the sides, with 40 plus or minus 2 kg/m ³ density PUF as infill, GI profiles all along the periphery, flush on both sides with maximum allowable gap of 3- 4mm filled with food grade silicon sealant and placed on cold rolled galvanised bottom tracks with a recess to provide floor to wall coving flush with the wall panel. This includes all required hardware for completion Panels to be covered with a protective film to avoid any damages during transportation and installation at MGM Warangal	130	sqm
484	Supply and installation of 50mm thick double skin ceiling system made of 0.8 mm thick Powder Coated GI sheets on both sides, 40 plus or minus 2 kg/m ³ density PUF as infill, GI profiles all along the periphery, panels flush towards room side with maximum allowable gap of 3-4mm at panel to panel joints filled with silicon sealant. Ceiling panels are suspended from the RCC slab by using concealed AL ceiling grid with tie rod and adjustable turn buckle arrangement etc. This includes all required hardware for completion. Panels to be covered with a protective film to avoid any damages during transportation and installation at MGM Warangal	65	sqm
485	Double leaf clean room Doors : 46mm thick flush doors made of 0.8mm thick Powder coated GI sheets on both sides, 90 plus or minus 2 kg/m ³ density Honeycomb with stand upto 220 Deg.C Temperature, and compressible strength upto 400 Kg/Sqm, 1.2 mm thick GPSP . door frames, double glazed vision panel with necessary adhesive tapes and silicon sealant, necessary hardware like SS304 ball bearing butt hinges, D- handles, push plates, Dorma make door closure, concealed tower bolt, drop seals for the double leaf door and provision for fixing magnetic type door interlocking system and automatic door bottoms, Both side lock and keys etc. complete. Size 1500 X 2100 mm with 300mm X 300mm double glazed view panels at MGM Warangal	5	No
486	Single leaf clean room Doors : 46mm thick flush doors made of 0.8mm thick Powder coated GI sheets on both sides, 90 plus or minus 2 kg/m ³ density Honeycomb with stand upto 220 Deg.C Temperature, and compressible strength upto 400 Kg/Sqm, 1.2 mm thick GPSP . door frames, double glazed vision panel with necessary adhesive tapes and silicon sealant, necessary hardware like SS304 ball bearing butt hinges, D- handles, push plates, Dorma make door closure, concealed tower bolt, drop seals for the double leaf door and provision for fixing magnetic type door interlocking system and automatic door bottoms, Both side lock and keys etc. complete. Size 900 X 2100 mm with 300 mm x 300 mm View panel at MGM Warangal	1	No

487	Emergency Fire Doors : 46mm thick flush doors made of 0.8mm thick Powder coated GI sheets on both sides, 90 plus or minus 2 kg/m ³ density Honeycomb with stand upto 220 Deg.C Temperature, and compressible strength upto 400 Kg/Sqm, 1.2 mm thick GPSP . door frames, double glazed vision panel with necessary adhesive tapes and silicon sealant, necessary hardware like SS304 ball bearing butt hinges, D- handles, push plates, Dorma make door closure, concealed tower bolt, drop seals for the double leaf door and provision for fixing magnetic type door interlocking system and automatic door bottoms, Both side lock and keys etc. complete. Size 1500 X 2100 mm with 2 hours fire rated and panic push bar and accessories etc. at MGM Warangal	1	No
488	Supply and installation of Extruded Aluminium Coving at MGM Warangal	100	Rmt
489	Providing, laying of scratch proof PVC/Vinyl flooring of 2mm thickness with proper welded joints air tight, along with leveling compound to match the existing flooring levels as per engineer in charge instructions. Sub floor preparation with self leveling compound. After the sub floor preparation, it should be suitable for ESD flooring. Rate inclusive of sifting of material and labour charges. at MGM Warangal	120	Sqm
490	Supply, installation, testing and commissioning of 16 G GI powder coated suitable single person entry air shower as per the technical Specifications at MGM Warangal	1	No
491	Supply, installation, Testing and Commissioning of Static Pass Boxes of Size 450X450mm with 1.2mm thick SS 304 Mat finish , with interlock doors, UV light On when doors closed condition. As per clean room standard and requirement. at MGM Warangal	3	No
492	Supply and laying of ISI 25mm outer dia medium grade with IS:9537-part 3 rigid PVC pipe concealed in wall with all required PVC / Metallic Junction Boxes including masonry work and labour charges etc., Makes: Sudhakar / Precision /Universal/ Modi / Million Plast. at MGM Warangal	220	Rmt
493	Supply and laying of ISI 25mm outer dia medium grade with IS:9537-part 3 rigid PVC pipe surface on wall with all required PVC / Metallic Junction Boxes including masonry work and labour charges etc., Makes: Sudhakar / Precision /Universal/ Modi / Million Plast. at MGM Warangal	500	Rmt
494	Wiring with 2 runs of 22/0.3mm 1.5 Sq.mm FRLS / HFFR P.V.C. insulated flexible copper cable ISI MARK in existing pipe with 6A Modular switch, Ceiling rose/BH/SBH Modular switches with cover plate and GI switch box including all labour charges etc., complete. for Non- Residential Building Makes of wires: Finolex/ RR Cable/ Havells/ Polycab/ HPL. Makes of switches: - GM Four-Five / Legrand Arteor / Schneider Zen celo /Honeywell Blenge Plus/Gold Medal curve. at MGM Warangal	105	Pts
495	Supply and fixing of 6A ISI Mark 3/2 pin Modular socket with 6A 1way Modular switch, 3 Module box with cover frame and GI switch box on common switch board with connections etc., complete. Makes of wires: Finolex/ RR Cable/ Havells/ Polycab/ HPL. Makes of switches: - GM Four-Five / Legrand Arteor / Schneider Zen celo /Honeywell Blenge Plus/Gold Medal curve. at MGM Warangal	12	No

496	Supply and fixing of 16A switches - 1Nos and 6/16A 2 in one socket - 1Nos Modular type with cover plate and GI switch box fixing on separate board including all labour charges etc., complete. Makes of switches: - GM Four-Five / Legrand Arteor / Schneider Zen celo /Honeywell Blenge Plus/Gold Medal curve. at MGM Warangal	40	No
497	Supply and fixing of 16A/6A, 2 in one socket - 2 Nos with 16A switch control - 2 Nos modular type with and GI switch box with front cover plate including all labour charges etc., complete. Makes of switches: - GM Four-Five / Legrand Arteor / Schneider Zen celo /Honeywell Blenge Plus/Gold Medal curve. at MGM Warangal	60	No
498	Supply and fixing of 16A/6A, 2 in one socket - 4 Nos with 16A switch control - 4 Nos modular type with and GI switch box with front cover plate including all labour charges etc., complete. Makes of switches: - GM Four-Five / Legrand Arteor / Schneider Zen celo /Honeywell Blenge Plus/Gold Medal curve. at MGM Warangal	10	No
499	Supply and run of 1 of 22 /0.3mm 1.5 Sq.mm FRLS / HFFR P.V.C. insulated flexible copper cable in existing conduit pipe for earth continuity including all labour charges etc., complete. Makes of wires: Finolex/ RR Cable/ Havells/ Polycab/ HPL. at MGM Warangal	375	Rmt
500	Supply and run of 3 of 2.5 sq.mm 36/0.mm phase neutral and earth FRLS / HFFR PVC insulated flexible copper cable in existing conduit pipe for individual lighting circuits including labour charges etc., complete as required for switch boards. Makes of wires: Finolex/ RR Cable/ Havells/ Polycab/ HPL. at MGM Warangal	600	Rmt
501	Supply and 3 runs of 4.0 sq mm 56/0.3 mm phase neutral and earth FRLS / HFFR PVC insulated flexible copper cable in existing conduit pipe including labour charges etc., complete for 16A sockets. Makes of wires: Finolex/ RR Cable/ Havells/ Polycab/ HPL. at MGM Warangal	1200	Rmt
502	Supply and run of 5 of 6.0 Sqmm 90/0.3 mm 3 phases, neutral and earth FRLS / HFFR PVC insulated flexible copper cable in the existing conduit pipe for run of mains from Power panel board to TPN DBs with pin type lugs and connections etc., complete. for LDBs Makes of wires: Finolex/ RR Cable/ Havells/ Polycab/ HPL. at MGM Warangal	60	Rmt
503	Supply and run of 5 of 10.0 Sqmm 140/0.3 mm 3 phases, neutral and earth FRLS / HFFR PVC insulated flexible copper cable in the existing conduit pipe for run of mains from Power panel board to TPN DBs with pin type lugs and connections etc., complete. for PDBsMakes of wires: Finolex/ RR Cable/ Havells/ Polycab/ HPL at MGM Warangal	40	Rmt
504	Supply and fixing of DP Metal Enclosure with IP 20 Protection DB Make with 1 No 20A, 10 KA DP MCB Make: Legrand / Schneider including internal connection and labour charges for Flush Mounting etc., complete. Makes: Legrand / Schneider. at MGM Warangal	5	No

505	Supply and fixing of 4 Way TPN DB Horizontal with IP 43 Protection as per IS:13032 Makes: Legrand / Schneider and Supply and Fixing of 1 No., of 40A FP 30mA RCCB as incomer and 12 Nos 6-32 A 10kA SP MCBs Makes: Legrand-DX3 / Schneider-Acti9 as out goings including internal connections and labour charges for FLUSH Mounting etc., complete. For Lighting DBs at MGM Warangal	3	No
506	Supply and fixing of 8 Way TPN DB Horizontal with IP 43 Protection as per IS:13032 Makes: Legrand / Schneider and Supply and Fixing of 1 No., of 63A FP 100mA RCCB as incomer and 24 Nos 6-32 A 10kA SP MCBs Makes: Legrand-DX3 / Schneider-Acti9 as out goings including internal connections and labour charges for FLUSH Mounting etc., complete. For Lighting DBs at MGM Warangal	2	No
507	Supply and fixing of 8 Way VTPN DB Horizontal with IP 43 Protection as per IS:13032 Makes: Legrand / Schneider and Supply and Fixing of 1 No., of 100A FP 10KA MCB as incomer and 4 Nos 63 A 10kA TP MCBs, 4 Nos 40 A 10kA TP MCBs Makes: Legrand-DX3 / Schneider-Acti9 as out goings including internal connections and labour charges for FLUSH Mounting etc., complete. For UPS MDB DBs at MGM Warangal	1	No
508	Providing and fixing of 125A 25KA TPN Thermal Magnetic Release Based MCCB and Terminal Spreaders in Existing panel board with 1 No. and 1 Set of Indication Lamps, LED type, R,Y,B and breaker ON , OFF, TRIP and spring charged lamps. and replace with above Mentioned with required Drilling Holes, removing and Making Busbar connections etc, as required. Makes: Legrand / Schneider/ABB/ LandT/CandS at MGM Warangal	1	No
509	Providing and fixing of 100A 10KA FP MCB and Terminal Spreaders in IP 43 isolator Box Making connections etc, as required. Makes: Legrand / Schneider/ ABB/LandT/CandS at MGM Warangal	2	No
510	Supply, transportation and fixing of 24W edge lit LED Down light Square Housing Made of Aluminum alloy with corrosion resistant powder coat, with high efficiency acrylic wide diffuser Square with Protruded high efficiency diffuser, IP20, with wide operating voltage range, Power factor greater than 0.9, Surge protection: greater than 2KV, System efficacy of greater than 100 lumens/watt, CCT: 3000K - 6500K as desired by the department and as per IS, CRI greater than 80, and THD is less than 15percentage etc., with BIS Certification. Makes: Phillips / OSRAM / Wipro / Crompton / Bajaj / Havells at MGM Warangal	56	No
511	Supply and Transportation 36W Edge lit, 2 feet x2 feet 600mm x600mm slim panel LED luminaire Square Housing Made of Aluminum alloy with corrosion resistant powder coat, with high efficiency acrylic wide diffuser, with wide operating voltage range, Power factor greater than 0.9, Surge protection greater than 2KV, System efficacy of greater than 100 lumens/watt, CCT: 3000K - 6500K as desired by the department, CRI greater than 80, and THD is less than 15percentage etc., complete. Makes: Phillips / OSRAM / Wipro / Crompton / Bajaj / Havells at MGM Warangal	36	No

512	Supply and Transportation 42W Clean room Light fixture, 2 feet x2 feet 600mm x600mm LED luminaire CRCA powder coated white after phosphocreatine treatment provided as standard. with high efficiency acrylic wide diffuser, with wide operating voltage range, Power factor greater than 0.9, Surge protection greater than 2KV, System efficacy of greater than 100 lumens/watt, CCT: 3000K - 6500K as desired by the department, CRI greater than 80, and THD is less than 15 percentage etc., complete. MAKE: OSRAM / Wipro / Crompton / Bajaj / Havells at MGM Warangal	12	No
513	Supply and fixing of ISI mark batten holder / slanting holder Makes : Anchor / Gold Medal Olive / Million Zoom in lieu of ceiling rose of light point complete with all connections and all labour charges with 5.0W LED Lamp MAKE: OSRAM / Wipro / Crompton / Bajaj / Havells at MGM Warangal	5	No
514	Supply, Transportation of energy efficient fan, 1200 mm sweep, aluminium body, consuming 28 W, BEE 5 star rated, ceiling fan with Brush Less Direct Current BLDC motor, class of insulation: B, 3 nos blades, 30 cm long down rod, 2 nos canopies, shackle kit, safety rope, copper winding, Power Factor greater than 0.90, Service Value CMMAV greater than 8.5, Air delivery minimum 235 CMM, 350 RPM tolerance as per IS:374-2019, THD less than 10 percentage. with remote or compatible to electronic step type regulator unit for speed control and all remaining accessories including safety pin, nut bolts, washers, temperature rise equal to 75 degree Cmax, insulation resistance more than 2 mega ohm, suitable for 230V, 50 HZ, single phase AC supply, earthing etc., including all standard accessories etc., complete. Makes : Atomberg Efficio / Havells / Orient at MGM Warangal	12	No
515	Supply and fixing of Modular type Stepped electronic regulator Makes : GM Four-Five / Legrand Arteor / Schneider Zen celo / Honeywell Blenge Plus/ Cabtree Verna/ Million logus / Gold Medal Curve for sweep AC ceiling fans of 1200mm / 1400mm complete with connections. at MGM Warangal	12	No
516	Supply and installation of 225mm Light duty exhaust fan with metal blades etc complete Makes: Crompton / Havells Ventilair-DB/ Orient hill air. at MGM Warangal	5	No
517	SITC of Hot dip galvanized perforated cable tray of 100 mm Wide sizes for to run the cable from DBs to SBs and sockets and AC panel to Units units. All necessary supports and accessories are included. Cable tray for cables alone shall be included here Thickness shall be 1.6 mm. at MGM Warangal	70	Rmt
518	SITC of Hot dip galvanized perforated cable tray of 300 mm Wide sizes for to run the cable from Floor Panel to Lab Panel and electrical room to AC panel and AC panel to Units. All necessary supports and accessories are included. Cable tray for cables alone shall be included here Thickness shall be 1.6 mm. at MGM Warangal	80	Rmt

519	Supply and installation of 20KVA 3ph in and 3ph out on line UPS system IGBT based rectifier with input power factor correction 32 bit microprocessor based with isolation transformers double conversion, SNMP controls, LCD display, Pure sine wave output, with auto static switch three phase input / Three phase output and modular structure for better thermal technology / cooling facility, with warranty up to three years. Makes: APC / Numeric / Emerson / Fuji Electric at MGM Warangal	1	No
520	Supply and fixing of 12V 65 AH SMF battery including wire leads. Makes: Quanta / Racket / Exide. at MGM Warangal	20	No
521	Supply and providing of UPS cum battery rack for 20 batteries at MGM Warangal	1	No
522	Providing and Fixing maintenance free earthing which consists of G.I. Earth station, with 600X600X3.15mm GI Plate at 2500mm Depth including construction of brick pedestal, providing meshed funnel, GI cover and other civil Engineering works, spreading a homogenous mixture of salt, charcoal around the pipe etc., completely as per IS 3043, 1987 or latest revision. Earthing testing should be done as per IE Rules like Earth valve test Etc. at MGM Warangal	2	No
523	Providing and Fixing maintenance free earthing which consists of copper. Earth station, with 600X600X3.15mm Copper Plate at 2500mm Depth including construction of brick pedestal, providing meshed funnel, GI cover and other civil Engineering works, spreading a homogenous mixture of salt, charcoal around the pipe etc., completely as per IS 3043, 1987 or latest revision. Earthing testing should be done as per IE Rules like Earth valve test Etc. at MGM Warangal	2	No
524	Supply and installation of 50x6 GI flat for body earthing of electrical panel and AC Panel which is laid in 300mm cable tray at MGM Warangal	200	Rmt
525	Supply and installation of 25x3 GI flat for body earthing of DBs and Cable tray which is laid in 100mm cable tray at MGM Warangal	100	Rmt
526	Supply and installation of 25x3 Copper flat for Neutral earthing of UPS and Equipment which is laid in 100mm cable tray at MGM Warangal	200	Rmt
527	Supply and installation of 4 sqmm Copper wire for Earthing of DBs Equipment at MGM Warangal	80	Rmt
528	Supply, Lying and testing of 3.5Cx95 sqmm XLPE Insulated Cable 1100V grade armoured aluminium cable with ISI mark as per specification confirming to IS:7098 Part - I with heavy duty type double compression weather proof type brass cable glands duly nickel plated as per BS 6121 and IP66 complete with brass checknut, outer sheath sealing gasket heavy duty long barrel aluminium lugs confirming to I.S specifications with complete nut, bolt and washer etc.. Make of Cable: Polycab/ KEI/Universal/Glostar/Finolex Make of gland and Lungs: HMI/Commnet/Dowell's at MGM Warangal	120	Rmt

529	Supply, Lying and testing of 3.5CX50 sqmm XLPE Insulated Cable 1100V grade armoured aluminium cable with ISI mark as per specification confirming to IS:7098 Part - I with heavy duty type double compression weather proof type brass cable glands duly nickel plated as per BS 6121 and IP66 complete with brass checknut, outer sheath sealing gasket heavy duty long barrel aluminium lugs confirming to I.S specifications with complete nut, bolt and washer etc.. Make of Cable: Polycab/ KEI/Universal/Glostar/Finolex Make of gland and Lungs: HMI/Commet/Dowell's at MGM Warangal	70	Rmt
530	Supply, Lying and testing of 4Cx16 sqmm PVC Insulated Cable 1100V grade armoured Copper cable with ISI mark as per specification confirming to IS:7098 Part - I with heavy duty type double compression weather proof type brass cable glands duly nickel plated as per BS 6121 and IP66 complete with brass checknut, outer sheath sealing gasket heavy duty long barrel aluminium lugs confirming to I.S specifications with complete nut, bolt and washer etc.. Make of Cable: Polycab/ KEI/Universal/Glostar/Finolex Make of gland and Lungs: HMI/Commet/Dowell's at MGM Warangal	100	Rmt
531	Supply, Lying and testing of 4Cx6 sqmm PVC Insulated Cable 1100V grade armoured Copper cable with ISI mark as per specification confirming to IS:7098 Part - I with heavy duty type double compression weather proof type brass cable glands duly nickel plated as per BS 6121 and IP66 complete with brass checknut, outer sheath sealing gasket heavy duty long barrel aluminium lugs confirming to I.S specifications with complete nut, bolt and washer etc. Make of Cable: Polycab/ KEI/Universal/Glostar/Finolex, Make of gland and Lungs: HMI/Commet/Dowell's at MGM Warangal	120	Rmt
532	Supply, Lying and testing of 4Cx4 sqmm PVC Insulated Cable 1100V grade armoured Copper cable with ISI mark as per specification confirming to IS:7098 Part - I with heavy duty type double compression weather proof type brass cable glands duly nickel plated as per BS 6121 and IP66 complete with brass checknut, outer sheath sealing gasket heavy duty long barrel aluminium lugs confirming to I.S specifications with complete nut, bolt and washer etc. Make of Cable: Polycab/ KEI/Universal/Glostar/Finolex, Make of gland and Lungs: HMI/Commet/Dowell's at MGM Warangal	80	Rmt

533	SITC of IVF Center Main Panel Indoor IP-42 wall/ free standing floor mounted dust and vermin proof compartmentalized cubical panel made out of CRCA sheet, required hardware, duly treated for de-rusting in 7 tank process with de-phosphate and with powder coating on both side of panel in desired shade. The panel having PU/ Neoprene rubber gasket of not less than 3mm thickness, separate detachable gland plate M.S. base channel, hinged door with locking arrangement for equipment/switchgear. Thickness of sheet shall not be less than 1.6 mm up to 600 mm length / width of any compartment and be of 2.0 mm above 600 mm. Load bearing structure shall be of 2.0 mm thick sheet supported by base M.S. channel if required. Side walls and cable alley compartments having bolted type doors with /without detachable extension type structure with all type of suitable switching accessories and bus-bar as per load requirement of respective IVF equipment's. Which is including Lighting, power DBs and UPS at MGM Warangal	1	No
534	SITC of IVF center AC Panel outdoor IP-54 wall/ free standing floor mounted dust and vermin proof compartmentalized cubical panel made out of CRCA sheet, required hardware, duly treated for de-rusting in 7 tank process with de-phosphate and with powder coating on both side of panel in desired shade. The panel having PU/ Neoprene rubber gasket of not less than 3mm thickness, separate detachable gland plate M.S. base channel, hinged door with locking arrangement for equipment/switchgear. Thickness of sheet shall not be less than 1.6 mm up to 600 mm length / width of any compartment and be of 2.0 mm above 600 mm. Load bearing structure shall be of 2.0 mm thick sheet supported by base M.S. channel if required. Side walls and cable alley compartments having bolted type doors with / without detachable extension type structure with all type of suitable switching accessories and bus-bar as per load requirement of respective AC equipment's. Which is including 1nos AHU's stater with VFD by pass, Heater, ODU and VRF system at MGM Warangal	1	No
535	Supply and installation of AHUs stater on/off push button station for Remote control for inside IVF center with control wiring from AC panel to on /off push button station with necessary items. at MGM Warangal	3	No
536	Supply, installation, testing and commissioning of 20nos LAN points with cat 6 cable and with suitable network rack and 5nos of telephone points with krone box to existing EPABEX. at MGM Warangal	1	Job
537	Supply, installation, testing and commissioning of 1 no of Access control system with egress switch, Power Cable, communication cable to control panel with necessary required items Etc. at MGM Warangal	1	Job
538	Supply, installation, testing and commissioning of Automatic Fire Alarm System which is including 30 nos of smoke Detectors 1nos manual call point, 1 no of Hooter with fire alarm cable connected to the existing fire control panel with necessary Required items etc.. at MGM Warangal	1	Job
539	Supply, installation, testing and commissioning of 5nos IP Based CCTV cameras and Cat 6 Cable with NVR system. at MGM Warangal	1	Job
540	Supply, installation, testing and commissioning of Audio and video recording of counseling rooms at MGM Warangal	1	Job

541	Supply and installation of Fire Extinguishers of CO2 4.50 Kg at MGM Warangal	5	No
542	Supply and installation of ceiling mounted Fire Extinguishers of ABC MAP 90, 5.0 Kg stored pressure type at MGM Warangal	5	No
543	Supply and installation of 2.0 Kg clean agent HCFC 123 Fire Extinguishers at MGM Warangal	5	No
544	Supply and fixing of Fire escape signage Boards at MGM Warangal	1	Job
545	Supply, transportation and installation of split AC unit 1.5 TR inverter type 3 Star capable of delivering 18000 BTU/hr and above with high wall mounted indoor unit and outdoor condensing unit Hermetically sealed compressor suitable for operation on 230V, 50Hz, 1Phase AC supply capable of performing cooling dehumidifying air circulating and filtering with cooling and condensing units with 3.5 mts of copper piping, insulation kit and 4 mts of 3 core copper flexible chord , built-in stabilizer Voltage range 160- 264 volts and cordless remote control. Makes : Daikin / Thoshiba / O General at MGM Warangal	1	No
546	Supply, transportation and installation of split AC unit 1.0 TR inverter type minimum 3 Star capable of delivering 12000 BTU/hr and above with high wall mounted indoor unit and outdoor condensing unit Hermetically sealed compressor suitable for operation on 230V, 50Hz, 1Phase AC supply capable of performing cooling dehumidifying air circulating and filtering with cooling and condensing units with 3.5 mts of copper piping, insulation kit and 4 mts of 3 core copper flexible chord , built-in stabilizer Voltage range 160- 264 volts and cordless remote control. Makes: Daikin / Thoshiba / O General at MGM Warangal	1	No
547	Modular Double skin floor mounted EUROVENT Certified Air Handling Unit 3000CFM / 8.5 TR / 150mm SP made out of 45 plus or minus 2mm thick PUF insulated panels Thermal break aluminium profile frame work with 0.8mm thick pre painted / powder coated inner and outer skins comprising of mixing box with fresh air and return air dampers, pre filters with 10 and 5 microns combination filters in single frame, Interlaced/Intertwined DX Cooling Coil suitable for connecting 2 nos of 8.5TR capacity 1W plus 1S out door condensing units, SS304 drain pan with , blower section with Nicotra / Kruger make direct drive/ Plug type fan, vibration isolators, EFF1 motor and blower section with on/off switches to operate from outside, limit switch for the fan section access door with a view port, fine filter section with 3 microns filters inspection doors for all filter and fan sections and damper at the outlet of unit. Ports for differential pressure gauges across all filters and blower to measure differential pressure. AHU Make : VTS / Systemair, Make - Blower - Nicotra / Kruger ; Motor - Crompton Greaves / Siemens ; Filter - Thermodyne / Freudenberg / Ultrafil at MGM Warangal	1	No
548	SITC of filter module made out of heavy duty Aluminium powder coated extrusion with minimum of 13G . and to house 610 mm X 610 mm HEPA Filter at the rate 0.3 microns , 99.9997, H-14 Grade, Filter loading from clean room side with bewel gear arrangement damper with access from clean room suitable to house the following filter sizes pressure drop and Integrity testing ports into room. Includes SS capsule perforated diffuser. This includes all required supports and accessories etc. Capacity 1000 CFM. at MGM Warangal	6	No

549	SITC of air cooled condensing units with two scroll compressors, air cooled condenser, power panel, vibration isolating pads, stand for ODU, thermostat, etc. of the following capacities. The nominal capacity of the condensing unit shall be as under. Air cooled condensing unit shall have horizontal discharge. All refrigerant piping accessories sight glass, drier, expansion valve, etc. shall be supplied with the condensing units and suitable to connect above AHUs. Refrigerant shall be R 407C / R 410A. Necessary thermostat, control wiring, etc. shall be included. Derating of the unit shall not be more than 15percentage under 45 deg. C ambient temperature. Condensing unit shall be capable of operating up 50 deg. C ambient temperature. 8.5 TR capacity at MGM Warangal	1	No
550	SITC of Flange type, Flame proof FLP duct heaters of 5 kW capacity with Mineral Filled AISI SS304/SS321 Sheathed Tubular Heater with GI Helical fins, Tube dia 8.2mm min and Helical Finn dia 25mm min, enclosed in the frame, FLP Terminal box etc., Nickel Chromium Inner Element, Silicon Sealing to Restrict Moisture pickup, Silver brazed mounting plate etc., and heaters shall be controlled with PID thyristor controller based on the analog output signal of 0-10 V DC of controller . And this should have safety thermostat and cutouts and air stat etc. all safety controls. The capacities as follows and sizes of the heaters shall be as per the duct sizes and approved drawing. at MGM Warangal	1	No
551	SITC of 20/21 G hard drawn copper refrigerant piping with all fittings, supports, insulation with 19 mm thk class O nitrile rubber insulation with factory laminated glass cloth for physical protection and UV protection etc. Quality of copper piping fittings shall be suitable for 18 G piping. Copper piping shall be clamped at every 1.5 mt. distance. copper piping shall be laid on inverted GI perforated cable trays and clamps as per specification inside the building. Copper piping on the terrace shall be laid with bottom and top cable tray. Thickness of the tray shall be 1.6 mm. Copper pipe size shall be as per OEM standards. Liquid Line at MGM Warangal	20	Rmt
552	SITC of 20/21 G hard drawn copper refrigerant piping with all fittings, supports, insulation with 19 mm thk class O nitrile rubber insulation with factory laminated glass cloth for physical protection and UV protection etc. Quality of copper piping fittings shall be suitable for 18 G piping. Copper piping shall be clamped at every 1.5 mt. distance. copper piping shall be laid on inverted GI perforated cable trays and clamps as per specification inside the building. Copper piping on the terrace shall be laid with bottom and top cable tray. Thickness of the tray shall be 1.6 mm. Copper pipe size shall be as per OEM standards. Suction Line at MGM Warangal	20	Rmt
553	SITC of CPVC drain piping with supports, clamps and 9 mm thk. Nitrile rubber tube insulation of the following sizes. Insulation shall have factory laminated glass cloth. 32mm Dia at MGM Warangal	50	Rmt
554	SITC of CPVC drain piping with supports, clamps and 9 mm thk. Nitrile rubber tube insulation of the following sizes. Insulation shall have factory laminated glass cloth. 25mm Dia at MGM Warangal	50	Rmt

555	SITC of Factory fabricated and boxed ducting using Aluminium Sheets / coils, should be fabricated as per SMACNA, galvanised hardware and supports, silicon sealant at all longitudinal joints, Galvanized /GI Electroplated iron angle flanges for all the joints, bracing angles and minimum 5mm thick neoprene rubber gasket.- Duct pressure testing at 75mm to be carried out before insulating the duct. pressure testing to be done as per SMACNA. Procedure to be approved by consultant. 20G - 1.0 mm Thick at MGM Warangal	30	Sqm
556	SITC of Factory fabricated and boxed ducting using Aluminium Sheets / coils, should be fabricated as per SMACNA, galvanised hardware and supports, silicon sealant at all longitudinal joints, Galvanized /GI Electroplated iron angle flanges for all the joints, bracing angles and minimum 5mm thick neoprene rubber gasket.- Duct pressure testing at 75mm to be carried out before insulating the duct. pressure testing to be done as per SMACNA. Procedure to be approved by consultant. 22G - 0.8 mm Thick at MGM Warangal	250	Sqm
557	Aluminium low leakage aerofoil design volume control dampers Suitable for manual and motorised operation at MGM Warangal	2	Sqm
558	CBRI approved 16G GI Spring return actuated fire dampers rated for 90 minutes with limit switch. at MGM Warangal	2	Sqm
559	SITC of SS perforated return raiser grilles with 10 microns filters with collar dampers at MGM Warangal	2	Sqm
560	Extruded Al. powder coated EXHAUST / RETURN discrete grilles at MGM Warangal	1	Sqm
561	SITC of Collar Dampers made of Al. extrusions with black powder coating for Grilles / Diffusers at MGM Warangal	1	Sqm
562	SITC of Magnehelic gauges across pre and fine filter at AHUs including mounting arrangement, SS nozzles, food grade PVC tubing, etc. at MGM Warangal	2	No
563	SITC of Magnehelic gauges to measure the room differential pressures in operation theatres with SS mounting box, SS nozzles, food grade PVC tubing, etc. at MGM Warangal	2	No
564	SITC of Aluminium powder coated Fresh air and Exhaust Louvers of non-vision type with nylon mosquito net etc. at MGM Warangal	1	Sqm
565	Supply, laying of Class O Nitrile rubber with factory laminated Glass cloth, all joints shall be covered with self-adhesive tapes 32mm Thick for Exposed Supply Air duct and finished with UV Protective Paint. at MGM Warangal	130	Sqm
566	Supply, laying of Class O Nitrile rubber with factory laminated Glass cloth, all joints shall be covered with self-adhesive tapes 25mm Thick for Exposed Return Air Duct and finished with UV Protective Paint.at MGM Warangal	130	Sqm
567	Supply, laying of Class O Nitrile rubber with factory laminated Glass cloth, all joints shall be covered with self-adhesive tapes 25mm Thick for Supply air duct running inside the building. at MGM Warangal	40	Sqm
568	Supply, laying of Class O Nitrile rubber with factory laminated Glass cloth, all joints shall be covered with self-adhesive tapes 19mm Thick for Return air running inside the building. at MGM Warangal	40	Sqm

569	Condensing units - VRF/VRV System : Supply, Installation, Nitrogen testing , Vacuuming and Commissioning of air cooled variable refrigerant flow modular type condensing units, each comprising of multiple scroll compressors all inverter driven, full charge of refrigerant gas R-410a including additional gas filling , lubricating oil and all accessories as per the specifications. The condensing units shall be suitable to work on cooling mode. The minimum Energy Efficiency Ratio shall be as per ASHRAE STANDARDS 90.1 -2001 table 6.2.1B . The COP of the system shall be greater than 4 under ARI conditions for 100percentage load . The condensing units shall be suitable for operation on 415 plus or minus 10percentage volts, 50Hz, 3 phase AC power supply and , outdoor units to be mounted on MS platform with suitable Vibration Isolation pads to avoid vibrations. All the supports and angle base frame structure to be duly black painted with synthetic epoxy paint. the condensing units shall be of following capacities: The VRF ODU should be capable of working with total capacity of connected indoor units ranging between 100percentage to 140percentage of ODU capacity . COP minimum 3.5. Make : Daikin / LG / O General / Toshiba at MGM Warangal 14 HP	1	Set
570	VRF Indoor Units : Hi wall Splits : Supply, Installation, Testing and Commissioning of variable refrigerant flow modular type indoor units wired/wireless remote suitable for R410a refrigerant comprising of all accessories as per the specifications. The indoor units shall be suitable to work on cooling.The minimum Energy Efficiency Ratio shall be as per ASHRAE STANDARDS 90.1 -2001 table 6.2.1B. The indoor units shall be suitable for operation on 220 plus or minus 6percentage volts, 50Hz, 1 phase AC power supply. 0.8 TR at MGM Warangal	2	No
571	VRF Indoor Units : Hi wall Splits : Supply, Installation, Testing and Commissioning of variable refrigerant flow modular type indoor units wired/wireless remote suitable for R410a refrigerant comprising of all accessories as per the specifications. The indoor units shall be suitable to work on cooling.The minimum Energy Efficiency Ratio shall be as per ASHRAE STANDARDS 90.1 -2001 table 6.2.1B. The indoor units shall be suitable for operation on 220 plus or minus 6percentage volts, 50Hz, 1 phase AC power supply. 1.0 TR at MGM Warangal	2	No
572	VRF Indoor Units : Hi wall Splits : Supply, Installation, Testing and Commissioning of variable refrigerant flow modular type indoor units wired/wireless remote suitable for R410a refrigerant comprising of all accessories as per the specifications. The indoor units shall be suitable to work on cooling.The minimum Energy Efficiency Ratio shall be as per ASHRAE STANDARDS 90.1 -2001 table 6.2.1B. The indoor units shall be suitable for operation on 220 plus or minus 6percentage volts, 50Hz, 1 phase AC power supply. 1.25 TR at MGM Warangal	2	No

573	VRF Indoor Units : Hi wall Splits : Supply, Installation, Testing and Commissioning of variable refrigerant flow modular type indoor units wired/wireless remote suitable for R410a refrigerant comprising of all accessories as per the specifications. The indoor units shall be suitable to work on cooling. The minimum Energy Efficiency Ratio shall be as per ASHRAE STANDARDS 90.1 -2001 table 6.2.1B. The indoor units shall be suitable for operation on 220 plus or minus 6percentage volts, 50Hz, 1 phase AC power supply. 1.50 TR at MGM Warangal	4	No
574	Cassette Units : Supply, Installation, Testing and Commissioning of variable refrigerant flow modular type indoor units wired/wireless remote suitable for R410a refrigerant comprising of all accessories as per the specifications. The indoor units shall be suitable to work on cooling mode. The minimum Energy Efficiency Ratio shall be as per ASHRAE STANDARDS 90.1 -2001 table 6.2.1B. The indoor units shall be suitable for operation on 220 plus or minus 6percentage volts, 50Hz, 1 phase AC power supply. 3.0 TR – 4 way at MGM Warangal	1	No
575	Supply, Installation, Testing and Commissioning of Hard copper REFRIGERANT PIPING of 16swg various sizes with necessary supports, fittings, interconnecting the liquid and suction lines between the aircooled outdoor units and the indoor units. The piping shall be carried out of Hard drawn copper pipes of type K with soldered / brazed socket fittings. Isolating valves shall be provided to isolate each compressor, strainers, sight glass and any other component requiring proper operation and maintenance. Both the suction and liquid lines shall be insulated with 19mm thick closed cell insulation for above 25mm dia , 13mm thick for pipes below 25mm dia . The insulation finished with treated woven glass fiber reinforced covering for inside Piping and including making required holes in the wall and re finishing and water tight of holes after laying holes as per the specifications and approved drawings at MGM Warangal	1	Lot
576	Supply, Installation , Testing and Commissioning of Refnet joints to be provided in refrigerant pipe line. Material of construction for fittings shall be similar to refrigerant piping. at MGM Warangal	10	Set
577	Supply and Installation of control cum transmission wiring of size 3C x 1.5 Sqmm copper wire to be laid in heavy grade PVC conduit including all fixing and accessories as at MGM Warangal	150	Rmt
578	Supply and Installation of cabling of size 2C x 1 Sqmm copper wire to be laid in heavy grade PVC conduit including all fixing and accessories as per the approved routing. at MGM Warangal	100	Rmt
579	SITC of Oxygen Manifold Emergency for 1 plus 1 Cylinders, as per technical specifications.	1	Set
580	SITC of Oxygen Outlets with matching probes, as per HTM-2022/02-01 of UK/NFPA99C of USA as per enclosed technical specifications - Imported	4	each
581	SITC of Oxygen Flowmeter with Humidifier, CE Certified with four digit number as per enclosed technical specifications - Imported	4	each

582	SITC of Nitrous Oxide Manifold Emergency for 1 Cylinder, with high pressure Regulator, NRV, tailpipes etc. as per technical specifications	1	Set
583	SITC of N2O Outlets with matching probes, as per HTM-2022/02-01 of UK/NFPA99C of USA as per enclosed technical specifications - Imported	4	each
584	SITC of CO2 Manifold for 2 Cylinders, with high pressure Regulator, NRV, tailpipes etc. as per technical specifications	1	Set
585	SITC of CO2 Outlets with matching probes, as per HTM-2022/02-01 of UK/NFPA99C of USA as per enclosed technical specifications - Imported	4	each
586	SITC of MEDICAL Grade BS EN: 13348 Kite Marked 12mm COPPER PIPE at MGM Warangal	24	Rmt
587	SITC of MEDICAL Grade BS EN: 13348 Kite Marked 15mm COPPER PIPE at MGM Warangal	114	Rmt
588	SITC of MEDICAL Grade BS EN: 13348 Kite Marked 22mm COPPER PIPE at MGM Warangal	36	Rmt
589	SITC of MEDICAL Grade BS EN: 13348 Kite Marked 28mm COPPER PIPE at MGM Warangal	18	Rmt
590	SITC of Touch type LCD Area Alarm and Zonal Valve box- as per HTM 2022/02-01/ NFPA99C as per enclosed technical specifications imported for 3 gases at MGM Warangal	1	each
591	SITC of Touch type LCD Area Alarm and Zonal Valve box- as per HTM 2022/02-01/ NFPA99C as per enclosed technical specifications imported for Master Main Alarm including all Gases at MGM Warangal	1	each
592	SITC of Medical Line Valve, As per CE Certified/UL Listed, As per Technical Specifications- Indian 15mm OD at MGM Warangal	3	each
593	SITC of Medical Line Valve, As per CE Certified/UL Listed, As per Technical Specifications- Indian 22mm OD at MGM Warangal	3	each
594	SITC of Medical Line Valve, As per CE Certified/UL Listed, As per Technical Specifications- Indian 28mm OD at MGM Warangal	4	each
595	SITC of Bed Head Panel - as per HTM 2022/02-01/ NFPA99C as per enclosed technical specifications at MGM Warangal	2	each