

INDIAN INSTITUTE OF TECHNOLOGY BOMBAY
ESTATE OFFICE

EO/A/UMBRELLA/HOSTEL/WKS-263/24-25

Name of Work : Term contract for structural repairs/ renovation/ retrofitting works, addition and alteration works, waterproofing, painting and minor construction works at Hostel area in the IIT Bombay

Schedule of Work

| Sr. No. | Description | Qty | Rate in Rs. | Unit | Amount in Rs. |
|----------|---|----------|-------------|------|---------------|
| 1 | Dismatling & Removing works | | | | |
| 1.01 | Removing damaged doors, windows with/without frame, ventilators of any size and type and stacking the same at site for taking away the same out of IIT Campus etc all complete as directed by Engineer In-Charge. | 300.00 | 415.96 | Nos | 1,24,788.00 |
| 1.02 | Removing teak wood or aluminium paneled / partly glazed or veneer / plywood partitions, any type of ceiling carefully without damaging the frame or panels and taking out the same outside IIT Campus etc all complete as directed by Engineer In-Charge. | 300.00 | 46.66 | Sqm | 13,998.00 |
| 1.03 | Carefully removing the existing old and damaged G.I. pipes of any diameter floor / walls / slab/ trenches etc including excavation & refilling trenches / holes after taking out pipes manually/mechanical means without damaging the structures / existing pipe system and taking away the same out of IIT Campus etc. all complete as directed by Engineer In-Charge. (15% amount of this item will be deducted for scrap value of material). | 1,000.00 | 124.52 | Rmt | 1,24,520.00 |
| 1.04 | Carefully removing the existing old and damaged C.I. / PVC / HDPE / DI pipes within the building from floor / slab/ wall/trenches with out damaging the structure and taking out the same out of IIT Campus etc. all complete as directed by Engineer In-Charge. (15% amount of this item will be deducted for scrap value of material). | 500.00 | 68.00 | Rmt | 34,000.00 |
| 1.05 | Carefully removing urinal pan/ hand wash basin/ Flush tanks/ European WC with brackets including disconnecting the sanitary and water supply connections, removing the MS supports and taking out dismantled material out of IIT campus etc. all complete as directed by Engineer In-Charge. | 500.00 | 104.00 | Nos | 52,000.00 |
| 1.06 | Taking out old and damaged C.I. / PVC nahani trap with connecting pieces from floor carefully and taking out dismantled material out of campus etc. all complete as directed by Engineer In-Charge. | 300.00 | 190.00 | Nos | 57,000.00 |
| 1.07 | Removing existing open or concealed flush valve/ urinal sensors from its position without damaging the side tiles, walls etc. and taking away the same outside campus etc. all complete as directed by Engineer In-Charge. | 300.00 | 377.00 | Nos | 1,13,100.00 |
| 1.08 | Dismantling plain cement concrete work including breaking concrete by chiselling, wedging etc., and stacking the same at suitable locations for taking away out of IIT campus etc. all complete as directed by Engineer In-Charge. | 50.00 | 1,243.81 | Cum | 62,190.50 |
| 1.09 | Pulling down burnt brick masonry/block masonry (in cement mortar) including lowering down debris, sorting out serviceable bricks/blocks and stacking the same at suitable locations in the building premises for taking away out of IIT campus etc. all complete as directed by Engineer In-Charge. | 50.00 | 1,704.21 | Cum | 85,210.50 |
| 1.10 | Dismantling stone masonry in cement mortar with plaster / pointing without dust nuisance including sorting out the stone chips and debris separately and stacking at suitable location for taking outside IIT campus etc. all complete as directed by Engineer In-Charge. | 25.00 | 2,033.98 | Cum | 50,849.50 |
| 1.11 | Dismantling Reinforced cement concrete work including breaking concrete by chiselling, wedging including covering area with jute kantan to avoid spreading of dust etc., stacking the debris upto a distance of 50 metres or stacking at suitable location for taking outside IIT campus etc. all complete as directed by Engineer In-Charge. | 50.00 | 2,938.03 | Cum | 1,46,901.50 |
| 1.12 | Removing the old cement concrete or any type of tiles from floor / wall carefully including levelling the surface, cleaning the site, stacking the debris at suitable location to take away out of IIT campus etc. all complete as directed by Engineer In-charge. | 1,000.00 | 93.72 | Sqm | 93,720.00 |

| | | | | | |
|------|---|----------|----------|-----|-------------|
| 1.13 | Removing the existing damaged fencing, shutters, grills, framework, etc of any size & type with fittings of any height with steel members, chain links, barbed wires & concertina and stacking the same on approved location as directed or taking away the same out of IIT campus including breaking, cutting, transportation, loading, unloading and cleaning the site with working platform/setpladder wherever required etc all complete as directed by Engineer In-Charge. | 5,000.00 | 13.00 | Kg | 65,000.00 |
| 1.14 | Taking out existing CC interlocking paver blocks from parking area, footpath, central verge etc. including removal of rubbish, disposal of unserviceable material upto 50 mtr distance. Stacking of serviceable material at suitable location as directed etc all complete as directed by Engineer In-Charge. | 100.00 | 109.02 | Sqm | 10,901.86 |
| 1.15 | Removing galvanised iron or asbestos cement sheet roof covering and taking out the same outside IIT Campus, working platform/stepladder, etc all complete as directed by Engineer In-Charge. (Recovery of scrap will be done @ Rs. 5 per kg for actual weight of material.) | 100.00 | 136.46 | Sqm | 13,646.00 |
| 1.16 | Carefully removing external weather shade / chajja at any height and lowering down at suitable location to take away out of IIT campus etc. all complete as directed by Engineer In-charge. (5% amount of this item will be deducted for scrap value of material) | 200.00 | 554.00 | Nos | 1,10,800.00 |
| 1.17 | Carefully removing the existing damaged PVC/ wooden flooring sheets / tiles cleaning and leveling the surface and taking out the same outside IIT Campus as directed etc. all complete as directed by Engineer In-charge. | 100.00 | 54.00 | Sqm | 5,400.00 |
| 1.18 | Removing the existing brickbat coba waterproofing treatment from terrace up to any thickness including floor tiles, plaster, etc without making any damages to the mother slab with the use of electrically operated cutting tools, sharp chisels, levelling and cleaning the floor surface for providing new specialised waterproofing treatment, lowering down debris without causing dust nuisance and stacking the debris upto a distance at suitable location etc all complete as directed by Engineer In-charge. | 150.00 | 2,840.00 | Cum | 4,26,000.00 |
| 1.19 | Removing existing waterproofing treatment from the WC/Bathroom up to any thickness including tiles, plaster etc. of any thickness without damages to structure, pipes using electrically operated cutting tools, leveling and cleaning the surface, including lowering down the debris without causing dust nuisance and stacking the debris upto a distance at suitable location etc all complete as directed by Engineer In-charge. | 150.00 | 1,133.00 | Cum | 1,69,950.00 |
| 1.20 | Removing the existing loose and damaged china mosaic flooring waterproofing treatment from terrace area up to any thickness with out making any damages to the roof slab with the use of sharp chisels, levelling and cleaning the roof surface for providing new specialised waterproofing treatment, lowering down debris without causing dust nuisance and stacking the debris upto a distance at suitable location etc. all complete as directed by Engineer In-charge. | 300.00 | 420.00 | Sqm | 1,26,000.00 |
| 1.21 | Removing the existing waterproofing sheet bitumen/dongri cloth/ tarfelt layer coating etc, of any thickness of terrace water proofing without damages to structure,brick bat layer, using electrically operated cutting tools, (pulversing/boshing tool breaking machine to avoid crack and vibration to structure) grinder, leveling and cleaning the surface for providing new waterproofing treatment etc. all complete, and collecting the removed membrane in guny bags and lowering down carefully with tied rope without causing dust nuisance etc all complete as directed by Engineer In-charge. | 500.00 | 89.00 | Sqm | 44,500.00 |
| 1.22 | Dismantling PCC, IPS layer of any thickness above brick bat coba(till naked slab if brickbat coba is absent) from terrace floor/chajjas of building carefully without damaging the existing brickbat(if present), levelling the surface, cleaning the site, stacking the debris outside at designated spot etc. all complete as directed by Engineer In-charge. | 200.00 | 2,013.91 | Sqm | 4,02,782.00 |
| 1.23 | Removing surplus excavated materials, debris etc. from site of work to anywhere in IITB campus as directed beyond the initial lead of 50 mtrs including, excavation, loading, transporting to low lying area, unloading, spreading and levelling, etc all complete as directed by Engineer In-Charge. (30% voids will be deducted of inside hold of truck for truck measurement). | 500.00 | 181.00 | Cum | 90,500.00 |
| 1.24 | Removing soling without dust nuisance including sorting out the stone chips and debris separately and stacking at suitable location as directed etc. all complete as directed by Engineer In-Charge. | 50.00 | 235.00 | Cum | 11,750.00 |
| 1.25 | Disposing debris, loose stones, boulders, concrete pieces etc. collected and stacked as directed including loading in trucks, transporting out of IIT Campus including obtaining permission of BMC competent authorities for disposing off on to their approved locations.(30% voids will be deducted in case of truck measurement) etc. all complete as directed by Engineer In-charge. | 1,000.00 | 688.00 | Cum | 6,88,000.00 |

| | | | | | |
|----------|---|----------|----------|----------------|---------------------|
| | | | | Total 1 | 31,23,507.86 |
| 2 | Earthwork | | | | |
| 2.01 | Site cleaning including surface dressing of the ground including removing vegetation and inequalities and levelling/disposal of rubbish, debris, vegetation, etc all complete as directed by Engineer In-Charge. | 1,000.00 | 28.25 | Sqm | 28,250.00 |
| 2.02 | Earth work in surface excavation not exceeding 30 cm in depth but exceeding 1.5 m in width as well as 10 sqm on plan including getting out and disposal of excavated earth upto 50 m and lift upto 1.5 m, providing necessary barricading around excavated area etc. all complete as directed by Engineer In-Charge. | 500.00 | 107.36 | Sqm | 53,680.00 |
| 2.03 | Excavation for foundation, trenches, Roadway etc. in earth, soil of all types, sand, gravel, soft and hard murum, soft rock etc. including removing the excavated materials up to a distance of 50 meters beyond the site of work and lift up to 1.50 meters, stacking and spreading as directed preparing the bed for the foundation and necessary dewatering using pump, backfilling, ramming, watering, including shoring and strutting, providing necessary barricading around excavated area etc. all complete as directed by Engineer In-Charge. | 1,000.00 | 287.82 | Cum | 2,87,820.00 |
| 2.04 | Excavation for foundation, trenches, Roadway etc. in earth, soil of all types, sand, gravel, loose boulders, soft and hard murum, soft rock etc. beyond 1.50 meter and upto 3.00 meter depth including removing the excavated materials up to a distance of 50 meters beyond the building area, stacking and spreading as directed including dewatering using pumps, preparing the bed for the foundation and necessary backfilling, ramming, watering complete including shoring and strutting, providing necessary barricading around excavated area etc. all complete as directed by Engineer In-Charge. | 200.00 | 415.25 | Cum | 83,050.00 |
| 2.05 | Excavation for foundation, trenches, Roadway etc. in earth, soil of all types, sand, gravel, loose boulders, soft and hard murum, soft rock etc. beyond 3.0 meter and upto 4.5 meter depth including removing the excavated materials up to a distance of 50 meters beyond the building area, stacking and spreading as directed including dewatering using pumps, preparing the bed for the foundation and necessary backfilling, ramming, watering complete including shoring and strutting, providing necessary barricading around excavated area etc. all complete as directed by Engineer In-Charge. | 100.00 | 603.84 | Cum | 60,384.00 |
| 2.06 | Excavation work in Hard rock (blasting prohibited) by mechanical means/manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan), including dressing of sides and ramming of bottoms upto 1.5m, including getting out the excavated rock and stacking of the same as directed, providing necessary barricading around excavated area etc. all complete as directed by Engineer In-Charge. | 50.00 | 1,262.87 | Cum | 63,143.50 |
| 2.07 | Excavation work in Hard rock (blasting prohibited) by mechanical means (Hydraulic excavatory) manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan), including dressing of sides and ramming of bottoms, beyond 1.5m upto 3.0m including getting out the excavated rock and stacking of the same as directed including dewatering using pumps, necessary backfilling, ramming, watering, providing necessary barricading around excavated area etc. all complete as directed by Engineer In-Charge. | 50.00 | 1,450.91 | Cum | 72,545.50 |
| 2.08 | Excavation work in Hard rock (blasting prohibited) by mechanical means (Hydraulic excavatory) manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan), including dressing of sides and ramming of bottoms, beyond 3m upto 4.5m including getting out the excavated rock and stacking of the same as directed including dewatering using pumps, necessary backfilling, ramming, watering, providing necessary barricading around excavated area etc. all complete as directed by Engineer In-Charge. | 50.00 | 1,638.94 | Cum | 81,947.00 |
| 2.09 | Filling in open area with approved moorum brought from outside sources and filling in layers not exceeding 150mm thick including breaking clods, spreading including charges of transportation, RTO, royalty etc all complete as directed by Engineer In-Charge. (16% voids will be deducted of inside hold of truck for truck measurement). | 500.00 | 891.31 | Cum | 4,45,655.00 |
| 2.10 | Filling in open area with approved soil brought from outside sources and filling in layers not exceeding 150mm thick including breaking clods, spreading including charges of transportation, RTO, royalty etc all complete as directed by Engineer In-Charge. (16% voids will be deducted of inside hold of truck for truck measurement). | 500.00 | 626.67 | Cum | 3,13,335.00 |
| | | | | Total 2 | 14,89,810.00 |
| 3 | Concrete work | | | | |

| | | | | | |
|------|--|--------|-----------|-----|-------------|
| 3.01 | Providing and laying plain cement concrete M-20 of trap metal for leveling/bedding, flooring, plinth protection, etc. including bailing out water (dewatering), formwork, compacting and curing etc. all complete as directed by Engineer In-Charge. | 100.00 | 7,810.06 | Cum | 7,81,006.00 |
| 3.02 | Providing and laying in position ready mix (RMC) or site batched design mix plain M-20 grade cement concrete using trap metal, river sand and cement as per approved mix design based on guidelines given in relevant IS codes for foundation and bedding and all works upto plinth level. The item inclusive of admixtures of approved manufacturing company required during the period of transportation to maintain the workability of concrete. The ready mix concrete required for approved grade should be from Plant which is certified / approved by the Engineer In-charge. The RMC concrete should be manufacture in fully automatic batching plant and transported to site of work in transit mixer for all leads & lifts having continuous agitated mixer including admixtures to accelerate, retard setting of concrete to improve the workability impairing strength and durability. The item includes pumping of RMC from transit to site of laying includes bailing out water manually centering, shuttering, compacting by vibrator and curing etc. all complete as directed by Engineer In-Charge. (Excluding reinforcement) | 10.00 | 8,415.61 | Cum | 84,156.10 |
| 3.03 | Providing and laying in position ready mix (RMC) or site batched design mix plain M-20 grade cement concrete using trap metal, river sand and cement as per approved mix design based on guidelines given in relevant IS codes for all works above plinth level upto any floor. The item inclusive of admixtures of approved manufacturing company required during the period of transportation to maintain the workability of concrete. The ready mix concrete required for approved grade should be from Plant which is certified / approved by the Engineer In-charge. The RMC concrete should be manufacture in fully automatic batching plant and transported to site of work in transit mixer for all leads & lifts having continuous agitated mixer including admixtures to accelerate, retard setting of concrete to improve the workability impairing strength and durability. The item includes pumping of RMC from transit to site of laying includes bailing out water manually centering, shuttering, compacting by vibrator. Curing, and working platform wherever required etc. all complete as directed by Engineer In-Charge. (Excluding reinforcement) | 20.00 | 10,043.46 | Cum | 2,00,869.22 |
| 3.04 | Providing and laying in position Ready mix or machine batched and machine mixed design mix M-25 grade cement concrete for all work up to plinth level for reinforced cement concrete work, including pumping of concrete to site of laying but excluding the cost of centering, shuttering, finishing and reinforcement, including admixtures in recommended proportions as per relevant IS codes to accelerate, retard setting of concrete, improve workability without impairing strength and durability as per direction of Engineer-in-charge including compacting, roughening the surface if special finish is to be provided, casting cubes and testing etc. all complete as directed by Engineer In-Charge. | 50.00 | 8,713.26 | Cum | 4,35,663.14 |
| 3.05 | Providing and laying in position Ready mix or machine batched and machine mixed design mix M-25 grade cement concrete for all works above plinth level upto any floor for reinforced cement concrete work, including pumping of concrete to site of laying but excluding the cost of centering, shuttering, finishing and reinforcement, including admixtures in recommended proportions as per relevant IS codes to accelerate, retard setting of concrete, improve workability without impairing strength and durability as per direction of Engineer-in-charge including compacting, roughening the surface if special finish is to be provided, working platform wherever required, casting cubes and testing etc. all complete as directed by Engineer In-Charge. | 50.00 | 10,341.17 | Cum | 5,17,058.37 |
| 3.06 | Providing and laying in position Ready mix or machine batched and machine mixed design mix M-30 grade cement concrete for all works up to plinth level for reinforced cement concrete work, including pumping of concrete to site of laying but excluding the cost of centering, shuttering, finishing and reinforcement, including admixtures in recommended proportions as per relevant IS codes to accelerate, retard setting of concrete, improve workability without impairing strength and durability as per direction of Engineer-in-charge including compacting, roughening the surface if special finish is to be provided, casting cubes and testing etc. all complete as directed by Engineer In-Charge. | 10.00 | 8,855.29 | Cum | 88,552.93 |

| | | | | | |
|------|---|----------|-----------|-----|--------------|
| 3.07 | Providing and laying in position Ready mix or machine batched and machine mixed design mix M-30 grade cement concrete for all works above plinth level upto any floor for reinforced cement concrete work, including pumping of concrete to site of laying but excluding the cost of centering, shuttering, finishing and reinforcement, including admixtures in recommended proportions as per relevant IS codes to accelerate, retard setting of concrete, improve workability without impairing strength and durability as per direction of Engineer-in-charge including compacting, roughening the surface if special finish is to be provided, working platform wherever required casting cubes and testing etc. all complete as directed by Engineer In-Charge. | 100.00 | 10,513.30 | Cum | 10,51,329.95 |
| 3.08 | Providing and laying in position Ready mix M-40 grade cement concrete for all work up to plinth level for reinforced cement concrete work, including pumping of concrete to site of laying but excluding the cost of centering, shuttering, finishing and reinforcement, including admixtures in recommended proportions as per relevant IS codes to accelerate, retard setting of concrete, improve workability without impairing strength and durability as per direction of Engineer-in-charge including compacting, roughening the surface if special finish is to be provided, casting cubes and testing etc. all complete as directed by Engineer In-Charge. | 10.00 | 9,139.40 | Cum | 91,394.04 |
| 3.09 | Providing and laying in position Ready mix M-40 grade cement concrete for all work above plinth level upto any floor for reinforced cement concrete work, including pumping of concrete to site of laying but excluding the cost of centering, shuttering, finishing and reinforcement, including admixtures in recommended proportions as per relevant IS codes to accelerate, retard setting of concrete, improve workability without impairing strength and durability as per direction of Engineer-in-charge including compacting, roughening the surface if special finish is to be provided, working platform wherever required, casting cubes and testing etc. all complete as directed by Engineer In-Charge. | 50.00 | 10,767.31 | Cum | 5,38,365.42 |
| 3.10 | Centering and shuttering including strutting, propping etc. and removal of form for all heights : Foundations, footings, bases of columns, coping, raft etc all complete as directed by Engineer In-Charge. | 200.00 | 308.99 | Sqm | 61,798.97 |
| 3.11 | Centering and shuttering including strutting, propping etc. and removal of form for all heights : Suspended floors, roofs, landings, staircase waist slab, balconies, cantilever chajjas and access platform etc all complete as directed by Engineer In-Charge. | 200.00 | 769.15 | Sqm | 1,53,830.16 |
| 3.12 | Centering and shuttering including strutting, propping etc. and removal of form for all heights : Lintels, beams, columns plinth beams, girders, bressumers and cantilevers etc all complete as directed by Engineer In-Charge. | 200.00 | 610.41 | Sqm | 1,22,082.81 |
| 3.13 | Providing and fixing in position tor steel bar having grade Fe-500D or more for reinforcement of various diameters for R.C.C. footings, foundations, slabs, beams, columns, canopies, staircases, chajjas, lintels, pardies, coping, fins, dowel bars with sleeve, tie bar, any other required work etc. as per detailed designs, drawings and schedules including cutting, bending, hooking the bars, binding with wires or tack welding and supporting as required, working platform wherever required etc. all complete as directed by Engineer In-Charge. | 5,000.00 | 89.95 | Kg | 4,49,770.85 |
| 3.14 | Providing RMC / machine mix and laying of 75mm thick vacuum dewatered (Tremix) concrete of grade M 25 of trap metal as per requirements including dewatering , steel form work, compaction , panels as specified and as per manufacturer of equipment, forming construction joints by square edge painted with bitumen, including providing reinforcement of G.I mesh of 12 guage laid along with specified covering etc, power floating and broom finishing or finishing smooth as specified, cleaning, curing surface, working platform wherever required, etc. all complete as directed by Engineer In-Charge. | 100.00 | 1,560.00 | Sqm | 1,56,000.00 |
| 3.15 | Providing and laying plum concrete of M20 mix using stone of size not more than 230mm and proportion of plumto concrete is at the rate of 20:80 including curing, formwork, dewatering, etc. all complete as directed by Engineer In-Charge. | 30.00 | 7,949.00 | Cum | 2,38,470.00 |
| 3.16 | Screed Concrete for Repairs: a) P/A polymer slurry/bonding coat of approved brand of Polymer & Cement in ratio 1:1, to exposed RCC members (Slab) within 30 minutes of P/Casting of concrete b) P/L Concrete screed of conc. 1:1:2 Volumetric Mix (Strength not less than 25 N/mm2), over the treated surface of the floor slab, average thickness 50mm etc. all complete as directed by Engineer In-Charge. | 50.00 | 14,192.00 | Cum | 7,09,600.00 |

| | | | | | |
|----------|--|----------|----------|----------------|---------------------|
| 3.17 | Cutting Transverse/ contraction/ expansion, construction & longitudinal joints by groove cutting machine upto required depth including labour, trasportation, tools and plants etc. all complete as directed by Engineer In-charge. | 200.00 | 20.00 | Rmt | 4,000.00 |
| 3.18 | Providing and filling the joint using foam baker rod as base with cold Polysulfide with labour, trasportation, tools and plants etc. All complete as directed by Engineer In-charge. | 200.00 | 252.00 | Rmt | 50,400.00 |
| | | | | Total 3 | 57,34,347.96 |
| 4 | Stonework | | | | |
| 4.01 | Laying dry trap / rubble stone soling of required thickness including hand packing and compacting etc. complete using IITB stone including transporting stone from various locations from IIT campus and cutting the stone in required size as per requirement etc all complete as directed by Engineer In-charge. | 50.00 | 808.00 | Cum | 40,400.00 |
| 4.02 | Providing & laying dry trap / rubble stone soling of required thickness including hand packing and compacting in proper level etc. all complete as directed by Engineer In-Charge. | 200.00 | 1,889.00 | Cum | 3,77,800.00 |
| 4.03 | Providing uncoursed rubble masonry of trap stones in cement mortar 1:6 (Cement:sand) including raking out joints when plastering is to be done, striking out joints, watering and pointing with cement mortar 1:3 on outside exposed faces, including providing M-20 grade concrete block header @ 1 header per sqm. to the full thickness of wall, providing weep holes with 100mm dia P.V.C pipes, working platform wherever required, etc. all complete as directed by Engineer In-Charge. | 50.00 | 6,676.02 | Cum | 3,33,801.00 |
| 4.04 | Providing uncoursed rubble masonry (using IITB stones) of trap stones in cement mortar 1:6 (Cement:sand) including raking out joints when plastering is to be done, striking out joints, watering and pointing with cement mortar 1:3 on outside exposed faces, including providing M-20 grade concrete block header @ 1 header per sqm. to the full thickness of wall, providing weep holes, with 100mm dia P.V.C pipes including collecting and transporting stone form various locations from IIT Campus upto working site, cutting stones/ bouldres in piceses as per requirement, working platform wherever required etc. all complete as directed by Engineer In-Charge. | 30.00 | 3,745.00 | Cum | 1,12,350.00 |
| 4.05 | Providing coursed rubble masonry of trap stones in cement mortar 1:6 (Cement:sand) including raking out joints when plastering is to be done, striking out joints, watering and pointing with cement mortar 1:3 on outside exposed faces, including providing M-20 grade concrete block header @ 1 header per sqm. to the full thickness of wall, providing weep holes, with 100mm dia P.V.C pipes, working platform wherever required etc. all complete as directed by Engineer In-Charge. | 50.00 | 7,941.35 | Cum | 3,97,067.50 |
| 4.06 | Pointing on stone work with cement mortar 1:3 (1 cement : 3 fine sand) :Flush/ruled/raised pointing as per existing pattern in proper line and level etc. all complete as directed by Engineer In-Charge. | 1,000.00 | 320.43 | Sqm | 3,20,430.00 |
| 4.07 | Providing and laying dry trap / rubble stone pitching to the sloping side in average 200 to 300mm thickness including cuffling, dressing and levelling the undulation of sloping surface, making uniform slope in line and level, laying stone pitching in line level and pointing with cement mortar 1:3 on outside exposed faces, etc. including removing loose earth, cleaning compacting the base providing and fixing 100mm dia. PVC pipe for weep holes at in 1m c/c in staggered position wherever required, etc. all complete as directed by Engineer In-Charge. | 1,000.00 | 824.74 | Sqm | 8,24,740.00 |
| 4.08 | Providing and laying dry trap / rubble stone pitching to the sloping side in average 200 to 300mm thickness including cuffling, dressing and levelling the undulation of sloping surface, making uniform slope in line and level, laying stone pitching in line level etc. including removing loose earth, cleaning compacting the base providing and fixing 100mm dia. PVC pipe for weep holes at in 1m c/c in staggered position wherever required, etc. all complete as directed by Engineer In-Charge. | 500.00 | 650.00 | Sqm | 3,25,000.00 |
| | | | | Total 4 | 27,31,588.50 |
| 5 | Brickwork | | | | |
| 5.01 | Providing second class burnt brick masonry with IS approved quality well burnt bricks having crushing strength of 35 kg. / square cm. In cement mortar 1:4 upto plinth level including striking joints, raking out joints, watering and working platform etc. all complete as directed by Engineer In-Charge. | 50.00 | 6,905.35 | Cum | 3,45,267.48 |
| 5.02 | Providing second class burnt brick masonry with IS approved quality well burnt bricks having crushing strength of 35 kg. / square cm. In cement mortar 1:4 in superstructure above plinth level including striking joints, raking out joints, watering and working platform etc. all complete as directed by Engineer In-Charge. | 100.00 | 8,540.98 | Cum | 8,54,098.00 |

| | | | | | |
|----------|---|----------|----------|----------------|---------------------|
| 5.03 | Providing second class burnt brick masonry with IS approved quality well burnt bricks having crushing strength of 35 kg. / square cm. in cement mortar 1:6 upto plinth level including striking joints, raking out joints, watering and working platform etc. all complete as directed by Engineer In-Charge. | 50.00 | 6,680.84 | Cum | 3,34,042.00 |
| 5.04 | Providing second class burnt brick masonry with IS approved quality well burnt bricks having crushing strength of 35 kg. / square cm. In cement mortar 1:6 in superstructure above plinth level including striking joints, raking out joints, watering and working platform etc. all complete as directed by Engineer In-Charge. | 100.00 | 8,316.47 | Cum | 8,31,647.12 |
| 5.05 | Providing second class burnt brick masonry with IS approved quality well burnt bricks having crushing strength of 35 kg. / square cm. in cement mortar 1:4 at any level including providing RCC palti M-20 concrete (1:1½:3), 100mm x 100mm to the full length of wall at every one meter height, using two numbers 8mm dia tor steel reinforcement, working platform, raking out joints and watering etc. all complete as directed by Engineer In-Charge. | 200.00 | 1,021.50 | Sqm | 2,04,300.82 |
| 5.06 | Providing and laying autoclaved aerated cement blocks masonry with 100mm/125mm thick AAC blocks in super structure above plinth level with RCC band at sill level and lintel level with approved block laying polymer modified adhesive mortar, working platform, etc. all complete as directed by Engineer In-Charge. (The payment of RCC band and reinforcement shall be made for seperately). | 30.00 | 8,920.97 | Cum | 2,67,628.96 |
| 5.07 | Providing and laying autoclaved aerated cement blocks masonry with 150mm/230mm/300 mm thick AAC blocks in super structure above plinth level with RCC band at sill level and lintel level with approved block laying polymer modified adhesive mortar, working platform, etc. all complete as directed by Engineer In-Charge. (The payment of RCC band and reinforcement shall be made for seperately). | 30.00 | 7,017.88 | Cum | 2,10,536.40 |
| 5.08 | Removing loose mortar from the brick joints wherever plaster has removed filling all the joints with 1:2 cement mortar mixed with impermo waterproofing compound 1kg / bag of cement or pidiproof of pidilite industries Ltd. waterproofing compound @ 200 ml per bag of cement or acquaproof waterproofing compound, watering the surface fixing the new brick / brick pieces wherever bricks are broken, curing the surface and working platform wherever required etc. all complete as directed by Engineer In-charge. | 1,000.00 | 158.00 | Sqm | 1,58,000.00 |
| | | | | Total 5 | 32,05,520.78 |
| 6 | Granite, Marble, Kadappa work | | | | |
| 6.01 | Providing and fixing not less than 16 mm thick gang saw cut, mirror polished, premoulded and prepolished, machine cut marble (area of slab upto 0.50 m2) for kitchen platforms, vanity counters, window sills, facias and similar locations of required size, approved shade, colour and texture laid over 20 mm thick base cement mortar 1:4 (1 cement : 4 coarse sand), joints treated with white cement, mixed with matching pigment, epoxy touch ups, pasting with adhesive including rubbing, curing, moulding and polishing to edges to give high gloss finish etc. all complete as directed by Engineer In-Charge. | 100.00 | 2,916.31 | Sqm | 2,91,631.00 |
| 6.02 | Providing and fixing not less than 16 mm thick gang saw cut, mirror polished, premoulded and prepolished, machine cut Marble (area of slab above 0.50 m2) for kitchen platforms, vanity counters, window sills, facias and similar locations of required size, approved shade, colour and texture laid over 20 mm thick base cement mortar 1:4 (1 cement : 4 coarse sand), joints treated with white cement, mixed with matching pigment, epoxy touch ups, pasting with adhesive including rubbing, curing, moulding and polishing to edges to give high gloss finish etc. all complete as directed by Engineer In-Charge. | 50.00 | 2,648.41 | Sqm | 1,32,420.50 |
| 6.03 | Providing and fixing not less than 16 mm thick gang saw cut, mirror polished, premoulded and prepolished, machine cut Granite (black, Cherry/Ruby red and area of slab upto 0.50 m2) for kitchen platforms, vanity counters, window sills, facias and similar locations of required size, approved shade, colour and texture laid over 20 mm thick base cement mortar 1:4 (1 cement : 4 coarse sand), joints treated with white cement, mixed with matching pigment, epoxy touch ups, pasting with adhesive including rubbing, curing, moulding and polishing to edges to give high gloss finish etc. all complete as directed by Engineer In-Charge. | 500.00 | 4,695.23 | Sqm | 23,47,615.00 |

| | | | | | |
|----------|---|-----------|----------|----------------|---------------------|
| 6.04 | Providing and fixing not less than 16 mm thick gang saw cut, mirror polished, prepolished and prepolished, machine cut Granite (black, Cherry/Ruby red and area of slab upto 0.50 m2) for kitchen platforms, vanity counters, window sills, facias and similar locations of required size, approved shade, colour and texture laid over 20 mm thick base cement mortar 1:4 (1 cement : 4 coarse sand), joints treated with white cement, mixed with matching pigment, epoxy touch ups, pasting with adhesive including rubbing, curing, moulding and polishing to edges to give high gloss finish etc. all complete as directed by Engineer In-Charge. | 500.00 | 4,440.36 | Sqm | 22,20,180.00 |
| 6.05 | Providing and fixing not less than 16 mm thick gang saw cut, mirror polished, premoulded and prepolished, machine cut Granite of any colour (except black, Cherry/Ruby red and area of slab upto 0.50 m2) for kitchen platforms, vanity counters, window sills, facias and similar locations of required size, approved shade, colour and texture laid over 20 mm thick base cement mortar 1:4 (1 cement : 4 coarse sand), joints treated with white cement, mixed with matching pigment, epoxy touch ups, pasting with adhesive including rubbing, curing, moulding and polishing to edges to give high gloss finish etc. all complete as directed by Engineer In-Charge. | 500.00 | 3,567.51 | Sqm | 17,83,755.00 |
| 6.06 | Providing and fixing not less than 16 mm thick gang saw cut, mirror polished, premoulded and prepolished, machine cut Granite of any colour (except black, Cherry/Ruby red and area of slab upto 0.50 m2) for kitchen platforms, vanity counters, window sills, facias and similar locations of required size, approved shade, colour and texture laid over 20 mm thick base cement mortar 1:4 (1 cement : 4 coarse sand), joints treated with white cement, mixed with matching pigment, epoxy touch ups, pasting with adhesive including rubbing, curing, moulding and polishing to edges to give high gloss finish etc. all complete as directed by Engineer In-Charge. | 200.00 | 3,312.65 | Sqm | 6,62,530.00 |
| 6.07 | Providing and fixing Kadappa stone slab for kitchen platform/cupboard shelves/framework of approved type and design not less than 25mm thick in cement mortar 1:4 including filling joints, curing, cleaning etc. all complete as directed by Engineer In-Charge. | 200.00 | 1,144.00 | Sqm | 2,28,800.00 |
| 6.08 | Providing and laying black granite slabs of not less than 16mm thick of size 12x12 inch for bathroom corner piece with cement mortar including moulding, filling joints with white cement to match colour of slab, curing polishing and making grooves in the walls without damaging the dado tiles, cleaning, etc. all complete as directed by Engineer In-Charge. | 200.00 | 740.00 | Nos | 1,48,000.00 |
| | | | | Total 6 | 78,14,931.50 |
| 7 | Building repairs | | | | |
| 7.01 | Carefully removing the internal /external cement plaster or top of concrete surface of any thickness and at any height covering with plastic/tarpaulin for floor wherever required without causing dust nuisance and stacking the debris up to a distance of 50 metre or at suitable location to take away out of IIT campus and cleaning the site etc. all complete as directed by Engineer In-Charge. | 10,000.00 | 45.20 | Sqm | 4,52,000.00 |
| 7.02 | Cutting, demarcating grooves at any height with electrically operated cutter machine between sound and unsound plaster, cracks on external wall, separation cracks etc. all complete as directed by Engineer In-Charge. | 3,000.00 | 43.00 | Rmt | 1,29,000.00 |
| 7.03 | Providing and filling separation crack of 50mm-100mm width and 25mm deep with polymer modified cementitious mortar. Demarcating groove, removing plaster / concrete carefully, washing with potable water. Filling polymer modified cementitious mortar in layers of 20mm thick (applying bond coat at every layer) upto profile of concrete in vicinity (composition of mortar: cement 1Kg.: polymer (SBR) of approved manufacturer 15% by wt. of cement : 3Kg silica sand (grading IS 383, zone II, silt content = 0%) over a polymer + cement bond coat, applying/ making tape on both side of groove, cleaning, finishing to match the plaster in vicinity, stacking of debris at suitable location to take away out of IIT campus, cleaning etc. all complete as directed by Engineer In-Charge. Proportion of Bond coat i.e. SBR polymer + cement in the ratio 1:1 by volume, SBR polymer 150ml, Cement 1 Kg., Silica sand 3.0 kg. (Note: - Demarcating groove, breaking plaster / concrete shall be paid under respective items). | 3,000.00 | 168.00 | Rmt | 5,04,000.00 |

| | | | | | |
|------|---|-------------|--------|-----|----------------|
| 7.04 | Carefully exposing the existing damaged RCC members like columns, beams, slabs, chajjas, paradis, fins etc in patches or any length by using electrical cutting tools/manually means up to any depth till the corroded reinforcement will be opened allround without damaging brickwork, plaster in the vicinity, cleaning the rusted reinforcement and exposed surface by wire brush mechanical device or any other established method and applying alkaline based rust removing solution of approved make and quality with cotton waste swab to reinforcement and allowing to dry the same for 24 hour, brushing of loose particles and applying first coat of rust preventive coating of polymer and cement slurry in 1:1.5 proportion with soft brush without adding water including applying another coat of rust preventing after 4 hours allowing air curing for 48 hours, stacking the debris within 50 meter or at specified location for taking away out of IIT campus, cleaning the site etc. complete, including covering the furniture with plastic sheet while exposing concrete, working platform/stepladder etc. all complete as directed by Engineer In-Charge. Note: Proper tools to be used for removal of concrete. The area in vertical plane shall be measured. | 5,000.00 | 133.00 | Sqm | 6,65,000.00 |
| 7.05 | Providing and applying an effective bond coat of Polymer (SBR) approved by IITB and cement in the proportion of 1:1 using brush in multiple coats as required to accommodate the whole thickness of polymer modified mortar wherever required on the surface of old concrete or repaired concrete etc all complete as directed by Engineer In-Charge. Polymer (SBR) of approved manufacturer should have the following properties: Suspended solid particle should not be less than 40%-specific gravity should not be more than 1.01-PH should not be less than 8.5. Note : The actual consumption of polymer shall be measured for payment on weight basis. Challans/Invoice of authorised dealer will be verified. | 7,500.00 | 417.00 | Kg | 31,27,500.00 |
| 7.06 | Providing & placing in position readymix polymer mortar manufacture by Dr. Fixit, Sunanda, Roff, MC Bouchmey, Chembond and adding water in the proportion of 1:0.14 (polymer mortar: water) in prepared grooves / cracks of the concrete surface in layers as directed including mixing the polymer mortar with water using forced action mixer mild curing with water for 3 days, working platform/stepladder wherever required etc all complete as directed by Engineer In-Charge. Payment will be paid for the actual quantity of polymer mortar used on weight basis. Challans/Invoice of authorised dealer will be verified etc. all complete as directed by Engineer In-Charge. | 2,74,500.00 | 46.00 | Kg | 1,26,27,000.00 |
| 7.07 | Providing and laying super fluid micro concrete of approved manufacturer at any floor after reinforcement treatment coat including mixing with 5mm to 10mm size quartz aggregate in the ratio of 1 part ACC shrikomp to 0.75 part of quartz aggregate by weight providing marine plywood formwork in line and level, cleaning, curing and stepladder/working platform wherever required, etc. complete. the compressive strength of super fluid micro concrete should not be less than 20N / mm2 etc all complete as directed by Engineer In-Charge. Challans/Invoice of authorized dealer will be verified before processing the bills. | 2,000.00 | 67.00 | Kg | 1,34,000.00 |
| 7.08 | Providing and applying HILTY HIT-HY RE 500 injection in RCC including fixing in steel diameter 8mm to 12mm & length 4" to 6" reinforce bars including drilling hole as per manufacturer specifications, blowing out the hole and finishingetc. all complete as directed by Engineer In-Charge. | 50.00 | 675.00 | Nos | 33,750.00 |
| 7.09 | Providing and applying external waterproof plaster using factory made ready mix polymer cement mortar plaster. I) Providing and rendering the prepared surfaces with new sand faced cement plaster of minimum 25mm thick in two coats by using factory made ready mix polymer modified cement plaster waterproof plaster of approved make (M/s Wall Plast, M/s Fare-Matt, Damani) or any other approved brand. II) The base coat of minimum 12-15mm thick using above ready mixed polymer modified mortar plaster to proper plumb level & line including making the plaster surface rough (all as per the manufacturer's specifications) to receive the top finish coat. III) Applying top/finish coat plaster of minimum 10-12mm thickness with similar ready mix polymer cement mortar plaster finishing in perfect plumb, line & level so as to obtain fine sand grain finish by using branded approved variety sponge or using mechanised devise including adding additional required quantity of cement for managing richer mix preferable ordinary portland cement 43 grade variety of approved brand at no extra cost, doing regular curing for minimum 7 days.. etc all complete as directed by Engineer In-Charge. | 5,000.00 | 671.00 | Sqm | 33,55,000.00 |

| | | | | | |
|------|--|----------|--------|-----|--------------|
| 7.10 | Providing and applying acrylic synthetic plaster (dura plast) of minimum 2 mm thickness of IITB approved make manufacturer as per existing/approved pattern over existing/new cement plaster or concrete surface including removing existing paint/synthetic plaster to receive the acrylic synthetic plaster as per manufacturer specification for any height including cleaning, scrapping the surface before application etc all complete as directed by Engineer In-charge. | 1,000.00 | 454.00 | Sqm | 4,54,000.00 |
| 7.11 | Providing internal cement plaster 12mm thick in single coat in cement mortar 1:4 without neeru finish to concrete or brick surfaces in all positions and curing etc. all complete as directed by Engineer In-Charge. | 1,000.00 | 295.85 | Sqm | 2,95,850.00 |
| 7.12 | Providing cement plaster 20mm thick in single coat in cement mortar 1:4 without neeru finish to concrete or brick surfaces in all positions and curing etc. all complete as directed by Engineer In-Charge. | 3,000.00 | 403.51 | Sqm | 12,10,530.00 |
| 7.13 | Providing sand face cement plaster externally using approved screened sand in all positions including base coat of 15mm thick in cement mortar 1:4 using water proofing compound @ 2% by weight of cement and curing the same for not less than two days and keeping the surface of base coat rough to receive the sand faced treatment 6 to 8mm thick in cement mortar 1:4, finishing the surface by taking out grains and curing for 14 days, working platform etc all complete as directed by Engineer In-Charge. | 1,000.00 | 665.00 | Sqm | 6,65,000.00 |
| 7.14 | Providing rough cast/Pebble Dash plaster (matching with existing finish), upto any height above ground level with a mixture of sand and gravel or crushed stone from 6 mm to 10 mm nominal size, dashed over and including the fresh plaster in two layers, under layer 12 mm cement plaster 1:4 (1 cement : 4 coarse sand) using water proofing compound (as per manufacture's specification) and top layer 10 mm cement plaster 1:3 (1 cement : 3 fine sand) mixed with water proofing compound as per manufacture's specification etc. all complete as directed by Engineer In-Charge. | 50.00 | 754.95 | Sqm | 37,747.50 |
| 7.15 | Providing and applying 12 mm thick (average) premixed formulated one coat gypsum lightweight plaster having additives and light weight aggregates as vermiculite/ perlite respectively conforming to as per relevant IS code, applied on hacked / uneven background such as bare brick/ block/ RCC work on walls & ceiling at all floors and locations, finished in smooth line and level etc all complete as directed by Engineer In-charge. | 1,000.00 | 364.68 | Sqm | 3,64,680.00 |
| 7.16 | Drilling straight and inclined holes upto 300mm depth and upto 20mm dia in concrete / masonry using electrically operated drilling machine and fixing PVC nipple for grouting, conducting water test, etc. all complete as directed by Engineer In-Charge. | 500.00 | 34.00 | Nos | 17,000.00 |
| 7.17 | Grouting existing RCC structural members & tile work as per following operations, sealing leak paths with cement mortar & polymer, fixing of nipple, plugging the hole with neat cement paste by ram packing, cleaning etc all complete as directed by Engineer In-Charge. 1) Add Sunflex powder 1.00 kg in one bag of cement of 50 kg with adequate water. 2) Using mechanical means of pressure grouting with the above mix. The pressure shall be 5-10 psi. 3) The grouting to be done into the cracks of ceiling, walls, columns, & beam junctions wherever required. 4) After through grouting sealing the holes with cement slurry. | 1,000.00 | 34.00 | Kg | 34,000.00 |
| 7.18 | Epoxy grouting to in any RCC structure/masonry with low viscosity epoxy injection Monomor manufactured by M/s. CICO, SIKKA, MC Bouchmey, Sunanda Chemicals, Roffee, EPCO-KP/HP-250 etc. including resin and hardner epoxy based product of similar properties, as per manufacture's specification by providing suitable arrangement for grouting at pressure 2 to 3 kg / sqm including seal paths with lead wool, removing nipple, plugging the holes with neat cement paste by ram packing, cleaning for all lift and leads. The grouting is to be done after cement grouting is completed etc. all complete as directed by Engineer In-Charge. | 500.00 | 980.00 | Kg | 4,90,000.00 |
| 7.19 | Hacking of CC flooring including removing loose and uneven surface/layer, cleaning for surface including stacking the debris at a suitable location to take away out of IIT campus etc all complete as directed by Engineer In-Charge. | 1,000.00 | 18.00 | Sqm | 18,000.00 |
| 7.20 | Providing temporary steel supports such as tubular steel props 50mm dia, as required for supporting system till the repaired work of the beam, column, slab, chajja, etc. work completed in all respects as directed and when required in any floor of any height inside and outside of the building and removing the supporting system as directed without damaging the structure etc. all complete as directed by Engineer In-Charge. | 100.00 | 91.00 | Nos | 9,100.00 |

| | | | | | |
|----------|--|-----------|-------------|----------------|-----------------------|
| 7.21 | Providing and fixing double scaffolding system on the exterior/interior side at any height made up with 40mm dia M.S. tube 1.5m or 2m centre to centre, horizontal & vertical tubes joining with cup & lock system with M.S. tubes, M.S. tube chollies, M.S. clamps and M.S. staircase system in the scaffolding for working platform etc. and maintaining it in a serviceable condition for the required duration i.e., till completion of the work as approved and removing it there after. The scaffolding system shall be stiffened with bracings, runners, connection with the building etc wherever required for inspection of work at required locations with essential safety features for the workmen etc. complete as per directions and approval of Engineer-in-charge. The elevational area of the scaffolding shall be measured for payment purpose. The payment will be made once irrespective of duration of scaffolding (till the completion of the work). | 10,000.00 | 285.96 | Sqm | 28,59,600.00 |
| 7.22 | Providing and erecting at site steel tubular H – frame double scaffolding with bracings to all heights as directed by engineer in charge before commencement of work and removing the same after completion of all external work requiring double scaffolding etc all complete as directed by Engineer In-Charge. The elevational area of the scaffolding shall be measured for payment purpose. The payment will be made once irrespective of duration of scaffolding (till the completion of the work). | 10,000.00 | 144.00 | Sqm | 14,40,000.00 |
| 7.23 | Providing and erecting single scaffolding for painting, water supply and sanitary pipe line repair works using bamboo male of 1” to 1-1/2 dia. Vertical and Horizontal at 1.20mtr. And necessary cross bamboos and short bamboos for supports from bldg. By taking necessary holes in wall and remaking good the damages after completion of work,including coir and all necessary material including conveying loading,unloading including removing the same after completion of work by taking necessary precautions and measures of labour etc. all complete as directed by Engineer In-charge. | 2,000.00 | 40.00 | Sqm | 80,000.00 |
| 7.24 | Providing and erecting double scaffolding for painting, water supply and sanitary pipe line repair works using bamboo male of 1” to 1-1/2 dia. Vertical and Horizontal at 1.20mtr. And necessary cross bamboos and short bamboos for supports from bldg. By taking necessary holes in wall and remaking good the damages after completion of work,including coir and all necessary material including conveying loading,unloading including removing the same after completion of work by taking necessary precautions and measures of labour etc. all complete as directed by Engineer In-charge. | 2,000.00 | 77.00 | Sqm | 1,54,000.00 |
| 7.25 | Providing and fixing Jute Kantan (Tarat) screen over the scaffolding of external/ internal surface as directed including removing the same after the work is over & taking away out of IIT campus etc. all complete as directed by Engineer In-Charge. | 5,000.00 | 12.00 | Sqm | 60,000.00 |
| 7.26 | Providing and erecting arrester/safety net in double layer mesh having first layer 4mm PP rope in 100mmx100mm and second layer with blue fish net with 18mm mesh supported by border rope and tie cord 12mm PP at terrace floor level (6 th floor level) to prevent the debris from falling on ground during progress of work and keeping the same during the entire period etc. all complete as directed by Engineer In-Charge. | 100.00 | 77.00 | Sqm | 7,700.00 |
| 7.27 | Providing and fixing approved quality G.I chicken mesh with nails at junction of R.C.C. and masonry walls before plastering including necessary tools & plants etc. All complete as directed by Engineer In-Charge. | 500.00 | 31.00 | Sqm | 15,500.00 |
| | | | | Total 7 | 2,92,39,957.50 |
| 8 | Wood works | | | | |
| 8.01 | Providing and fixing 2 nd class locally available teakwood for frame of doors/ windows/ ventilators by using wood of required size as per site requirements including all moulding, rebating, hold fast and finishing with one coat of primer, applying coal tar on the external faces of frame including stepladder/working platform etc. all complete as directed by Engineer In-Charge. | 1.00 | 1,55,425.00 | Cum | 1,55,425.00 |
| 8.02 | Providing and fixing single or double leaf panelled door shutters 35mm thick as per detailed drawings consisting of country cut teak wood styles, top rail, frieze rail of 95mm x 35mm, lock rail of 145mm x 35mm and bottom rail of 245mm x 35mm and insert panels of 12mm thick, marine plywood generally conforming to as per relevant IS code with heavy duty CP brass butt hinges bright finished of required size with necessary screws, P/F 300mm long heavy duty stainless steel aldrop, other required fittings and fixtures etc. all complete as directed by Engineer-In-Charge. (fittings will be approved by Engineer in charge before fixing) | 30.00 | 5,392.00 | Sqm | 1,61,760.00 |

| | | | | | |
|------|--|--------|----------|-----|--------------|
| 8.03 | Providing and fixing solid core flush door in single or double leaf 32mm thick of commercial type of exterior grade, approved commercial plywood facing both side without glazing and venetians, all necessary beads, moulding and lipping, 300mm long 2 nos. decorative type S.S handles for each shutters, 8" long stainless steel tower bolt 1 no for each shutter, 6 lever Godrej mortise lock with triplicate keys and other required fittings etc. all complete as directed by Engineer-In-Charge. (without frame). (fittings will be approved by Engineer in charge before fixing) | 30.00 | 5,571.00 | Sqm | 1,67,130.00 |
| 8.04 | Providing and fixing solid core flush door in single or double leaf 32mm thick of commercial type of exterior grade, approved commercial plywood facing both side without glazing and venetians, all necessary beads, moulding and lipping, 300mm long 2 nos. decorative type S.S handles for each shutters, 8" long stainless steel tower bolt 1 no for each shutter, 12" long stainless steel heavy duty aldrop and other required fittings etc. all complete as directed by Engineer-In-Charge. (without frame). (fittings will be approved by Engineer in charge before fixing) | 50.00 | 5,379.00 | Sqm | 2,68,950.00 |
| 8.05 | Providing and fixing 35 mm thick Advance/Rawji/approved make Fiberglass Reinforced Plastic (F.R.P.) door shutter in flush or depress design as approved colour shade and wood finish made with fire retardant grade unsaturated polyester resin, moulded to 3 mm thick FRP laminate all around, with suitable wooden blocks inside at required places for fixing of fittings like 100mm SS hinges 3 nos, 200mm SS tadi patti with packing 2no, 150mm SS handles 2 nos on each shutters and polyurethane foam (PUF)/ Polystyrene foam to be used as filler material throughout the hollow panel, casted monolithically etc. all complete as directed by Engineer-In-Charge. | 300.00 | 4,581.00 | Sqm | 13,74,300.00 |
| 8.06 | Providing and fixing 30 mm thick Advance/Rawji/approved make Fiberglass Reinforced Plastic (F.R.P.) door shutter in flush or depress design as approved colour shade and wood finish made with fire retardant grade unsaturated polyester resin, moulded to 3 mm thick FRP laminate all around, with suitable wooden blocks inside at required places for fixing of fittings like 100mm SS hinges 3 nos, 200mm SS tadi patti with packing 2no, 150mm SS handles 2 nos on each shutters and polyurethane foam (PUF)/ Polystyrene foam to be used as filler material throughout the hollow panel, casted monolithically etc. all complete as directed by Engineer-In-Charge. | 300.00 | 4,129.00 | Sqm | 12,38,700.00 |
| 8.07 | Refixing aluminium/ wooden framed door and windows, grill, by making small modification with new screws and required fittings etc. all complete as directed by Engineer-In-Charge. | 200.00 | 1,558.00 | Nos | 3,11,600.00 |
| 8.08 | Providing and fixing 6mm thick commercial plywoods for table top, panelling, shutters, partition and any other work with necessary fittings and fixtures etc. all complete as directed by Engineer-In-Charge. | 100.00 | 341.00 | Sqm | 34,100.00 |
| 8.09 | Providing and fixing 8mm thick commercial plywoods for table top, panelling, shutters, partition and any other work with necessary fittings and fixtures etc. all complete as directed by Engineer-In-Charge. | 100.00 | 440.00 | Sqm | 44,000.00 |
| 8.10 | Providing and fixing 12mm thick commercial plywoods for table top, panelling, shutters, partition and any other work with necessary fittings and fixtures etc. all complete as directed by Engineer-In-Charge. | 500.00 | 626.00 | Sqm | 3,13,000.00 |
| 8.11 | Providing and fixing 18mm thick commercial plywoods for table top, panelling, shutters, partition and any other work with necessary fittings and fixtures etc. all complete as directed by Engineer-In-Charge. | 500.00 | 873.00 | Sqm | 4,36,500.00 |
| 8.12 | Providing and fixing 9mm thick marine plywoods for table top, panelling, shutters, partition and any other work with necessary fittings and fixtures etc. all complete as directed by Engineer-In-Charge. | 50.00 | 950.00 | Sqm | 47,500.00 |
| 8.13 | Providing and fixing 12mm thick marine plywoods for table top, panelling, shutters, partition and any other work with necessary fittings and fixtures etc. all complete as directed by Engineer-In-Charge. | 50.00 | 943.00 | Sqm | 47,150.00 |
| 8.14 | Providing and fixing 18mm thick marine plywoods for table top, panelling, shutters, partition and any other work with necessary fittings and fixtures etc. all complete as directed by Engineer-In-Charge. | 50.00 | 1,306.00 | Sqm | 65,300.00 |
| 8.15 | Providing and fixing 12mm thick cement bonded wood particle board (bison panel) for chajja, ceiling, staircase at any floor, providing suitable hole for fixing nuts and bolts including making suitable groove on walls, making vata at joint, P/F sheet in proper slope including working platform wherever required etc. all complete as directed by Engineer-In-Charge. | 100.00 | 1,217.00 | Sqm | 1,21,700.00 |

| | | | | | |
|------|--|--------|----------|-----|-------------|
| 8.16 | Providing and fixing 20mm thick cement bonded wood particle board (bison panel) for chajja, ceiling, staircase at any floor, providing suitable hole for fixing nuts and bolts including making suitable groove on walls, making vata at joint, P/F sheet in proper slope including working platform wherever required etc. all complete as directed by Engineer-In-Charge. | 100.00 | 1,504.00 | Sqm | 1,50,400.00 |
| 8.17 | Providing and fixing 2 nd class teak wood moulded beading of size 50x12mm or nearly available to door and window frames with iron screws, plugs and priming coat on unexposed surface etc. all complete as directed by Engineer-In-Charge. | 200.00 | 192.20 | Rmt | 38,440.00 |
| 8.18 | Providing and fixing 2 nd class teak wood moulded beading of size 50x20mm or nearly available to door and window frames with iron screws, plugs and priming coat on unexposed surface etc. all complete as directed by Engineer-In-Charge. | 200.00 | 240.01 | Rmt | 48,002.00 |
| 8.19 | Providing and fixing openable shutter made up of 18mm thick commercial plywood of approved make, P/F 1mm thick designer sunmica on expose side and edges of shutters and frame, P/F 0.80mm thick white sunmica on unexposed side and frame, P/F stainless steel hinges 2 nos. for each shutter, 1no handle(S.S) for each shutter, ball cage etc. with screws in line and level, fixing on wooden frame of required size for frame rectification of all damages etc. all complete as directed by Engineer-In-Charge. | 50.00 | 4,340.00 | Sqm | 2,17,000.00 |
| 8.20 | Providing & fixing in position plywood panelling made using 2" x 1.5" or nearly available teakwood frame at 600mm c/c as frame with 12mm thick commercial plywood, finish with 1mm thick designer or solid colour laminate of century, green lam, royal touch, marino brand with approved pattern and colour, making necessary grooves wherever required as per standard practice, making necessary arrangement for removable type panels for electrical work using mirror screws,, making edges smooth with all required fittings and fixtures etc. all complete as directed by Engineer-In-Charge. | 20.00 | 5,240.00 | Sqm | 1,04,800.00 |
| 8.21 | Providing and fixing pin up board on walls using 8mm thick plywood for backside support, P/F 12mm thick soft board on plywood with fabric of approved pattern and design with all required fittings and fixtures and necessary hardware etc. all complete as directed by Engineer-In-Charge. The basic cost of fabric to be Rs. 350/- per RM (3 feet width). | 20.00 | 4,995.00 | Sqm | 99,900.00 |
| 8.22 | Providing and fixing 2 nd class teak wood lipping/ moulded beading or taj beading of required size fixed with wooden adhesive of approved quality and screws/ nails on the edges, etc. all complete as directed by Engineer-In-Charge. | 100.00 | 85.89 | Rmt | 8,589.00 |
| 8.23 | Providing & fixing 1mm thick designer laminate of approved brand and pattern wherever required including, making necessary grooves wherever required as per standard practice with all required fittings and fixtures etc. all complete as directed by Engineer-In-Charge. | 200.00 | 950.00 | Sqm | 1,90,000.00 |
| 8.24 | Providing & fixing 0.8mm thick white laminate of approved brand and pattern on partition/ door shutter/ door frame/ over window including, making necessary grooves wherever required as per standard practice with all required fittings and fixtures etc. complete as directed by Engineer-In-Charge. | 200.00 | 752.00 | Sqm | 1,50,400.00 |
| 8.25 | Providing & fixing 4mm teak veneer of approved brand and pattern on partition/ door shutter/ door frame/ over window including, making necessary grooves wherever required as per standard practice with all required fittings and fixtures etc. all complete as directed by Engineer-In-Charge. | 50.00 | 1,778.00 | Sqm | 88,900.00 |
| 8.26 | Providing and laying 5mm thick acrylic sheet of 450mm width of approved company for damp proof course in the bottom of brick masonry/concrete wall by cutting, making slit in it at floor level by 100 mm overlapping end to end including plastering, filling the gaps by mortar and making good surface etc. all complete as directed by Engineer In-Charge. | 50.00 | 1,184.00 | Sqm | 59,200.00 |
| 8.27 | Carefully removing existing wooden doors of any size and type with/without frame without damaging and re-fixing the same after completion of repair works and required modification like cutting from bottom, fixing beading patti, etc. with required necessary fixtures and fittings including screws/hinges, etc. all complete as directed by Engineer-In-Charge. (10% amount of this item will be deducted for scrap value of material) | 100.00 | 611.00 | Nos | 61,100.00 |

| | | | | | |
|------|--|--------|-------------|-----|-------------|
| 8.28 | Removing door / windows / cupboard shutter & frame removing shutters & old fittings keeping them aside and taking out the old dilapidated frame out of campus, providing wroughting to shape & fixing C. P. Teakwood frame of same size & design as existing finished size (95mm x 70mm, 70mm x 32mm) applying one coat of coal tar to the backside of members fixing new M.S. Hold fasts 4 Nos. for windows and 6 Nos. for doors with screws fixing the frame in proper position on the wall refixing the removed shutters (if found in good condition) with all existing fittings for doors & windows or of same size & number as existing fittings including painting two coats of synthetic enamel paint over a coat of primer on all exposed surfaces of frame rectifying all defects to original specification etc. all complete as directed by Engineer-In-Charge. (10% amount of this item will be deducted for scrap value of material) | 1.00 | 1,63,576.00 | Cum | 1,63,576.00 |
| 8.29 | Providing and fixing country teakwood 2nd class fully glazed single / double leaf windows / ventilators rectangular in shape adopting section of 70mm x 32mm for styles and rails as per drawing / as per existing pattern including providing and fixing 4mm thick plain / bajiri glass with teakwood beading, fixing the window / ventilator shutters with 75mm size butt hinges (Brass oxidized) 2 Nos. for each shutter, aluminium towerbolt 100mm size one for each shutter, aluminium handle 125mm one for each shutter, hooks & eyes 200mm one for each shutter, applying two coats of synthetic enamel paint of approved brand and shade over a coat of wood primer etc. all complete as directed by Engineer-In-Charge. | 20.00 | 8,983.00 | Sqm | 1,79,660.00 |
| 8.30 | Providing and fixing glazing in aluminium door, window, ventilator shutters and partitions etc. with float glass panes of 5 mm thickness including EPDM rubber / neoprene/beading patti gasket etc. complete as per the architectural drawings and the directions of Engineer-in-charge . | 300.00 | 1,330.05 | Sqm | 3,99,015.00 |
| 8.31 | Providing & fixing in position overhead storage cabinet having depth 1'-6" made out of using 18mm thick commercial plywood for sides, top, bottom, shelf & 12mm thick ply for back sides, 1mm thick decorative sunmica for outside and 1mm thick white sunmaica for inside surfaces , CP teakwood frame work/support fixing the unit on wall, 01 nos handle for each shutter, magnet, lock, polish with including necessary edging, moulding, buffing, autohinges, & other hardware required fitting etc. all complete as directed by Engineer-In-Charge. | 20.00 | 12,202.00 | Sqm | 2,44,040.00 |
| 8.32 | Providing and fixing plywood partition in existing almirahs with 18mm thick commercial ply conforming to relevant IS code BWR type plain lining including fixing beading patti of minimum size (1"x0.5") on front side with necessary screws/nuts & bolts/ nails with one coat primer & two coat SEP on two faces fixed on wooden support of second class teak wood for full width of minimum size (1"x 1.50") etc all complete as directed by Engineer-In-Charge. | 30.00 | 2,990.00 | Sqm | 89,700.00 |
| 8.33 | Providing and fixing accoustic board 25mm thick of armstrong, Anutone make/approved make in required colour, pattern, size and shape on existing plywood using clips, pasting the board on plywood using suitable pasting gel, necessary cutting, fitting etc all complete as directed by Engineer-In-Charge.. (excluding plywood) | 20.00 | 9,517.00 | Sqm | 1,90,340.00 |
| 8.34 | Providing & fixing 5mm thick plain glass for vision panel in door including making necessary cutting in the door of required size with necessary teakwood moulding and melamine polish on moulding etc all complete as directed by Engineer-In-Charge. | 50.00 | 2,023.00 | Sqm | 1,01,150.00 |
| 8.35 | Providing & fixing 25mm thick teak wood wooden flooring including cleaning, proper alignment etc all complete as directed by Engineer In-charge. | 20.00 | 4,479.00 | Sqm | 89,580.00 |
| 8.36 | Providing and fixing wooden waterproof flooring of 9 mm / 10 mm thk of approved make in slat form including 2mm foam for levelling etc all complete as directed by Engineer In-charge. | 20.00 | 3,942.00 | Sqm | 78,840.00 |
| 8.37 | Providing and fixing capsule door closer of approved quality and make to door shutter including making proper adjustment for smooth operation etc all complete as directed by Engineer In-charge. | 50.00 | 666.00 | Nos | 33,300.00 |
| 8.38 | Providing and fixing Godrej make concealed type door closer of approved quality and make to door shutter including making proper adjustment for smooth operation etc. all complete as directed by Engineer In-charge. | 10.00 | 5,865.00 | Nos | 58,650.00 |
| 8.39 | Providing and fixing 3" Anchor Fastener wherever necessary etc. all complete as directed by Engineer In-charge. | 50.00 | 41.00 | Nos | 2,050.00 |
| 8.40 | Providing and fixing heavy duty anchor fastners of size 6" & 12mm dia including drilling hole as per manufacturer specifications, blowing out the hole and finishing including working platform etc. all complete as directed by Engineer In-charge. | 50.00 | 143.00 | Nos | 7,150.00 |

| | | | | | |
|----------|--|--------|-----------|----------------|---------------------|
| 8.41 | Providing and fixing glazing in aluminium door, window, ventilator shutters and partitions etc. with float glass panes of 5 mm thickness including EPDM rubber / neoprene gasket etc. complete as per the architectural drawings and the directions of Engineer-In-charge . | 30.00 | 1,330.05 | Sqm | 39,901.50 |
| 8.42 | Providing and fixing glazing in aluminium door, window, ventilator shutters and partitions etc. with float glass panes of 8 mm thickness including EPDM rubber / neoprene gasket etc. complete as per the architectural drawings and the directions of Engineer-In-charge . | 20.00 | 1,501.23 | Sqm | 30,024.60 |
| 8.43 | Providing and fixing PVC gasket/ rubber lining with necessary fittings and fixtures etc. all complete as directed by Engineer In-charge. | 200.00 | 79.00 | Rmt | 15,800.00 |
| 8.44 | Providing and fixing fly proof stainless steel mesh of approved quality to windows, grills, doors and any other location using teak wood or aluminium anodised section of require size with necessary fittings and fixtures etc. all complete as directed by Engineer In-charge. | 500.00 | 1,409.01 | Sqm | 7,04,505.00 |
| 8.45 | Providing and fixing 300mm long heavy duty brass oxidized aldrop with required fittings and fixtures etc. all complete as directed by Engineer In-charge. | 50.00 | 727.00 | Nos | 36,350.00 |
| 8.46 | Providing and fixing 300mm long stainless steel heavy duty aldrop with required fittings and fixtures etc. all complete as directed by Engineer In-charge. | 50.00 | 635.00 | Nos | 31,750.00 |
| 8.47 | Providing and fixing 300mm long stainless steel handles to door of approved quality and design with necessary fittings and fixtures etc. all complete as directed by Engineer In-charge. | 50.00 | 626.00 | Set | 31,300.00 |
| 8.48 | Providing and fixing 450mm long stainless steel handles to door of approved quality and design with necessary fittings and fixtures etc. all complete as directed by Engineer In-charge. | 50.00 | 741.00 | Set | 37,050.00 |
| 8.49 | Providing and fixing mirrors 6mm thick of approved Indian quality copper plated with 4-6mm thick bakelite sheet as backing, fixing mirror on wall with aluminum F Channel with necessary rubber gasket and screws etc. including removing the existing damaged mirrors and taking away for disposing it out of IIT Campus etc all complete as directed by Engineer In-Charge.(Make – Saint Gobain / Modiguard) (Note: All aluminium sections should be 15 micron anodized/ powder coated). | 200.00 | 2,701.28 | Sqm | 5,40,256.00 |
| 8.50 | Providing and fixing (600X450mm) mirrors 6mm thick of approved Indian quality copper plated with 4mm thick bakelite/hardner sheet, fixing mirror on wall with S.S. mirror studs for all corners, screws etc. all complete as directed by Engineer In-Charge. (Make:Modiguard/Saint-Gobain) | 100.00 | 1,249.00 | Nos | 1,24,900.00 |
| 8.51 | Providing and fixing (900X600mm) mirrors 6mm thick of approved Indian quality copper plated with 4mm thick bakelite/hardner sheet,, fixing mirror on wall with S.S. mirror studs for all corners, screws etc. all complete as directed by Engineer In-Charge. (Make:Modiguard/Saint-Gobain) | 100.00 | 1,970.00 | Nos | 1,97,000.00 |
| 8.52 | Providing and fixing (1500X450mm) mirrors 6mm thick of approved Indian quality copper plated with 4mm thick bakelite/hardner sheet , fixing mirror on wall with S.S. mirror studs for all corners, screws etc. all complete as directed by Engineer In-Charge. (Make:Modiguard/Saint-Gobain) | 50.00 | 2,066.00 | Nos | 1,03,300.00 |
| 8.53 | Extra over for making glass toughened of any thickness including transport etc. all complete as directed by Engineer In-charge. | 20.00 | 1,399.00 | Sqm | 27,980.00 |
| 8.54 | Extra over for edge polishing to glass of any thickness including transport etc. all complete as directed by Engineer In-charge. | 10.00 | 182.00 | Rmt | 1,820.00 |
| 8.55 | Providing & fixing in position wall unit, overhead storage, made out of using 18mm thick waterproof plywood sides & shutters,6mm thick waterproof plywood backing, 1 mm thick sunmica for all exposed surfaces , CP teakwood frame work / supports fixing the unit on wall , handles with providing & fixing glass shelf of 12mm thick 1 no at 45 cm including necessary edging, moulding , buffing etc. & locking arrangement , hinges & other hardware & required fitting etc. all complete as directed by Engineer In-charge. | 20.00 | 15,806.00 | Sqm | 3,16,120.00 |
| | | | | Total 8 | 98,78,954.10 |
| 9 | Steel Work | | | | |

| | | | | | |
|------|---|-----------|----------|-----|--------------|
| 9.01 | Providing and fabricating structural steel works in rolled sections like joists, channels, angles, tees, hollow sections and any other required sections etc. as per detailed designs & drawings for supports, rafters, purlins, railing, staircase and any other work including fixing in position with connecting plates, braces and welding, riveting, bolting as necessary including one coat of redoxide priming coat, working platform etc. all complete as directed by Engineer-In-Charge. | 20,000.00 | 93.37 | Kg | 18,67,400.00 |
| 9.02 | Providing, fabricating and fixing Chequered Plate of required thickness for steps and any other work including in required size, welding, fixing necessary supporting M.S frame work with the plate including one coat of steel primer and two coat of SEP etc. all complete as directed by Engineer-In-Charge. (M.S work will be paid separately) | 1,000.00 | 102.60 | Kg | 1,02,600.00 |
| 9.03 | Providing fabricating and fixing Steel work in built up tubular (round, square or rectangular hollow tubes, trusses etc.) in hot finished welded type tubes, including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer, including welding and bolted with special shaped washers etc. all complete as directed by Engineer-In-Charge. | 1,000.00 | 155.43 | Kg | 1,55,430.00 |
| 9.04 | Steel work in built up tubular (round, square or rectangular hollow tubes, trusses etc.) in hot finished seamless type tubes, including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer, including welding and bolted with special shaped washers etc. all complete as directed by Engineer-In-Charge. | 1,000.00 | 169.52 | Kg | 1,69,520.00 |
| 9.05 | Providing and fixing stainless steel (Grade 304) railing/door/gate made of Hollow tubes, channels, plates etc., including welding, grinding, buffing, polishing and making curvature (wherever required) and fitting the same with necessary stainless steel nuts and bolts complete, i/c fixing the railing with necessary accessories & stainless steel dash fasteners, stainless steel bolts etc., of required size, on the top of the floor or the side of waist slab with suitable arrangement etc. all complete as directed by Engineer-In-Charge. (for payment purpose only weight of stainless steel members shall be considered excluding fixing accessories such as nuts, bolts, fasteners etc.). | 500.00 | 614.33 | Kg | 3,07,165.00 |
| 9.06 | Fabricating and fixing structural steel works supplied by Institute in rolled sections like joists, channels, angles, tees, hollow sections and any other required sections etc. as per detailed designs & drawings for supports, rafters, purlins, railing and any other work including fixing in position with connecting plates, braces and welding, riveting, bolting as necessary including painting with one coat of red oxide/steel primer and two coats synthetic enamel paint, working platform etc. all complete as directed by Engineer-In-Charge. | 1,000.00 | 29.00 | Kg | 29,000.00 |
| 9.07 | Providing and fixing hand rail of using 'C' class G.I pipe approved size by welding etc. to steel ladder railing, balcony railing, staircase railing and similar works, including applying priming coat of approved steel primer and two coat of synthetic enamel paint, working platform wherever required etc. all complete as directed by Engineer-In-Charge. | 500.00 | 180.81 | Kg | 90,405.00 |
| 9.08 | Providing and fixing mild steel grill work of required pattern for windows, open area, etc. With M.S angles, flats, square or round bars and doors in M.S. grill weighing 15 kg per sqm as per drawing including fixtures, necessary welding and painting with one coat of anti-corrosive paint and two coats of synthetic enamel paint and working platform wherever required, etc. all complete as directed by Engineer-In-Charge. | 300.00 | 1,519.00 | Sqm | 4,55,700.00 |
| 9.09 | Add for extra weight or deduct for less weight over item no.9.08 for fabricating such as cutting, shaping, riveting etc. mild steel for grill works including welding and painting with one coat of primer and two coats of synthetic enamel paint of approved shade etc. all complete as directed by Engineer-In-Charge. | 1,000.00 | 100.00 | Kg | 1,00,000.00 |
| 9.10 | Providing and fixing mild steel grill work of required pattern for windows, open area, etc. With M.S angles, flats, square or round bars and doors in M.S. grill including fixtures, necessary welding and painting with one coat of anti-corrosive paint and two coats of synthetic enamel paint and working platform wherever required, etc. all complete as directed by Engineer-In-Charge. | 2,000.00 | 198.37 | Kg | 3,96,740.00 |
| 9.11 | Providing and fixing in position collapsible steel shutters with vertical channels 20 x 10 x 2mm and braced with flat iron diagonals 20 x 5mm size with Top bottom rail of T-iron 40 x 40 x 6mm with 40mm dia. Steel pulleys complete with bolts, nuts, locking arrangement, stoppers, handles including applying priming coat of approved steel primer including removing the existing damaged collapsible gate and taking it away out of IIT campus etc. all complete as directed by Engineer-In-Charge. (15% amount of this item will be deducted for scrap value of material) | 10.00 | 9,429.23 | Sqm | 94,292.30 |

| | | | | | |
|------|---|--------|----------|-----|-------------|
| 9.12 | Providing and fixing rolling steel shutter fabricated from 18/19 gauge steel laths with side guides, bottom rail, brackets, door suspension shaft including rolling springs, locking arrangement and housing box at the top with one coat of red lead primer, working platform, etc. all complete as directed by Engineer-In-Charge. | 30.00 | 5,674.00 | Sqm | 1,70,220.00 |
| 9.13 | Providing and fixing worm gear system to the rolling shutter with all necessary fitting and fixtures as per standard specification etc. all complete as directed by Engineer-In-Charge. | 5.00 | 7,170.00 | Nos | 35,850.00 |
| 9.14 | Providing and fixing 50mm x 50mm x 8 gauge crimped mesh by cutting, welding etc with applying one coat of primer and two coats of synthetic enamel paint, working platform etc. all complete as directed by Engineer-In-Charge. | 200.00 | 754.00 | Sqm | 1,50,800.00 |
| 9.15 | Providing and fixing weld mesh of 25mm x 25mm (10 guage) to structural steel frame work as per existing pattern of detailed drawing or as directed one coat of primer and two coat synthetic enamel paint, working platform etc. all complete as directed by Engineer-In-Charge. | 200.00 | 703.00 | Sqm | 1,40,600.00 |
| 9.16 | Providing and fixing G.I. Welded mesh 12mm x 12mm and (18 gauge) to teakwood frame work including fixing weld mesh with 37mm x 12mm teakwood bedding patti and necessary pocketing for opening for shutters with necessary screws, fitting etc. all complete as directed by Engineer-In-Charge. | 300.00 | 738.00 | Sqm | 2,21,400.00 |
| 9.17 | Providing and fixing G. I. Chain links 50mm x 50mm and 8 gauge thick and of desired height, size to MS angle frame works including welding, nut bolts, providing and applying one coat of red oxide metal primer and two coats of synthetic enamel paint of approved brand & make etc. all complete as directed by Engineer-In-Charge. | 50.00 | 626.00 | Sqm | 31,300.00 |
| 9.18 | Providing and fixing concertina coil fencing with punched tape concertina coil 450 mm dia, having 50 nos rounds per 6 metre length, upto any height of wall / fence with existing angle iron 'Y' shaped and with 9 horizontal R.B.T. reinforced barbed wire, stud tied with G.I. staples and G.I. clips to retain horizontal, including necessary bolts or G.I. barbed wire tied to angle iron, welding all complete as directed by Engineer-in-charge, with reinforced barbed tape(R.B.T.) / Spring core (2.5mm thick) wire of high tensile strength of 165 kg/ sq.mm with tape (0.52 mm thick) and weight 43.478 gm/ metre (Payment for structural steel used in this item will be paid separately under structural steel item) | 200.00 | 436.00 | Rmt | 87,200.00 |
| 9.19 | Providing and fixing concertina coil fencing with punched tape concertina coil 600 mm dia, having 50 nos rounds per 6 metre length, upto any height of wall / fence with existing angle iron 'Y' shaped and with 9 horizontal R.B.T. reinforced barbed wire, stud tied with G.I. staples and G.I. clips to retain horizontal, including necessary bolts or G.I. barbed wire tied to angle iron,etc all complete as directed by Engineer In-Charge. with reinforced barbed tape(R.B.T.) / Spring core (2.5mm thick) wire of high tensile strength of 165 kg/ sq.mm with tape (0.52 mm thick) and weight 43.478 gm/ metre (Payment for structural steel used in this item will be paid separately) | 500.00 | 496.00 | Rmt | 2,48,000.00 |
| 9.20 | Providing and fixing concertina coil fencing with punched tape concertina coil 750 mm dia, having 50 nos rounds per 6 metre length, upto any height of wall / fence with existing iron angles, chain link fencing, stud tied with G.I. staples and G.I. clips to retain horizontal, including necessary bolts or G.I. barbed wire tied to angle iron and welding,etc all complete as directed by Engineer In-Charge with reinforced barbed tape(R.B.T.) / Spring core (2.5mm thick) wire of high tensile strength of 165 kg/ sq.mm with tape (0.52 mm thick) and weight 43.478 gm/ metre (Payment for structural steel used in this item will be paid separately under structural steel item) | 100.00 | 491.00 | Rmt | 49,100.00 |
| 9.21 | Providing and fixing barbed wire of 12 guage thick (2.64mm thick) over the fencing on structural steel supporting frame work as per site instructions / as directed by Engineer In-charge at site in proper position, fixing with M. S. Angle and flats as stated above, welding the angles, flats by welding/nut bolts clamps as necessary as per manufacturers specification including providing and fixing using staple clips, and strengthening bolt with necessary working platform and tools / plants etc. all complete as directed by Engineer In-charge.(Payment for structural steel used in this item will be paid separately) | 200.00 | 31.00 | Rmt | 6,200.00 |
| 9.22 | Providing and fixing G.I. Pipes of 50 mm internal diameter 'B' class (medium) (TATA / JINDAL / ZENITH/approved Make) having embossed at every metre as ISI mark and name of the manufacturer for gate frame work , fencing work etc. including elbows, tees ,welding of post caps and applying one coat of metal primer and two coats of synthetic enamel paint including necessary working platform etc. all complete as directed by Engineer-In-Charge. | 500.00 | 260.00 | Rmt | 1,30,000.00 |

| | | | | | |
|------|--|----------|----------|-----|-------------|
| 9.23 | Providing and fixing precoated galvanised iron profile sheets 0.80 mm (+ 0.05 %) total coated thickness with zinc coating 150grams per sqm as per relevant IS code, in 240 mpa steel grade, 5-7 microns epoxy primer on both side of the sheet and polyester top coat 15-18microns. Sheet should have protective guard film of 25 microns minimum to avoid scratches during transportation. The sheet shall be fixed using self drilling /self tapping screws of size (5.5x 55 mm) with EPDM seal, complete upto any pitch in horizontal excluding the cost of purlins, rafters and trusses and including cutting to size and shape wherever required etc. all complete as directed by Engineer-In-Charge. | 700.00 | 1,137.00 | Sqm | 7,95,900.00 |
| 9.24 | Carefully removing the existing damaged MS gates and refixing the same with proper alingment with fixing of new heavy duty ball bearing hinges and capsule hinges as per existing position including oiling, greesing and making gates are in workable conditions, etc all complete as directed by Engineer In-Charge. | 15.00 | 8,497.00 | Nos | 1,27,455.00 |
| 9.25 | Arranging welding maintenance works for old or new existing MS structure or gate or any other MS framework including necessary MS part or material not more than 2Kgs in weight, welding finishing, painting for welded part etc all complete as directed by Engineer In-Charge. | 15.00 | 1,303.00 | Job | 19,545.00 |
| 9.26 | Oiling, greasing rolling shutter and spring by opening the hood (house box) applying grease to spring, refixing the hood, applying greese to side guide channel, making pull type rolling shutter of any size with use of working platform/ step ladder etc all complete as directed by Engineer In-Charge. | 50.00 | 1,464.00 | Job | 73,200.00 |
| 9.27 | Removing & refixing existing window MS grills for modification by means of cutting, fabricating, welding etc and refixing it in position/line/level/plumb including necessary tools & plants, working platform, taking care of necessary safety precautions at site etc all complete as directed by Engineer In-Charge. | 200.00 | 433.00 | Sqm | 86,600.00 |
| 9.28 | Providing and fixing heavy duty ductile iron grating of size 300mmx600mm of NECO or approved make in proper line and level etc all complete as directed by Engineer In-Charge. | 30.00 | 6,371.00 | Nos | 1,91,130.00 |
| 9.29 | Providing and fixing heavy duty ductile iron grating of size 450mmx600mm of NECO or approved make in proper line and level etc all complete as directed by Engineer In-Charge. | 30.00 | 7,285.00 | Nos | 2,18,550.00 |
| 9.30 | Applying Hot-Dip Galvanized iron coating for structural steel/TMT bars as per standard specification with thickness not less than 120 microns including transportation, loading, unloading, etc all complete as directed by Engineer In-Charge. | 1,000.00 | 40.00 | kg | 40,000.00 |
| 9.31 | Providing & fixing anchor fastener of minimum 6 inch on a surface by drilling hole with connection plate with necessary tools and plants etc. all complete as directed by Engineer In-Charge. | 100.00 | 102.00 | Nos | 10,200.00 |
| 9.32 | Providing and fixing M.S. fan clamp of 16 mm dia M.S. bar, bent to shape with hooked ends in R.C.C. slabs or beams during laying, including painting the exposed portion of loop, all as per standard design etc. all complete as directed by Engineer In-Charge. | 100.00 | 186.58 | Nos | 18,658.00 |
| 9.33 | Designing, Providing, installing and fixing factory finished customized design pregalvanized high tensile steel joists, pipes, beam, channels, angles, flats, square bars, spikes etc as per site requirement including fixing in position with connecting plates, braces and welding, riveting, bolting as necessary including working platform etc. all complete as directed by Engineer In-charge. | 2,000.00 | 141.93 | Kg | 2,83,860.00 |
| 9.34 | Providing and fixing fire resistant door frame of section 143 x 57 mm/ as per existing pattern having built in rebate made out of 16 SWG G.I. sheet (zinc coating not less than 120 gm/sqm) duly filled with vermiculite based concrete mix, suitable for mounting 60 minutes fire rated door shutters. The frame is fitted with intumescent fire seal strip of size 10x4 mm (minimum) around the frame and fixing with dash fastener of approved size and make, including applying a coat of approved brand fire resistant primer etc. complete as per direction of Engineer-in-charge (Dash fastener to be paid for separately). | 50.00 | 1,467.71 | Rmt | 73,385.50 |

| | | | | | |
|-----------|---|----------|-----------|----------------|---------------------|
| 9.35 | Providing and fixing fire rated door having 2 hours of fire resistant of TATA Pravesh/Sukriti/Navair/Hormann/Bhawani/ approved make including G.I frame profile of (100 x 58mm)/(125mm x 55mm)/(125mmx75mm), thickness not less than 1.2mm and 0.80mm to 2mm thick extra stiffeners to support the accessories filled with rockwool of density not less than 120kg/m ³ with door shutter of 44mm to 46mm thick made of G.I sheet of 1.2mm thickness powder coated of Pure Polyester (PP) Coating, 60-90 microns (supplied by Jotun/Akzonobel) and filled with honeycomb (Cell size 21mm) including fixing the frame with anchor fastners (Hilti make) and including the following hardware like S.S ball bearing butt hinges 4" – 4nos, S.S 'D' Type Handle – 1 pair, Vision wired glass (1Hrs fire rated, schott Pryan make) of size 200mm x 300 mm- 1 No, Door closer- 1 no, Panic bar- 1 No and all necessary required fittings and fixtures etc all complete as directed by Engineer In-charge. Note :- 1.All hardware are of GEZE/DORMA/HAFELE make 2.Five years guarantee/warranty for defects/damage of fixtures & fittings for each door will be submitted on Rs. 100/- non-judicial stamp paper.) | 30.00 | 12,378.00 | Sqm | 3,71,340.00 |
| | | | | Total 9 | 73,48,745.80 |
| 10 | Flooring work | | | | |
| 10.01 | Providing and laying cement concrete flooring 1:2:4, 40mm thick with 20mm nominal size stone aggregate finished with a floating coat of neat cement including cement slurry, curing etc. all complete as directed by Engineer In-charge. | 100.00 | 546.85 | Sqm | 54,685.00 |
| 10.02 | Providing and laying 52 mm thick cement concrete flooring with concrete hardener topping, under layer 40 mm thick cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) and top layer 12 mm thick cement hardener consisting of mix 1:2 (1 cement hardener mix : 2 graded stone aggregate 6 mm nominal size) by volume, hardening compound mixed @ 2 litre per 50 kg of cement or as per manufacturer's specifications etc. all complete as directed by Engineer In-charge. | 100.00 | 858.80 | Sqm | 85,880.00 |
| 10.03 | Providing and fixing Chequerred precast Cement concrete tiles not less than 25mm thick of approved colour and pattern over steps vertically and horizontally including filling the joints with light shed pigment with white cement to match the shade of tiles including rubbing, curing and cleaning etc. complete on 20mm thick bed of cement mortar 1:4 (1 Cement : 4 coarse sand) etc. all complete as directed by Engineer In-charge. | 100.00 | 1,237.23 | Sqm | 1,23,723.00 |
| 10.04 | Providing and laying Kotah stone for flooring not less than 25mm thick of required size in plain / diamond pattern on a bed of 1:4 cement mortar (1 cement : 4 crush sand) or 20 mm thick plaster of cement mortar 1:3 (1 cement : 3 coarse sand) including cement float, filling joints with neat cement slurry, curing, polishing and cleaning etc. all complete as directed by Engineer In-charge. | 1,000.00 | 1,712.39 | Sqm | 17,12,390.00 |
| 10.05 | Providing and laying Kotah stone for skirting, tread, riser of steps not less than 25mm thick of required size in plain / diamond pattern on a bed of 1:4 cement mortar (1 cement : 4 crush sand) or 20 mm thick plaster of cement mortar 1:3 (1 cement : 3 coarse sand) including cement float, filling joints with neat cement slurry, curing, polishing and cleaning etc. all complete as directed by Engineer In-charge. | 1,000.00 | 2,045.47 | Sqm | 20,45,470.00 |
| 10.06 | Providing and fixing Ist quality ceramic wall tiles conforming to relevant IS code of size 300mmx450mm and 300mm x 600mm or as directed by Engineer-in-charge having thickness not less than 5mm, of approved make, in all colours, shades of any size in skirting, risers of steps, dados and floors over 12 mm thick bed of cement plaster /mortar 1:3 (1 cement : 3 coarse sand) and jointing with grey cement slurry @ 3.3kg per sqm, including pointing in white cement mixed with pigment of matching shade and cleaning etc. all complete as directed by Engineer In-charge. | 1,000.00 | 938.77 | Sqm | 9,38,770.00 |
| 10.07 | Providing and fixing Ist quality ceramic floor tiles conforming to relevant IS code of size 300mmx450mm and 300mm x 600mm or as directed by Engineer-in-charge having thickness not less than 5mm, of approved make, in all colours, shades of any size in skirting, risers of steps and floors over 12 mm thick bed of cement plaster /mortar 1:3 (1 cement : 3 coarse sand) and jointing with grey cement slurry @ 3.3kg per sqm, including pointing in white cement mixed with pigment of matching shade and cleaning etc. all complete as directed by Engineer In-charge. | 1,000.00 | 1,110.81 | Sqm | 11,10,810.00 |

| | | | | | |
|-------|--|----------|----------|-----|--------------|
| 10.08 | Providing and fixing Ist quality ceramic tiles of size 600mmx600mm or as directed by Engineer-in-charge having thickness not less than 5mm, of approved make, in all colours, shades of any size in skirting, risers of steps, dados and floors over 12 mm thick bed of cement plaster /mortar 1:3 (1 cement : 3 coarse sand) and jointing with grey cement slurry @ 3.3kg per sqm, including pointing in white cement mixed with pigment of matching shade and cleaning etc. all complete as directed by Engineer In-charge. | 200.00 | 930.00 | Sqm | 1,86,000.00 |
| 10.09 | Providing and laying non skid vitrified tiles of size 600mm x 600mm and above for flooring / skirting having thickness not less than 8mm of approved make, shade and pattern and having water absorption between 0.08% to 2.5% in required position laid on 20 mm thick Cement Mortar 1:4 (1 Cement : 4 Coarse sand), including neat cement float, filling joints with neat cement slurry mixed with approved shade of pigment to match the colour of tiles, curing and cleaning etc.all complete as directed by Engineer In-Charge. | 1,000.00 | 1,421.46 | Sqm | 14,21,460.00 |
| 10.10 | Providing and laying non skid vitrified tiles of size 1000mm x 1000mm for flooring / skirting having thickness not less than 8mm of approved make, shade and pattern and having water absorption between 0.08% to 2.5% in required position laid on 20 mm thick Cement Mortar 1:4 (1 Cement : 4 Coarse sand), including neat cement float, filling joints with neat cement slurry mixed with approved shade of pigment to match the colour of tiles, curing and cleaning etc.all complete as directed by Engineer In-Charge. | 50.00 | 2,560.61 | Sqm | 1,28,030.50 |
| 10.11 | Providing and laying not less than 16 mm thick Italian Marble stone slab machine cut, mirror polished Marble stone flooring, in required design (Simple geometrical, abstract etc.) and in patterns in combination with Italian marble stones of different colours, shades and finished surface texture etc., in linear portions of the building, all complete as per the architectural drawings, with 18 mm thick stone slab laid over 20 mm (average) thick base of cement mortar 1:4 (1 cement : 4 coarse sand) laid and jointed with white cement slurry @ 4.4 kg/sqm including pointing with white cement slurry admixed with pigment to match the marble shade including rubbing, curing and polishing etc. all complete as specified and as directed by the Engineer-in-Charge. | 20.00 | 6,116.18 | Sqm | 1,22,323.60 |
| 10.12 | Providing and laying tactile tile (for vision impaired persons as per standards) of size 300x300x9.8mm having water absorption less than 0.5% and conforming to as per relevant IS code, of approved make in allcolours and shades in outdoor floors such as footpath, court yard,multi modals location etc., laid on 20mm thick base of cement mortar 1:4 (1 cement : 4 coarse sand) in all shapes & patterns including grouting the joints with white cement mixed with matching pigments etc. complete as per direction of Engineer-in-Charge. | 20.00 | 1,724.83 | Sqm | 34,496.60 |
| 10.13 | Deduct for not using 20 mm thick cement mortar 1:4 (1 cement : 4 coarse sand) bedding in laying of floor tiles and jointing with grey cement slurry @ 3.3kg/sqm etc.all complete as directed by Engineer In-Charge. | 100.00 | 737.79 | Sqm | 73,779.00 |
| 10.14 | Fixing glazed/ Ceramic/ Vitrified floor tiles with cement based high polymer modified quick-set tile adhesive (Water based) in average 3mm thickness including filling joints with neat cement slurry mixed with approved shade of pigment to match the colour of tiles, curing and cleaning etc.all complete as directed by Engineer In-Charge. | 100.00 | 635.75 | Sqm | 63,575.00 |
| 10.15 | Providing and fixing 2 mm thick PVC flooring (vinyl flooring) in roll or tile form approved shade and in approved pattern laid over on smooth and leveled bed of cement concrete coated with a thin layer of hot bitumen @2.45Kg/sqm, fixing the flooring as per manufacturer specifications etc all complete as directed by Engineer In-Charge. | 100.00 | 1,610.00 | Sqm | 1,61,000.00 |
| 10.16 | Providing and fixing wooden flooring of 8 mm / 10 mm thk (AC-4 Grade) of approved make vista /armstrong/pergo in slat form including foam for levelling etc all complete as directed by Engineer In-Charge. (Measurment will include the skirting and side/ floor profiles if any) | 50.00 | 1,725.00 | Sqm | 86,250.00 |
| 10.17 | Providing and fixing Welspun CNL flooring including skirting/profile of approved design /make and pattern of upto 5.0 mm thk in grain slats or any other size or any other pattern, approved colour etc and cleaning /brooming/mopping the floor before installation and laying Cusioning base /Plastic sheet etc all complete as directed by Engineer In-Charge. | 50.00 | 3,875.00 | Sqm | 1,93,750.00 |

| | | | | | |
|-----------|---|----------|----------|-----------------|---------------------|
| 10.18 | Providing and applying machine polishing to cement / marble mosaic/kota tiled flooring or any other type of flooring upto the desired finish by using sufficient quantity of water during polishing to prevent scratches. After each coat of polish, the surface to be applied with cement slurry of matching shade and cured before next polish is taken up and applying wax polishing after final polish, including transporation, necessary tools and plants, etc all complete as directed by Engineer In-Charge. | 1,000.00 | 336.00 | Sqm | 3,36,000.00 |
| 10.19 | Extra for Mirror polishing on Kotah stone work where ever required to give high gloss finish etc all complete as directed by Engineer In-Charge. | 1,000.00 | 419.02 | Sqm | 4,19,020.00 |
| 10.20 | Hand polishing to dado, skirting including cleaning, washing etc all complete as directed by Engineer In-Charge. | 1,000.00 | 136.00 | Sqm | 1,36,000.00 |
| 10.21 | Providing and applying Epoxy flooring of Dr Cipy or approved make for total thickness not less than 2mm where surface prepared by grinding by mechanical means and should be free from dust, oil, grease prior to application of primer. Applying one coat of epoxy primer which is thoroughly mixed slowly using a slow speed drill and paddle for at least 4 minutes. Primer to be applied on the dry concrete surface @ 0.2 to 0.25Kg/per square meter by Brush/Roller. Applying epoxy material underlay screed of minimum 1mm thick coat i.e. base coat after drying of the Primer (usually after 6 - 8 hrs. from application of primer) of Dr. Cipy or approved make ;Spreading talc powder before applying top coat of average thickness of 1mm-2mm in glossy /Matt finish just after the drying of base coat (within at least 12 hrs or as per manufacturers specification) including applying industrial marking of upto 4 inch width. All the work should be executed as per approved design, finish, colour and all proportions as per manufacturers specification with required adhesive, etc. all complete as directed by Engineer In-Charge. | 100.00 | 2,633.00 | Sqm | 2,63,300.00 |
| 10.22 | Providing & laying Vitrified Tiles INFINITY serious Flooring with 1st quality homogeneous tiles of approved make & size on an average bedding of 25mm thick Cement Mortar 1:4 in desired slope / with tile drop as per the Design Drawings. Rate to include for laying tiles to the pattern as per the Design. Tiles to be laid with spacers in between and joints/grooves to be filled with grout of Weber or approved make of approved shade & color. Rate to include the cutting the tiles to size if there are any variations, cutouts for CP/Sanitary, Floor Drains etc all complete as directed by Engineer In-Charge. Basic Rate of the Tiles : Rs.88/Sqft Size : 1200mm x 600 mm MAKE Kajaria / Johnson/ Somany/ RAK/ Nitco | 100.00 | 2,197.00 | Sqm | 2,19,700.00 |
| | | | | Total 10 | 99,16,412.70 |
| 11 | Roofing work | | | | |
| 11.01 | Carefully refixing the old pre-coated galvanised iron profile/GI/FRP/Polycarbonate sheets as per availability and requirement in position with nut bolt arrangement, welding, riveting, bolting connecting plates, brasses, working platform upto required height, using self drilling /self tapping screws and sealing the joints properly with approved sealant materials including all leads and lifts etc. all complete as directed by Engineer In-Charge. | 100.00 | 289.00 | Sqm | 28,900.00 |
| 11.02 | Removing existing modular alto bond or other 600X600mm grid false ceiling sheets with false ceiling aluminium supports, stacking the material without getting damaged to desired location and re-fixing the false ceiling after completion of other renovations including all necessary supports, making necessary cutout for light and fixture, all labour, material, lifts and working platform/stepladder, covering the floor area, furniture with good quality sheets etc. all complete as directed by Engineer In-Charge. | 100.00 | 418.00 | Sqm | 41,800.00 |

| | | | | | |
|-------|---|--------|----------|-----|-------------|
| 11.03 | <p>Providing and fixing tiled G.I lay in perforated metal false ceiling of specified materials of size 595x595 mm in true horizontal level, suspended on inter locking metal grid of hot dipped galvanized steel sections consisting of main "T" runner with suitably spaced joints to get required length and of size 24x38 mm made from 0.30 mm thick (minimum) sheet, spaced at 1200 mm center to center and cross "T" of size 24x25 mm made of 0.30 mm thick (minimum) sheet, 1200 mm long spaced between main "T" at 600 mm center to center to form a grid of 1200x600 mm and secondary cross "T" of length 600 mm and size 24x25 mm made of 0.30 mm thick (minimum) sheet to be interlocked at middle of the 1200x600 mm panel to form grids of 600x600 mm and wall angle of size 24x24x0.3 mm and laying false ceiling tiles of approved texture in the grid including, required cutting/making, opening for services like diffusers, grills, light fittings, fixtures, smoke detectors etc. Main "T" runners to be suspended from ceiling using GI slotted cleats of size 27 x 37 x 25 x1.6 mm fixed to ceiling with 12.5 mm dia and 50 mm long dash fasteners, 4 mm GI adjustable rods with galvanised butterfly level clips of size 85 x 30 x 0.8 mm spaced at 1200 mm center to center along main T, bottom exposed width of 24 mm of all T-sections shall be pre-painted with polyester paint, all complete for all heights including working platform/stepladder wherever required as per specifications, drawings etc. all complete as directed by Engineer In-Charge.</p> | 200.00 | 1,597.10 | Sqm | 3,19,420.00 |
| 11.04 | <p>Providing & fixing 12.5mm thick gypsum board false ceiling of Gyproc/approved make at all height including providing & fixing of framework made of special section, power pressed from M.S. sheets and galvanised with zinc coating of 120 gms/ sqm (both side inclusive) as per relevant IS code and consisting of angle cleat of size 25mm wide x 1.6mm thick with flanges of 27mm and 37mm, at 1200mm c/c, one flange fixed to the ceiling with dash fastener 12.5mm dia x 50mm long with 6mm dia bolts, other flange of cleat fixed to the angle hangers of 25 x10 x0.50mm of required length with nuts & bolts of required size and other end of angle hanger fixed with intermediate G.I channels 45 x15 x 0.90mm running at the spacing of 1200 mm c/ c, to which the ceiling section 0.5mm thick bottom wedge of 80mm with tapered flanges of 26 mm each having lips of 10.5mm, at 450mm c/c, shall be fixed in a direction perpendicular to G.I intermediate channel with connecting clip made out of 2.64mm dia x 230mm long G.I wire at every junction, including fixing perimeter channels 0.50mm thick 27mm high having flanges of 20mm and 30mm long, the perimeter of ceiling fixed to wall/ partitions with the help of Rawl plugs at 450mm centre, with 25mm long dry wall screws @ 230mm interval, including fixing of gypsum Board to ceiling section and perimeter channels with the help of dry wall screws of size 3.5 x25mm at 230mm c/c, including jointing & finishing to a flush finish of tapered and square edges of the board with recommended jointing compounds, including jointing & finishing to a flush finish of tapered and square edges of the board with recommended jointing compounds, jointing tapes,finishing with jointing compounds in three layers covering up to 150mm on both sides of joints, all as per manufacture's specification and also including the cost of making opening for light fittings, grills, diffusers, cut outs made with frame of perimeter channels suitably fixed, covering the carpet, tables, chairs, machines,working platform/stepladder etc with plastic sheets all complete as per drawings, specification and direction of the Engineer in charge but excluding the cost of painting etc all complete as per drawings, specification and as directed by Engineer In-Charge.</p> | 200.00 | 1,149.84 | Sqm | 2,29,968.00 |
| 11.05 | <p>Providing & fixing 12mm thick Gypsum board on partition, false ceiling including, making necessary groves wherever required as per standard practice, The boards should be taped and filled from underside to give smooth, seamless surface with all required fittings and fixtures, working platform/stepladder etc all complete as directed by Engineer In-Charge.</p> | 50.00 | 1,121.00 | Sqm | 56,050.00 |
| 11.06 | <p>Providing and fixing modular false ceiling of 600mm x 600mm c/c and placing 3mm thick square aluminium composite sheet (alto bond sheet) to be fixed on frame work of aluminium section for suspended false ceiling consisting of aluminium T 1" x 1 ½"(25 x 40mm) weighing 0.259 Kg/m suspended on GI wire at 1200mm c/c, fixed on wall beams, slab including rounding the edge with aluminium T of 1"x 1 ½" (25mm x 40mm) weighing 0.259kg/m(all aluminium section shall be anodized 15micron or powder coated), making necessary cutout for light and fixtures including all labour, material, lifts and working platform/stepladder etc all complete as directed by Engineer In-Charge.</p> | 200.00 | 1,963.00 | Sqm | 3,92,600.00 |

| | | | | | |
|-------|---|--------|----------|-----|-------------|
| 11.07 | Providing & fixing of Dune microlook R.H 99% NRC ceiling system consisting of 600x600mm size grid with fleece laying in tiles of pre-coated galvanized steel in 0.4/0.5 mm thickness in required colour with 15mm wide T - section silhouettes of required colour having rotary stitching on the main Runner including P/F 1200mm & 600mm cross Tees as per manufacturer specifications and working platform/stepladder etc all complete as directed by Engineer In-Charge. | 100.00 | 1,469.00 | Sqm | 1,46,900.00 |
| 11.08 | Providing and fixing armstrong mineral fibre board 600mm x 600mm sheet in existing false ceiling frame by removing damaged sheet with required modification in frame as necessary, working platform/stepladder etc all complete as directed by Engineer In-Charge. | 50.00 | 325.00 | Nos | 16,250.00 |
| 11.09 | Providing and fixing trap door in existing false ceiling cutting and making 8mm Calcium silicate board trap door for service line using 15 mm GI pre-coated wall angle for framing and 8 mm calcium silicate board including all fixture with G.I support, working platform/stepladder, putty for filling gaps and joints etc. all complete as directed by Engineer In-charge. | 5.00 | 1,674.00 | Sqm | 8,370.00 |
| 11.10 | Providing & fixing 12mm thick calcium silicate board (make: Hilux / approved make) false ceiling in classrooms, labs at all floors, foyer area, washrooms etc including providing & fixing of framework made of special section, power pressed from M.S. sheets and galvanised with zinc coating of 120 gms/ sqm (both side inclusive) as per relevant IS code and consisting of angle cleat of size 25mm wide x 1.6mm thick with flanges of 27mm and 37mm, at 1200mm c/c, one flange fixed to the ceiling with dash fastener 12.5mm dia x 50mm long with 6mm dia bolts, other flange of cleat fixed to the angle hangers of 25 x10 x0.50mm of required length with nuts & bolts of required size and other end of angle hanger fixed with intermediate G.I channels 45 x15 x 0.90mm running at the spacing of 1200 mm c/ c, to which the ceiling section 0.5mm thick bottom wedge of 80mm with tapered flanges of 26 mm each having lips of 10.5mm, at 450mm c/c, shall be fixed in a direction perpendicular to G.I intermediate channel with connecting clip made out of 2.64mm dia x 230mm long G.I wire at every junction, including fixing perimeter channels 0.50mm thick 27mm high having flanges of 20mm and 30mm long, the perimeter of ceiling fixed to wall/ partitions with the help of Rawl plugs at 450mm centre, with 25mm long dry wall screws @ 230mm interval, including fixing of calcium silicate Board to ceiling section and perimeter channels with the help of dry wall screws of size 3.5 x25mm at 230mm c/c, including jointing & finishing to a flush finish of tapered and square edges of the board with recommended jointing compounds, jointing tapes, finishing with jointing compounds in three layers covering up to 150mm on both sides of joints, all as per manufacture's specification and also including the cost of making opening for light fittings, grills, diffusers, cut outs made with frame of perimeter channels suitably fixed, covering the carpet, tables, chairs, machines etc with plastic sheets, working platform all complete as per drawings, specification etc all complete as directed by Engineer In-Charge. | 50.00 | 1,771.00 | Sqm | 88,550.00 |
| 11.11 | Providing & fixing 6mm thick Shera board false ceiling in required colour pattern and texture screwed/fixed to the under structure of suspended G.I grid constructed and suspended from the main ceiling consisting of ceiling section of size 25 x 50 mm maximum c/c distance of 600 x 600mm perimeter channel and intermediate channel at maximum c/c to distance of 1200mm galvanised grid should be fixed to reinforced cement concrete slab. The shera board should be fixed to galvanised iron grid with necessary screws. The board should be taped and filled from underside to to give smooth, seamless ceiling. The rate should include necessary additional ceiling section and intermediate channels. Additional intermediate channels should be fixed to strap hangers for additional support to prevent strapping at every 1200mm item to be completed in all respect including necessary sleeves for ducts finishing of joints cut outs and including labour, material, lift and working platform/stepladder etc all complete as directed by Engineer In-Charge. | 50.00 | 4,060.00 | Sqm | 2,03,000.00 |
| 11.12 | Providing & Fixing Shera Board Sheets of 8mm thick on wall/ceiling using 50mm x 50mm Aluminum Hollow Pipe 16 gage including all fittings and fixtures, working platform/stepladder etc all complete as directed by Engineer In-Charge. | 50.00 | 3,357.00 | Sqm | 1,67,850.00 |

| | | | | | |
|-------|--|--------|----------|-----|-------------|
| 11.13 | Providing at all heights, levels and locations 0.71 mm thick aluminium sheet, the profile detail width 1044/920 mm, cover width 1000/875 mm. aluminium profile industrial troughed sheet of Alloy 1500/31000/40800, conforming to as per relevant IS code. The sheet shall be fixed using self drilling/self tapping SS screws of size 5.5x65 mm with EPDM seal complete upto required pitch in horizontal, vertical or curved surfaces i/c cutting to size and shape where required as per specifications, detail drawings and direction of Engineer-in-Charge. The rate shall be inclusive of all screws, seal, ridge, labour, working platform/stepladder, machinery for fixing and approved sealant where required. | 20.00 | 987.24 | Sqm | 19,744.80 |
| 11.14 | Providing and fixing corrugated galvanized iron sheets of 0.63 mm thickness (24 B.W.G.) for roofing, fencing including fastening with galvanized iron screws and nut bolts to the existing structural steel frame work, working platform/stepladder etc all complete as directed by Engineer In-Charge. | 5.00 | 981.32 | Sqm | 4,906.60 |
| 11.15 | Providing and fixing precoated galvanised iron profile sheets 0.50 mm (+ 0.05 %) total coated thickness with zinc coating 120grams per sqm as per relevant IS code, in 240 mpa steel grade, 5-7 microns epoxy primer on both side of the sheet and polyester top coat 15-18microns. Sheet should have protective guard film of 25 microns minimum to avoid scratches during transportation. The sheet shall be fixed using self drilling /self tapping screws of size (5.5x 55 mm) with EPDM seal, complete upto anypitch in horizontal excluding the cost of purlins, rafters and trusses and including cutting to size and shape wherever required etc all complete as directed by Engineer In-Charge. | 500.00 | 673.83 | Sqm | 3,36,915.00 |
| 11.16 | Providing fabricating and fixing in position required shape precoated Galvalume with 0.50 mm TCT flashing having 200mm width of Jindal make with required lapping for side of roofing sheet including cutting and fabricating in approved design,fixing the flashing properly as per manufacturers specification including working platform/stepladder etc all complete as directed by Engineer In-Charge. | 50.00 | 607.00 | Rmt | 30,350.00 |
| 11.17 | Providing fabricating and fixing in position required shape precoated Galvalume with 0.50 mm TCT flashing having 610mm width of Jindal make with required lapping for side of roofing sheet including cutting and fabricating in approved design,fixing the flashing properly as per manufacturers specification including working platform/stepladder etc all complete as directed by Engineer In-Charge. | 50.00 | 1,067.00 | Rmt | 53,350.00 |
| 11.18 | Providing fabricating and fixing in position required shape precoated Galvalume with 0.50 mm TCT gutter having 610mm width of Jindal make with required lapping for side of roofing sheet including cutting and fabricating in approved design,fixing the flashing properly as per manufacturers specification including working platform/stepladder etc all complete as directed by Engineer In-Charge. | 50.00 | 573.00 | Rmt | 28,650.00 |
| 11.19 | Providing fabricating and fixing in position required shape precoated Galvalume with 0.50 mm TCT ridge having 610mm width of Jindal make with required lapping for side of roofing sheet including cutting and fabricating in approved design,fixing the flashing properly as per manufacturers specification including working platform/stepladder etc all complete as directed by Engineer In-Charge. | 100.00 | 515.00 | Rmt | 51,500.00 |
| 11.20 | Supplying and fixing in position sandwich roofing using color galvalume profile precoated sheet for roofing having thickness 0.5mm TCT and jindal make with required colour at top and bottom sheet including necessary accessories like self drilling and tapping screws with weather cap with all leads and lift and fixing as per manufacturers specification, stiching the lap joints (Minimum 150mm) along the length of the sheet with rivets at a maximum spacing of 450 mm including necessary cutting of sheet wherever required and fixing properly in all respects to make the wall /roof water tight and leak proof, providing and fixing WMVPR RB Glasswool 16 kg/m3 - 50mm thickness between galvalume sheets and G. I. Channel having 50mm depth and 1.5mm thickness and connecting the Z purlins with each other including working platform/stepladder etc all complete as directed by Engineer In-Charge. (No extra payment will be made for overlapping) | 150.00 | 2,536.00 | Sqm | 3,80,400.00 |

| | | | | | |
|--------------------------|---|-----------|----------|-----------------|---------------------|
| 11.21 | Supplying and fixing in position sandwich roofing using above existing sheet in required color galvalume profile precoated sheet for roofing having thickness 0.5mm TCT and jindal make with required colour at top including necessary accessories like self drilling and tapping screws with weather cap with all leads and lift and fixing as per manufacturers specification, stitching the lap joints (Minimum 150mm) along the length of the sheet with rivets at a maximum spacing of 450 mm including necessary cutting of sheet wherever required and fixing properly in all respects to make the wall /roof water tight and leak proof, providing and fixing WMVPR RB Glasswool 16 kg/m3 - 50mm thickness between galvalume sheets and G. I. Channel having 50mm depth and 1.5mm thickness and connecting the Z purlins with each other including working platform/stepladder etc all complete as directed by Engineer In-Charge. (No extra payment will be made for overlapping) | 100.00 | 1,788.00 | Sqm | 1,78,800.00 |
| 11.22 | Providing & fixing co-extruded UV protected Microcell panel System 10mm thick (minimum) Polycarbonated UV installed sheets of Danpalon / SABIC / CE / Tuflite/Rooflite/Neolite any approved make of approved colour with antiglare softline colour on one side to prevent glare in curve or plane shape including all fittings and fixtures such as snap on connector with grip lock double tooth locking mechanism, mill finish aluminium U profile end cap, required flashing at the junction of wall/concrete surface and sheets and other required fittings as per manufacturer specifications and including making watertight at junction etc. all complete as directed by Engineer In-charge. | 100.00 | 3,577.00 | Sqm | 3,57,700.00 |
| 11.23 | Providing & fixing co-extruded UV protected Microcell panel System 12mm thick (minimum) Polycarbonated UV installed sheets of Danpalon / SABIC / CE / Tuflite/Rooflite/Neolite any approved make of approved colour with antiglare softline colour on one side to prevent glare in curve or plane shape including all fittings and fixtures such as snap on connector with grip lock double tooth locking mechanism, mill finish aluminium U profile end cap, required flashing at the junction of wall/concrete surface and sheets and other required fittings as per manufacturer specifications and including making watertight at junction etc. all complete as directed by Engineer In-charge. | 100.00 | 4,037.00 | Sqm | 4,03,700.00 |
| 11.24 | Providing & fixing co-extruded UV protected Microcell panel System 22mm thick (minimum) Polycarbonated UV installed sheets of Danpalon / SABIC / CE / Tuflite/Rooflite/Neolite any approved make of approved colour with antiglare softline colour on one side to prevent glare in curve or plane shape including all fittings and fixtures such as snap on connector with grip lock double tooth locking mechanism, mill finish aluminium U profile end cap, required flashing at the junction of wall/concrete surface and sheets and other required fittings as per manufacturer specifications and including making watertight at junction etc. all complete as directed by Engineer In-charge. | 100.00 | 5,762.00 | Sqm | 5,76,200.00 |
| | | | | Total 11 | 41,21,874.40 |
| 12 Finishing work | | | | | |
| 12.01 | Providing and applying one coat of seal cement primer IITB approved brand, cleaning the surface including covering the floor, window glass with plastic sheet, scrapping the surface, removing nails, socket holes, levelling the entire surface with lambi / palti with the use of working platform/stepladder, removing stains from floor after completion of work etc. all complete as directed by Engineer In-charge. (Make: Asian/Berger/Nerolac/Dulux) | 50,000.00 | 64.67 | Sqm | 32,33,500.00 |
| 12.02 | Providing and applying white cement based Birla make wall care putty with uniform thickness over the existing internal cement plaster in proper line / level including preparing the wall surface for the application of wall care putty and working platform/stepladder, covering the floor, window glass with plastic sheet and cleaning etc. all complete as directed by Engineer In-charge. | 5,000.00 | 124.27 | Sqm | 6,21,350.00 |
| 12.03 | Providing and applying Acrylic oil bound distemper of IITB approved manufacturer and of desired colour and shade to old / new ceiling & wall surfaces in two coats with uniform finish with the use of working platform/stepladder as per manufactures specification including covering the floor, window glass with plastic sheet and cleaning etc. all complete as directed by Engineer In-charge. (Make: Asian/Berger/Nerolac/Dulux) | 10,000.00 | 50.77 | Sqm | 5,07,700.00 |

| | | | | | |
|-------|--|-----------|----------|-----|--------------|
| 12.04 | Providing and applying Acrylic oil bound distemper of IITB approved manufacturer and of desired colour and shade to old / new ceiling & wall surfaces in single coat with uniform finish with the use of working platform/stepladder as per manufactures specification including covering the floor, window glass with plastic sheet and cleaning etc. all complete as directed by Engineer In-charge. (Make: Asian/Berger/Nerolac/Dulux) | 5,000.00 | 19.00 | Sqm | 95,000.00 |
| 12.05 | Providing and applying roller finish Acrylic plastic emulsion paint of IITB approved manufacturer and of desired colour and shade to old / new ceiling & wall surfaces in two coat with uniform finish with the use of working platform/stepladder, scrapping, preparing and levelling the surfaces with palti/putty, as per manufactures specification including covering the floor, window glass with plastic sheet and cleaning (excluding priming coat) etc all complete as directed by Engineer In-Charge. (Asian/Berger/Nerolac/Dulux) | 40,000.00 | 91.16 | Sqm | 36,46,400.00 |
| 12.06 | Providing and applying three coats of white wash on old / new plastered surface for walls and ceiling and asbestos sheet using working platform/stepladder, scrapping and cleaning the surface by sand paper and brooming, adding Robbin blue as required, adding adhesives for bonding, cleaning the floor, filling all cracks, holes etc. with plaster of paris, covering the floor, windows, instruments during painting etc. all complete as directed by Engineer In-charge. | 500.00 | 32.56 | Sqm | 16,280.00 |
| 12.07 | Providing and applying one coat of primer of IITB approved brand to wood work including preparing the surface by thoroughly cleaning oil, grease, dirt and other foreign matter, sand papering with use of working platform/stepladder, etc. all complete as directed by Engineer In-charge. (Make: Asian/ Berger/ Nerolac/ Dulux) | 2,000.00 | 61.66 | Sqm | 1,23,320.00 |
| 12.08 | Providing and applying one coat of primer of IITB approved brand to steel works including preparing the surface by thoroughly cleaning oil, grease, dirt and other foreign matter, sand papering with use of working platform/stepladder, etc. all complete as directed by Engineer In-charge. (Make: Asian/ Berger/ Nerolac/ Dulux) | 5,000.00 | 55.69 | Sqm | 2,78,450.00 |
| 12.09 | Providing and applying two coats of primer of IITB approved brand to wood work and steel works including preparing the surface by thoroughly cleaning oil, grease, dirt and other foreign matter, sand papering with use of working platform/stepladder, etc. all complete as directed by Engineer In-charge. (Make: Asian/ Berger/ Nerolac/ Dulux) | 2,000.00 | 111.38 | Sqm | 2,22,760.00 |
| 12.10 | Providing and applying two coats of synthetic enamel paint of approved colour and shade to new/old wood work, structural steel work including working platform/stepladder wherever required, cleaning and preparing surfaces by solvent, degreasing and derusting by manual scrapping, etc. all complete as directed by Engineer In-charge. (Make: Asian/ Berger/ Nerolac/ Dulux) | 10,000.00 | 86.84 | Sqm | 8,68,400.00 |
| 12.11 | Providing and applying French polishing in two or more coats upto desired finish on wood including knotting, preparing the surface, working platform/stepladder etc. all complete as directed by Engineer In-charge. | 50.00 | 369.55 | Sqm | 18,477.50 |
| 12.12 | Providing and applying Melamine polish of required finish to wood work by spray machine including knotting and preparing the surface by scrapping, applying polishing, working platform/stepladder if required etc. all complete as directed by Engineer In-charge. | 100.00 | 1,021.00 | Sqm | 1,02,100.00 |
| 12.13 | Providing and applying one coat of acrylic primer and two coats of exterior acrylic paint of approved colour & shade as per manufacturer's specification on old or new plastered surface over concrete / brickwork with the use of working platform/stepladder including cleaning the surface thoroughly with coir brush/ water jet, filling the cracks using appropriate exterior putty, watering the surface etc. complete including covering the floor, window glass with plastic sheet etc. all complete as directed by Engineer In-charge. (Make : Berger (Weathercoat), Asian (Ultima), Nerolac (Excel total)). | 50,000.00 | 167.42 | Sqm | 83,71,000.00 |
| 12.14 | Providing and applying one coat of acrylic primer and two coats of Terracotta exterior paint of IITB approved manufacturer and as per manufacturer's specification on old/new Floor surface at any floor , surface crake filing as per manufacturer's specification including cleaning the surface thoroughly with coir brush, watering , the surface, with use of working platform/stepladder etc all complete as directed by Engineer In-charge. (Make: Asian /Berger/ Nerolac/Dulux) | 100.00 | 259.00 | Sqm | 25,900.00 |

| | | | | | |
|-----------|--|----------|----------|-----------------|-----------------------|
| 12.15 | Providing & applying one coat of protectomastic self priming high build coating / Concessive ZRi of approved make, solvent borne zinc rich epoxy primer, having thickness as per manufacturer specification including applying one coat of intermediate epoxy high build finish and followed by two coats of an acrylic polyurethane enamel paint applying on to prime surface to obtain thickness as per manufacturer's specification on exposed structural steel members including preparing & cleaning, removing all old surface coating and corrosion, cement plaster residue etc. by using steel wire brushes/chisels, emery/sand papers, compressors/air blowers etc including necessary working platform/stepladder, taking all safety precautionary measures, covering the floor area by plastic, removing stains of paint from floor after completion of work etc all complete as directed by Engineer In-charge. (Make:Berger/Masterseal 260 of BASF/Nerolac/Asian) | 1,000.00 | 637.00 | Sqm | 6,37,000.00 |
| 12.16 | Providing & applying two or more coats of Aluminum paint of approved brand for metal surfaces to give uniform finish including cleaning the surface of all dirt, scales, oil, grease and foreign material, working platform/stepladder etc all complete as directed by Engineer In-charge. (Make: Asian/Berger/Nerolac/Dulux) | 100.00 | 121.86 | Sqm | 12,186.00 |
| 12.17 | Providing and applying plaster of paris putty of 2 mm thickness over plastered surface to prepare the surface even and smooth, working platform/stepladder, etc all complete as directed by Engineer In-charge. | 1,000.00 | 215.03 | Sqm | 2,15,030.00 |
| 12.18 | Providing / applying interior wall finish lustre of Asian/ Berger/ Nerolac/ Dulux Paints make on internal wall surface as detailed below scrapping the surface with emery paper and wipe clean. Applying Asian/ Berger/ Nerolac/ Dulux Paints wall primer with mineral turpentine with brush 8 to 10% and oil 15 to 20% with roller and allowing to dry for a period 6 to 8 hours. Applying Asian/ Berger/ Nerolac/ Dulux Paints Acrylic wall putty with appropriate proportion of water allowing to dry for period 4 to 6 hours. Scrapping with emery paper 180 and wipe clean. Applying Asian/ Berger/ Nerolac/ Dulux Paints wall primer with brush with mineral turpentine 8 to 10% and oil 15 to 20% with roller scrapping emery paper 320 and wipe clean, Applying Asian/ Berger/ Nerolac/ Dulux Paints interior wall finish lustre 1st coat with brush/ rubber/ sprary with mineral turpentine 7 to 9% and oil with roller 19 to 21% after 8 hours of activity and applying 2nd coat with of Asian/ Berger/ Nerolac/ Dulux Paints interior wall finish lustre with mineral turpentine 7 to 9% with brush and oil with roller 19 to 21% after allowing dry for the period of 6 to 8 hours activity, including working platform/stepladder etc all complete as directed by Engineer In-Charge. | 1,000.00 | 218.00 | Sqm | 2,18,000.00 |
| 12.19 | Providing and applying Anti-fungal paint of IITB approved manufacturer and of desired colour and shade to old / new ceiling & wall surfaces in two coats with uniform finish with the use of working platform/stepladder as per manufactures specification including covering the floor, window glass with plastic sheet and cleaning etc. all complete as directed by Engineer In-charge. (Make: Asian/Berger/Nerolac/Dulux) | 500.00 | 92.00 | Sqm | 46,000.00 |
| 12.20 | Providing and applying interior texture paint of IIT-approved manufacturer of desired colour and shade to wall surfaces in two coats with the use of a stepladder, scrapping the existing paint, preparing the base by scrapping the surface, applying putty etc. including priming coat etc. complete as directed by Engineer In-charge. (Make: Asian/Berger/Nerolac/Dulux) | 100.00 | 720.00 | Sqm | 72,000.00 |
| | | | | Total 12 | 1,93,30,853.50 |
| 13 | Aluminium work | | | | |
| 13.01 | Providing, making and fixing fully glazed aluminium double glass partition using 15micron/ powder coated anodized aluminium section of size 100x37x1.5mm thick (1.90Kg/Rmt), P/F 5mm thick clear plain glass in two layer for top and bottom section and 5mm thick writable glass in two layers for middle section of the partition with all required fittings such as rubber gasket, silica gel, silicon selent, glazing clips, screws and other required fittings etc. all complete as directed by Engineer In-charge. (all alu. fittings should 15 micron anodized or powder coated.) | 10.00 | 8,449.00 | Sqm | 84,490.00 |
| 13.02 | Providing and fixing 3mm thick plain aluminium composite sheet in partition, paneling and any other work with necessary fittings and fixtures etc. all complete as directed by Engineer In-charge. | 20.00 | 850.00 | Sqm | 17,000.00 |
| 13.03 | Providing and fixing 4 to 5mm thick both side designer aluminium composite sheet in partition, paneling and any other work with necessary fittings and fixtures etc. all complete as directed by Engineer In-charge. | 20.00 | 1,827.00 | Sqm | 36,540.00 |

| | | | | | |
|-------|---|----------|----------|-----|-------------|
| 13.04 | Providing and fixing 4 to 5mm thick both side plain aluminium composite sheet in partition, paneling and any other work with necessary fittings and fixtures etc. all complete as directed by Engineer In-charge. | 20.00 | 1,080.00 | Sqm | 21,600.00 |
| 13.05 | Providing and fixing 6mm thick transparent acrylic sheet in partition, paneling and any other work with necessary fittings and fixtures etc. all complete as directed by Engineer In-charge. | 20.00 | 781.00 | Sqm | 15,620.00 |
| 13.06 | Providing and fixing 6mm thick opaque acrylic sheet in partition, paneling and any other work with necessary fittings and fixtures etc. all complete as directed by Engineer In-charge. | 20.00 | 988.00 | Sqm | 19,760.00 |
| 13.07 | Providing and fixing without anodising or powder coating aluminium section for door frame, windows, partitions and any other required work etc. of required size including fixing with required fittings such as screws and other required fittings including fixing in proper alignment, rectifying all damaged, P/F wood inside frame for fixing hinges etc. all complete as directed by Engineer In-charge. | 100.00 | 437.00 | Kg | 43,700.00 |
| 13.08 | Providing and fixing 15 micron anodized/ powder coated aluminium section for door frame, windows, partitions and any other required work etc. of required size including fixing with required fittings such as screws and other required fittings including fixing in proper alignment, rectifying all damaged, P/F wood inside frame for fixing hinges etc. all complete as directed by Engineer In-charge. | 500.00 | 495.00 | Kg | 2,47,500.00 |
| 13.09 | Silicone sealants around window frames / window frame joints and drill holes for water outlet when the rain water on the glass fall into the channel and overflows (wherever required) including stepladder/working platform etc all complete as directed by Engineer In-charge. | 1,500.00 | 68.00 | Rmt | 1,02,000.00 |
| 13.10 | Providing and fixing in position two track aluminium sliding windows using drain bottom section of size 61 mm x 45 mm x 1.3 mm thick(1.055kg/Rmt) for bottom, sections of size 61 mm x 31mm x 1.3 mm thick(0.659Kg/Rmt) for sides and top. The shutter should be of bearing bottom of size 40 mm x18 mm x 1.25 mm thick(0.417Kg/Rmt) , top member of size 40 mm x 18 mm x 1.20 mm thick(0.475Kg/Rmt), Interlocking section size of 43 mm x 27 mm x 1.30 mm thick(0.558Kg/Rmt) and handle section of size 43mm x 18 mm x 1.30 mm thick(0.424Kg/Rmt) including providing and fixing 5mm thk. glass in the shutter using rubber gasket, approved quality minimum two nos.PVC rollers for each shutter, necessary locks, handles, PVC lining and other required fittings, etc. complete as directed by Engineer in charge.(Note: All aluminium sections and fitting are 15 micron anodized/ powder coated). | 10.00 | 5,942.00 | Sqm | 59,420.00 |
| 13.11 | Providing and fixing in position two track aluminium sliding windows using sections of size 61 mm x 31mm x 1.3 mm (not less than 0.659kg/mtr) thick for bottom, sides and top. The shutter should be of bearing bottom of size 40 mm x18 mm x 1.25 mm (not less than 0.417kg/mtr) thick , top member of size 40 mm x 18 mm x 1.20 mm (not less than 0.475kg/mtr) thick, Interlocking section size of 43 mm x 27 mm x 1.30 mm (not less than 0.558kg/mtr) thick and handle section of size 43mm x 18 mm x 1.30 mm (not less than 0.424kg/mtr) thick including providing and fixing 304 grade stainless steel mosquito proof mesh in the shutter, approved quality minimum two nos. PVC rollers for each shutter, necessary locks, handles, PVC lining and other required fittings, provision for fixing A.C. units (if required) etc. complete as directed by Engineer in charge.(Note: All aluminium sections and fitting are 15 micron anodized/ powder coated). | 10.00 | 4,940.00 | Sqm | 49,400.00 |
| 13.12 | P/F in position aluminium two track sliding windows in heavy anodized section 15 micron powder coated 30mm series including fixing of tracks, making holes for drainage water fixing 5mm thick clear double glass including adding silicate gel crystals or equivalent material in between two glasses, glazing clips, silicon sealant, rubber gasket, locks with handles and other required fittings, pressure patti, etc. all complete as directed by Engineer In-charge. (all alu. fittings and sections should be 15 micron anodized or powder coated.) | 10.00 | 8,514.00 | Sqm | 85,140.00 |

| | | | | | |
|-------|--|-------|-----------|-----|-------------|
| 13.13 | Providing and fixing in position aluminium two track sliding double glass window in heavy anodized section 15 micron with including frame work of aluminium hollow pipe section 75mm x 25mm size with 14 gauge thick weight of 1.036kg/m , aluminium sliding track of size 66.5x50mm of weight 1.329kg/m with shutter section of size 66x26mm of weight 0.774kg/m including gazing clip of size 38.7x 28.5 mm of weight 0.303kg/m including making holes for draining of water fixing 5mm thick clear double glass shutter with rubber gasket, concealed lock, approved make heavy quality bearing including all necessary fittings required for double glass window , providing silicon sealant if required etc. all complete as directed by Engineer In-charge. (Note: All aluminium sections and fitting are 15 micron anodized/ powder coated). | 5.00 | 11,425.00 | Sqm | 57,125.00 |
| 13.14 | Providing and fixing in position two track aluminium sliding windows using sections of size 61 mm x 31mm x 1.3 mm (not less than 0.659kg/mtr) thick for bottom, sides and top. The shutter should be of bearing bottom of size 40 mm x18 mm x 1.25 mm (not less than 0.417kg/mtr) thick , top member of size 40 mm x 18 mm x 1.20 mm (not less than 0.475kg/mtr) thick, Interlocking section size of 43 mm x 27 mm x 1.30 mm (not less than 0.558kg/mtr) thick and handle section of size 43mm x 18 mm x 1.30 mm (not less than 0.424kg/mtr) thick including providing and fixing 5mm thk. glass in the shutter using rubber gasket, approved quality minimum two nos. PVC rollers for each shutter, necessary locks, handles, PVC lining and other required fittingsetc. complete as directed by Engineer in charge.(Note: All aluminium sections and fitting are 15 micron anodized/ powder coated). | 5.00 | 5,802.00 | Sqm | 29,010.00 |
| 13.15 | Providing and fixing in position three track aluminium sliding windows using drain bottom section of size 92 mm x 45 mm x 1.05 mm (1.659kg/mtr) thick for bottom, sections of size 92 mm x 31mm x 1.3 mm (0.933kg/mtr) thick for sides and top. The shutter comprising of bottom and top member of size 40 mm x18 mm x 1.25 mm (0.417kg/mtr) thick , interlocking section of size 40 mm x 18 mm x 1.10 mm (0.469kg/mtr) thick and handle section of size 40mm x 18 mm x 1.25 mm (0.417kg/mtr) thick including providing and fixing 5mm thk. glass in the shutter using rubber gasket, approved quality minimum two nos. PVC rollers for each shutter, necessary locks, handles, PVC lining and other required fittings, etc. complete as directed by Engineer in charge.(Note: All aluminium sections and fitting are 15 micron anodized/ powder coated). | 30.00 | 5,843.00 | Sqm | 1,75,290.00 |
| 13.16 | Providing and fixing in position three track aluminium sliding windows using sections of size 92 mm x 31mm x 1.3 mm (0.933kg/mtr) thick for bottom, sides and top. The shutter comprising of bottom and top member of size 40 mm x18 mm x 1.25 mm (0.417kg/mtr) thick , interlocking section of size 40 mm x 18 mm x 1.10 mm (0.469kg/mtr) thick and handle section of size 40mm x 18 mm x 1.25 mm (0.417kg/mtr) thick including providing and fixing 5 mm thk. tinted / plain glass in two shutters and aluminum mosquito net in one shutter using rubber gasket, approved quality minimum two nos.PVC rollers for each shutter, necessary locks, handles, PVC lining and other required fittings,pump filled structural silicon sealant & hardware, making window watertight, provision for fixing A.C. units (if required) etc. all complete as directed by Engineer In-charge.(Note: All aluminium sections and fitting are 15 micron anodized/ powder coated). | 50.00 | 5,608.00 | Sqm | 2,80,400.00 |
| 13.17 | Providing and fixing in position three track aluminium sliding windows using sections of size 92 mm x 31mm x 1.30 mm (0.933kg/mtr) thick for bottom, sections of size 92 mm x 31mm x 1.30 mm (0.933kg/mtr) thick for sides and top. The shutter comprising of bottom and top member of size 40 mm x18 mm x 1.25 mm (0.417kg/mtr) thick , interlocking section of size 40 mm x 18 mm x 1.10 mm (0.469kg/mtr) thick and handle section of size 40mm x 18 mm x 1.25 mm (0.417kg/mtr) thick including providing and fixing 5mm thk. glass in the shutter using rubber gaskek with require fittings such as approved quality minimum two nos.PVC rollers for each shutter, necessary locks, handles, PVC lining and other required fittings, etc. complete as directed by Engineer in charge.(Note: All aluminium sections and fitting are 15 micron anodized/ powder coated). | 5.00 | 5,721.00 | Sqm | 28,605.00 |

| | | | | | |
|-------|---|-------|----------|-----|-----------|
| 13.18 | Providing and fixing in position three track aluminium sliding windows of six shutter using aluminium section of bottom of size 116mm x 25mm x 1.35 mm (1.160kg/mtr) thick ,for sides and top section of size 116mm x 25mm x 1.4 mm (1.005kg/mtr) thick . The shutter comprising of bearing bottom section of 60mm x25mm x1.45mm (0.781kg/rmt) and handle aluminium section member of size 50 mm x25mm x 1.5 mm (0.717kg/mtr) thick , interlocking aluminium section with both side interlocking arrangement 44.5mmx25mmx1.06mm(0.637kg/m) and interlocking section with one interlocking arrangement of 45mmx25mmx1.2mm(0.595kg/m) and for central locking providing F section of 40mm x25mm x1.5mm (0.545kg/rmt) including providing and fixing S.S 304 grade flyproof mesh in two shutter using ,aluminium U clip & 6mm toughen glass in four shutter using rubber gasket,. Heavy type of PVC rollers for each shutter, necessary sliding shutter latch, handles, PVC lining and other required fittings etc. complete as directed by Engineer in charge.(Note: All aluminium sections and fitting are 15 micron anodized/ powder coated). | 5.00 | 6,634.00 | Sqm | 33,170.00 |
| 13.19 | Providing and fixing extra shutter of comprising of bottom and top member of size 40 mm x18 mm x 1.25 mm (0.417kg/mtr) thick , interlocking section of size 40 mm x 18 mm x 1.10 mm (0.40kg/mtr) thick and handle section of size 40mm x 18 mm x 1.25 mm (0.417kg/mtr) thick including providing and fixing 5.0mm thick glass (Plain or frosted) in the shutter using neoprene gasket, approved quality minimum two nos.PVC rollers for each shutter, necessary locks, handles, PVC lining and other required fittings, etc. complete as directed by Engineer in charge.(Note: All aluminium sections and fitting are 15 micron anodized/ powder coated). | 5.00 | 2,988.00 | Sqm | 14,940.00 |
| 13.20 | Providing and fixing in position shutter in sliding window using aluminium section for bottom and top member of size 40 mm x18 mm x 1.25 mm (0.417kg/mtr) thick , interlocking section of size 40 mm x 18 mm x 1.10 mm (0.469kg/mtr) thick and handle section of size 40mm x 18 mm x 1.25 mm (0.417kg/mtr) thick including providing and fixing 304 grade stainless steel mosquito proof mesh in the shutter using approved quality minimum two nos.PVC rollers, necessary locks, handles and other required fittings, making shutter removable as and when require etc. complete as directed by Engineer in charge.(Note: All aluminium sections and fitting are 15 micron anodized/ powder coated). | 5.00 | 3,122.00 | Sqm | 15,610.00 |
| 13.21 | Carefully removing the exisiting aluminium sliding window with frame and shutter and refixing the same with proper modification like cutting the frames, glass, fixing new S.S. 304 flyproof mesh for mosquito for a new height after window granite work including necessary fittings and fixtures, stepladder etc. all complete as directed by Engineer In-charge. | 20.00 | 3,210.00 | Nos | 64,200.00 |
| 13.22 | Supplying, fabricating and fixing in position partly openable and partly fixed aluminium window using aluminium sections 42 x 30 x 1.5mm (not less than 0.526 kg/mtr) size aluminum single border outer frame of window shutter, 42 x 37 x 1.5mm (not less than 0.724 kg/mtr) size aluminum Z section for window shutter, 28 x 14.5 x 1.5mm size (not less than 0.286 kg/mtr), aluminum clip for window shutter, 45 x 45 x 1.5mm size (not less than 0.764 kg/mtr) Z aluminum center patti for mullion, 37mm x 37mm (not less than 0.820 kg/mtr) angles 2mm thick, 5mm thick plain or frosted glasses with rubber gasket, 3 Nos. S.S. hinges 75mm size (heavy) on each window shutter, aluminum tower bolt 100mm size 1 Nos on each leaf, aluminum stay 200mm to 250mm long 1 No per leaf, aluminum handle 1 Nos. per leaf, provision for fixing AC with teak wood members inside box, (if required) including fixing the window shutter on the aluminium single side partition section for outer frame and intermediate section of size 63x38x1.47mm thick (not less than 0.781 kg/mtr) etc. all complete as directed by Engineer In-charge. (Note: All aluminium sections and fitting are 15 micron anodized/ powder coated). | 5.00 | 7,577.00 | Sqm | 37,885.00 |
| 13.23 | Supplying, fabricating and fixing in position fully openable aluminium window using aluminium sections 42 x 30 x 1.5mm (not less than 0.526 kg/mtr) size aluminum single border outer frame of window shutter, 42 x 37 x 1.5mm (not less than 0.724 kg/mtr) size aluminum Z section for window shutter, 28 x 14.5 x 1.5mm size (not less than 0.286 kg/mtr), aluminum clip for window shutter, 45 x 45 x 1.5mm size (not less than 0.764 kg/mtr) Z aluminum center patti for mullion, 37mm x 37mm (not less than 0.820 kg/mtr) angles 2mm thick, 5mm thick plain or frosted glasses with rubber gasket, 3 Nos. S.S. hinges 75mm size (heavy) on each window shutter, aluminum tower bolt 100mm size 1 Nos on each leaf, aluminum stay 200mm to 250mm long 1 No per leaf, aluminum handle 1 Nos. per leaf, etc. all complete as directed by Engineer In-charge.(Note: All aluminium sections and fitting are 15 micron anodized/ powder coated). | 5.00 | 6,389.00 | Sqm | 31,945.00 |

| | | | | | |
|-------|--|-------|----------|-----|-------------|
| 13.24 | Providing and fixing in position aluminium 15 micron anodized openable window with stainless steel flyproof mesh of 304 grade having aluminium powder coated “ L” pipe section 38mm x 25mm (0.45kg/rmt) for frame and shutter frame of 38mm x 18mm (0.45kg/m) aluminium section and fixing the stainless steel mesh with U channel with screws including necessary fitting and fixtures such as two numbers stainless hinges, stainless steel handle one numbers and magnet or tower bolt two number etc. all complete as directed by Engineer In-charge. (Note: All aluminium sections and fitting are 15 micron anodized/ powder coated). | 10.00 | 3,777.00 | Sqm | 37,770.00 |
| 13.25 | Providing and fixing openable shutter made up of aluminium anodized 15 micron handle section 38mm x 18mm(0.45kg/rmt) or near available sections on top, bottom and sides, P/F 4mm thick ACP sheet of desired shed and pattern, P/F stainless steel hinges 75mmx35mm(2 nos.) for each shutter,1nos. of S.S tower bolt on each shutter,1no handle(S.S) for each shutter, magnet etc. including fixing the shutter over the L pipe section of 38mmx25mmx1.5mm (45kg/rmt) with screws in line and level,rectification of all damages etc. all complete as directed by Engineer In-charge. (Note: All aluminium sections and fitting are 15 micron anodized/ powder coated). | 5.00 | 5,590.00 | Sqm | 27,950.00 |
| 13.26 | Supplying, fabricating and fixing in position aluminum openable window using aluminum L tube section 24mm x 45mm (0.526 kg/mtr) for window frame,25 mm x 50mm (0.593 kg/mtr) for frame of window shutter fitted with aluminum mosquito net , including using 2 nos S.S. hinges 75mm long for shutter, 100 mm long aluminum handles 1 nos. for shutter,100 mm long aluminum tower bolts 1 nos , fixing glazing clips/ 'U'/F' channel for border and other necessary fittings including working platform etc all complete as directed by Engineer Incharge. (Note: All aluminium sections and fitting are 15 micron anodized/ powder coated). | 5.00 | 6,099.00 | Sqm | 30,495.00 |
| 13.27 | Supplying, fabricating and fixing in position aluminum openable window using aluminum L tube section 24mm x 45mm (0.526 kg/mtr) for window frame, 18 mm x 40mm (0.494 kg/mtr) for outer & 18 mm x 42 mm (0.503 kg/mtr) for intermediate frame of window shutter fitted with aluminum mosquito net , including using 2 nos S.S. hinges 75mm long for each shutter, aluminium Z handle 1 nos , fixing glazing clips/ 'U'/F' channel for border and other necessary fittings,pump filled structural silicon sealent & hardware etc all complete as directed by Engineer Incharge. (Note: All aluminium sections and fitting are 15 micron anodized/ powder coated). | 5.00 | 4,342.00 | Sqm | 21,710.00 |
| 13.28 | Supplying , fabricating and fixing in position fully glazed aluminium openable glass window (pivoted type window) using 15 micron anodised/ powder coated 52mm domal section for window shutter and border outer frame, Z clip, mulion, aluminium angle, 5mm thick plain/tinted glass with rubber gasket, adjustable hinges 2 Nos. on each shutter, Z handle 1 Nos including pump filled structural silicon sealent & hardware, making watertight etc. all complete as directed by Engineer In-charge. (Note: All aluminium sections and fitting are 15 micron anodized/ powder coated). | 30.00 | 7,866.00 | Sqm | 2,35,980.00 |
| 13.29 | Providing, making and fixing partly glazed partly opaque aluminium partition using 63mm x 38mm x 1.65mm (not less than 0.942kg/mtr)15 micron / powder coated anodized aluminium single groove partition section and 63mm x 38mm x 1.53mm (not less than 0.942kg/mtr) 15 micron / powder coated anodized aluminium double groove partition section for frame and ½” (12mm) thick both side decorative prelamated three layer flat pressed teakwood particle board (phenol Bonded) of BWP type exterior grade for opaque panels and 5mm thick clear plate glass fixed with glazing clips, rubber gasket etc. all complete as directed by Engineer In-charge. (Note: All aluminium sections and fitting are 15 micron anodized/ powder coated). | 10.00 | 3,994.00 | Sqm | 39,940.00 |
| 13.30 | Providing, making and fixing partly glazed partly opaque aluminium partition using 63mm x 38mm x 1.65mm (not less than 0.942kg/mtr)15 micron / powder coated anodized aluminium single groove partition section and 63mm x 38mm x 1.53mm (not less than 0.942kg/mtr) 15 micron / powder coated anodized aluminium double groove partition section for frame and 4mm thick both side colour and designer aluminium composite sheet of approved make of approved colour up to 1200mm height or as per requirment and 5mm thick clear plate glass fixed with glazing clips, rubber gasket etc. all complete as directed by Engineer In-charge. (Note: All aluminium sections and fitting are 15 micron anodized/ powder coated). | 10.00 | 3,912.00 | Sqm | 39,120.00 |

| | | | | | |
|-------|--|-------|----------|-----|-------------|
| 13.31 | Providing, making and fixing fully opaque aluminium partition using 63mm x 38mm x 1.65mm (not less than 0.942kg/mtr) 15 micron / powder coated anodized aluminium single groove partition section and 63mm x 38mm x 1.53mm (not less than 0.942kg/mtr) 15 micron / powder coated anodized aluminium double groove partition section for frame, providing and fixing 4mm thick both side colour and designer aluminium composite sheet of approved make of approved colour fixed with glazing clips, rubber gasket etc. all complete as directed by Engineer In-charge. | 5.00 | 3,873.00 | Sqm | 19,365.00 |
| 13.32 | Providing, making and fixing fully opaque aluminium partition using 63mm x 38mm x 1.65mm (not less than 0.942kg/mtr) 15 micron / powder coated anodized aluminium single groove partition section and 63mm x 38mm x 1.53mm (not less than 0.942kg/mtr) 15 micron / powder coated anodized aluminium double groove partition section for frame, providing and fixing ½" (12mm) thick both side decorative prelaminate three layer flat pressed teakwood particle board (phenol Bonded) of BWP type exterior grade fixed with glazing clips etc. all complete as directed by Engineer In-charge. | 5.00 | 3,864.00 | Sqm | 19,320.00 |
| 13.33 | Providing, making and fixing fully glazed aluminium double glass partition using 15micron/ powder coated anodized aluminium section of size 100x37x1.5mm thick (1.90Kg/Rmt), P/F 5mm thick clear plain glass in two layer with all required fittings such as rubber gasket, silica gel, silicon sealant, glazing clips, screws and other required fittings etc. all complete as directed by Engineer In-charge. (Note: All aluminium sections and fitting are 15 micron anodized/ powder coated). | 10.00 | 7,145.00 | Sqm | 71,450.00 |
| 13.34 | Providing and fixing in position fixed glazing partition using 63mm x 38mm x 1.65mm (0.942 kg/rmt) 15 micron / powder coated anodized aluminium partition section for frame with screws and providing 5mm thick clear plate glass fixed to the above frame using glazing clip with rubber gaskets, filling all gaps with appropriate fillers etc. all complete as directed by Engineer In-charge. | 10.00 | 5,001.00 | Sqm | 50,010.00 |
| 13.35 | Providing & fixing in position Aluminum partition made using 2.5" x 1.5" Aluminum pipe section at 600mm c/c as frame with 3mm thick one side designer aluminium composite sheet manufacturer by Altobond with approved pattern and colour on inside portion using double tape and silicone sealant, making necessary arrangement of raceway with removable type panels for electrical/ lan/ telephone work, with all required fittings and fixtures, inserting wood packing wherever required etc. all complete as directed by Engineer In-charge. (Note: All aluminium sections and fitting are 15 micron anodized/ powder coated). | 10.00 | 3,724.00 | Sqm | 37,240.00 |
| 13.36 | Providing & fixing in position Aluminum partition made using 2.5" x 1.5" Aluminum pipe section at 600mm c/c as frame (without anodizing) with 12mm thick marine plywood of IITB approved make using screws, nails in proper line and level, making necessary arrangement of raceway with removable type panels for electrical/ lan/ telephone work, with all required fittings and fixtures, inserting wood packing wherever required etc. all complete as directed by Engineer In-charge. | 10.00 | 3,805.00 | Sqm | 38,050.00 |
| 13.37 | Supplying, fabricating and fixing in position fully glazed single /double leaf aluminum anodized openable door shutter using aluminum standard door section 80mm x 40mm (not less than 1.055 kg/mtr) for all verticals, top & bottom members, providing and fixing 5mm thick clear/ bajri glass, glazing clips, rubber gasket including heavy duty hinges, 1' long decorative stainless steel handles 2 nos. for each shutter, lock, vertical aluminium section at side etc. all complete as directed by Engineer In-charge. (Note: All aluminium sections and fitting are 15 micron anodized/ powder coated and fittings should be approved before installation) | 20.00 | 4,423.00 | Sqm | 88,460.00 |
| 13.38 | Providing, fabricating and fixing in position partly opaque and partly glazed aluminum anodized openable door in single or double leaf shutter using aluminum standard door section 80mm x 40mm (not less than 1.139kg/mtr) for verticals and middle, 100mm x 40mm (not less than 1.60kg/mtr) for top & bottom members, 12mm thick both side decorative prelaminate particle board (Novapan) of approved colour up to 1200mm height and 5mm thick clear/ bajri glass above opaque panels, glazing clips, rubber gasket including using 3 nos stainless steel hinges 4" long for each shutter, 9" long stainless steel handles 2 nos. for each shutter, lock, stainless steel tower bolt 8" long 1 no for each shutter and other required fittings etc. all complete as directed by Engineer In-charge. (Note: All aluminium sections and fitting are 15 micron anodized/ powder coated). | 20.00 | 5,681.00 | Sqm | 1,13,620.00 |

| | | | | | |
|-------|---|-------|-----------|-----|-------------|
| 13.39 | Providing, fabricating and fixing in position partly opaque and partly glazed aluminum anodized openable door in single or double leaf shutter using aluminum standard door section 80mm x 40mm (not less than 1.139kg/mtr) for verticals and middle, 100mm x 40mm (not less than 1.60kg/mtr) for top & bottom members, 4mm thick both side colour and designer aluminium composite sheet up to 1200mm height or as per plan and 5mm thick clear/ bajri glass above opaque panels, glazing clips, rubber gasket including using 3 nos stainless steel hinges 4" long for each shutter, 9" long stainless steel handles 2 nos. for each shutter, lock, stainless steel tower bolt 8" long 1 no for each shutter and other required fittings etc. all complete as directed by Engineer In-charge. (Note: All aluminium sections and fitting are 15 micron anodized/ powder coated). | 10.00 | 5,643.00 | Sqm | 56,430.00 |
| 13.40 | Supplying, fabricating and fixing in position fully glazed single/double leaf aluminum anodized sliding door shutter using aluminum standard door section 80mm x 40mm (not less than 1.055 kg/mtr) for all verticals, top & bottom members, providing and fixing 5mm thick clear/ bajri glass, glazing clips, rubber gasket including P/F sliding arrangement for top and bottom of door shutter, handles 2 nos., lock, vertical aluminium section at side etc. all complete as directed by Engineer In-charge. (Note: All aluminium sections and fitting are 15 micron anodized/ powder coated). | 10.00 | 4,183.00 | Sqm | 41,830.00 |
| 13.41 | Supplying, fabricating and fixing in position partly opaque and partly glazed aluminum anodized sliding door shutter using aluminum standard door section 80mm x 40mm for verticals, 100mm x 40mm for top, middle & bottom members, 12mm thick both side decorative prelaminate particle board (Novapan) of approved colour for opaque panels and 5mm thick clear/ bajri glass above opaque panels, glazing clips, rubber gasket including P/F sliding arrangement for top and bottom of door shutter, handles 2 nos., lock, vertical aluminium section at side etc. all complete as directed by Engineer In-charge. (Note: All aluminium sections and fitting are 15 micron anodized/ powder coated).Width and height of shutter will be measured for payment. | 10.00 | 5,134.00 | Sqm | 51,340.00 |
| 13.42 | Supplying, fabricating and fixing in position partly opaque and partly glazed aluminum anodized sliding door shutter using aluminum standard door section 80mm x 40mm for verticals, 100mm x 40mm for top, middle & bottom members, 4mm thick both side colour and designer aluminium composite sheet of approved make and approved colour and 5mm thick clear/ bajri glass above opaque panels, glazing clips, rubber gasket including P/F sliding arrangement for top and bottom of door shutter, handles 2 nos., lock, vertical aluminium section at side etc. all complete as directed by Engineer In-charge. (Note: All aluminium sections and fitting are 15 micron anodized/ powder coated). | 10.00 | 5,141.00 | Sqm | 51,410.00 |
| 13.43 | Supplying, fabricating and fixing in position aluminum openable door using aluminum L tube section 24mm x 45mm (0.526 kg/mtr) for door chaukhat, 25mm x 50mm (0.593 kg/mtr) for outer frame of door shutter & 25mm x 50mm (0.584 kg/mtr) for intermediate frame of door shutter fitted with aluminum mosquito net , including using 3 nos S.S. hinges 75mm long for shutter, 100 mm long aluminum handles 2 nos. for shutter, 100 mm long aluminum tower bolts 2 nos , fixing glazing clips/ 'U'/F' channel for border and other necessary fittings. etc. all complete as directed by Engineer Incharge. | 10.00 | 3,511.00 | Sqm | 35,110.00 |
| 13.44 | Supplying, fabricating and fixing in position aluminum openable door using aluminum L tube section 25mm x 50mm (0.765 kg/mtr) for door chaukhat, 25mm x 50mm (0.738 kg/mtr) for outer & intermediate frame of door shutter fitted with aluminum mosquito net , including using 3 nos S.S. hinges 75mm long for shutter, 100 mm long aluminum handles 2 nos. for shutter, 100 mm long aluminum tower bolts 2 nos , fixing glazing clips/ 'U'/F' channel for border and other necessary fittings. etc. all complete as directed by Engineer Incharge. (Note: All aluminium sections and fitting are 15 micron anodized/ powder coated). | 20.00 | 4,108.00 | Sqm | 82,160.00 |
| 13.45 | Providing and fixing 12mm thick Toughen glass openable door shutter including heavy duty decorative stainless steel handles 300mm long (2 Nos.) on each leaf, lock of approved quality and make, heavy duty floor spring having capacity not less than 150kg for each leaf, top and bottom patch fittings, SS top and bottom pivot including making proper adjustment for smooth operation including making necessary excavation in floor for fixing the floor spring and making good the same matching to the existing floor finishing and cover plates with brass pivot and single piece M.S. sheet outer box with slide plate etc. all complete as directed by Engineer In-charge. | 10.00 | 11,564.00 | Sqm | 1,15,640.00 |

| | | | | | |
|-------|---|--------|-----------|-----|-------------|
| 13.46 | Providing and fixing single/double leaf SS 304 grade stainless steel door 32mm thick with stainless steel frame of required size fabricated in company with 3 nos. 4" long heavy duty S.S Hinges for each shutter, lock, 2 nos. 230mm long S.S Handle for each shutter, 9" long S.S tower bolt for each shutter, providing and fixing vision panel using 5mm thick plain glass with S.S bedding and stainless steel grill in vision panel including fittings such as screws and other required fittings etc. all complete as directed by Engineer In-charge. | 10.00 | 21,349.00 | Sqm | 2,13,490.00 |
| 13.47 | Providing and fixing aluminium louvered ventilators using 50mm x 25mm x 16 gauge (not less than 0.593 kg/mtr) aluminium box frame anodized to 15 microns / powder coated for outer frame and intermediate vertical members as directed including 5mm thick plain or frosted glass 125mm wide for louvers at proper inclination including P/F glass on adjustable aluminium louvered of approved size and making provision of fixing exhaust fan etc. all complete as directed by Engineer In-charge. | 30.00 | 6,022.00 | Sqm | 1,80,660.00 |
| 13.48 | Providing and fixing anodized 75±20 micron aluminium partly louvered and partly fixed ventilators in passage area using 75mm x 25mm x 16 gauge thick aluminium (Jindal make) section for outer frame, 5mm thick frosted glass 100 to 150mm wide panes for louvers at proper inclinations. Providing and fixing U – channels for glasses with rubber gasket, filling all joints with proper fillers etc. Including removing the old aluminium window etc all complete as directed by Engineer In-Charge. Powder coating of aluminium section will have to be tested in the laboratory of IITB / VJTI / SPCE and the testing charges are to be paid by the contractor. Note:contractor will be allowed to take away old window if available and for which 5% deduction will be made of schedule rate of this item | 30.00 | 9,844.00 | Sqm | 2,95,320.00 |
| 13.49 | Providing and fixing anodized 75±20 micron aluminium louvered ventilators in staircase window using 75mm x 25mm x 16 gauge thick aluminium (Jindal make) section for outer frame, 5mm thick frosted glass 100 to 150mm wide panes for louvers at proper inclinations. Providing and fixing U – channels for glasses,filling all joints with proper fillers etc. all complete as directed by Engineer In-charge. Note:contractor will be allowed to take away old window if available and for which 5% deduction will be made of schedule rate of this item | 30.00 | 6,096.00 | Sqm | 1,82,880.00 |
| 13.50 | Supplying, fabricating and fixing in position aluminium louvered ventilator using aluminium box section of size 63mmx37mm (not less than 1.054 kg/mtr) for outer frame, aluminium flat of size 25mm x 5mm of weight not less than 0.337 Kg/mtr for fixing louvers of size 79mm x 30.3mm x 2mm of weight not less than 0.599 Kg/m (jindal section 20782), filling all gaps with appropriate fillers, screws, bolts etc. all complete as directed by Engineer In-charge. (Note: All aluminium sections and fitting are 15 micron anodized/ powder coated). | 20.00 | 5,355.00 | Sqm | 1,07,100.00 |
| 13.51 | Providing and fixing aluminum decorative type ornamental grills 50mm x 50mm opening size and 10mm thick on an anodized aluminum outer frame 50 x 25 x 17 gauge thick and intermediate members of hollow type box section, providing U / F type channels of required size around the grill etc. all complete as directed by Engineer In-charge. | 150.00 | 3,652.00 | Sqm | 5,47,800.00 |
| 13.52 | Providing and fixing Aluminium fly proof mesh fixed in frame made of Aluminum section of 37mmx18mmx1.2mm including all necessary fitting and fixtures with proper locking arrangement and working platform etc. all complete as directed by Engineer In-charge.(Note: All aluminium sections should be 15 micron anodized/ powder coated). | 50.00 | 3,101.00 | Sqm | 1,55,050.00 |
| 13.53 | Providing, fabrication & fixing structural glazing work using aluminum sections for vertical and horizontal having size 114mm x63mm x2.5mm thick (not less than 2.44 kg/mtr.), providing and fixing 4mm thick designer aluminium composite sheet of approved colour and pattern in the panels with all necessary fittings, fixtures, screws, pump filled structural silicon sealant & hardware, making partition watertight, etc. all complete as directed by Engineer In-charge. (all aluminium sections should be 15 micron anodized/ powder coated and shop drawing will be provided by contractor before execution of work.) | 10.00 | 10,862.00 | Sqm | 1,08,620.00 |
| 13.54 | Providing, fabrication & fixing structural glazing work using aluminum sections for vertical and horizontal having size 114mm x63mm x2.5mm thick (not less than 2.44 kg/mtr.), providing and fixing Tinted toughened 6mm thick glass in the panels with all necessary fittings, fixtures, screws, pump filled structural silicon sealant & hardware, making partition watertight, etc. all complete as directed by Engineer In-charge. (all aluminium sections should be 15 micron anodized/ powder coated and shop drawing will be provided by contractor before execution of work.) | 10.00 | 12,711.00 | Sqm | 1,27,110.00 |

| | | | | | |
|-------|--|-------|-----------|---------|-------------|
| 13.55 | Providing, fabrication & fixing structural glazing work using aluminum sections for vertical and horizontal having size 239mm x 50mm x 3mm thick (not less than 5.291 kg/mtr.), Pressure Plate section (not less than 0.404kg/mtr) & cover cap section (not less than 0.318kg/mtr) Site clip section (not less than 0.0108kg/mtr) LOUVRE sections Size of (220.55mm x 31.95mm Section) (not less than 2.54 kg/mtr) providing and fixing Tinted toughening 8mm thick glass in the panels with all necessary fittings, fixtures, screws, pump filled structural silicon sealant & hardware, making partition watertight, etc all complete as directed by Engineer In-Charge. (Note: All aluminium sections and fitting are 15 micron anodized/ powder coated). | 10.00 | 18,990.00 | Rmt | 1,89,900.00 |
| 13.56 | P/F Pivoted windows using 'Z' section of size 42 x 32 x 1.5mm (not less than 0.920 kg/mtr), 15 micron anodised, providing and fixing 6mm thk. tinted toughening glass including all necessary fittings such as aluminium Z clips, aluminium pipe, aluminium angle, screws, nails, aluminium pivoted stay 2 nos., aluminium Z handles 1 no. etc. and other required fittings including EPDM rubber gaskets, pump filled structural silicon sealant & hardware, making window watertight, etc. all complete as directed by Engineer In-charge. (Note: All aluminium sections and fitting are 15 micron anodized/ powder coated and shop drawing will be provided by contractor before execution of work). | 10.00 | 8,926.00 | Sqm | 89,260.00 |
| 13.57 | Providing, Fabricating and fixing at all floors, locations and heights stainless steel storage / Service Units / kitchen trolleys below existing granite Kitchen Platform upto depth 24 " to 26" as required made with 304 S.S. (Food grade) Comprising of 19mm square pipes outer frame, sink unit with bottle and bin holders, bottle pull out, utensils and storage unit kit etc. as desired by Engineer incharge and as per approved design consisting of 6mm dia S.S. round bars and 5mm dia distribution S.S. round bars or 1 mm thick perforated S.S. sheet where ever required & fabricated as directed including cost of providing teakwood Frame work, Sliding channel, 18mm waterproof plywood with sunmica facia, handles, screws, nails, cost of materials, transporting, labour, wastage and testing etc. all complete as directed by Engineer In-charge. (weight of the trolley should not be less than 55kg/sqm of elevational area) | 5.00 | 32,976.00 | Sqm | 1,64,880.00 |
| 13.58 | Removing, making addition/ alternation and refixing existing two track Aluminum sliding window size 1.40 x 1.20m for provision of exhaust fan providing and fixing using required aluminium section aluminum pipe 3"x1", 1"x2" T/B shutter channel, 1"x3/4" 'F' channel & 1"x1 1/2"L' channel, 5mm clear glass, 3/4" bearing 4nos, rubber gasket, wool foil, star lock including etc. all complete as directed by Engineer In-charge. | 30.00 | 3,748.00 | per job | 1,12,440.00 |
| 13.59 | Providing & fixing Stainless steel 304 grade kitchen trolley including 3 nos drawers supporting frame with minimum 25kg /Rmt of length of trolley below kitchen counter including channels & 18mm thick plywood and 1mm sunmica both side, and 40 x 50mm finished size teakwood frame with including 2 coat of polishing etc. all complete as directed by Engineer In-charge. | 10.00 | 19,250.00 | Rmt | 1,92,500.00 |
| 13.60 | Providing and fixing shutter below platform and for cupboard made of aluminium anodized 15 micron or powder coated L type section for frame 38 x 25x1.2mm or near available handle section 40x18x1.2mm for shutter Top & bottom and sides, P/F 4mm thick ACP sheet (Plain/Designer), P/F stainless steel hinges 75mm x 20mm, S.S. Tower bolt and magnet handle (S.S.) fixing shutter on aluminium frame with screws properly in line and level, etc. all complete as directed by Engineer In-charge. | 20.00 | 3,752.00 | Sqm | 75,040.00 |
| 13.61 | Providing and fixing aluminium framing for the existing/new mirror with 2" x 1" aluminum handle patti, rubber gasket, 1" x 1" x 2" aluminum 'L' and screws including removing the mirror from the wall safely and refixing it back with necessary fitting and cleaning the site etc. all complete as directed by Engineer In-charge. | 20.00 | 2,112.00 | Nos | 42,240.00 |
| 13.62 | Providing/fixing toughened laminated thermal insulated glass of 6mm thick having all clean cut and polished edges of IITB approved brand at all heights for balcony/outer railings including fixing it with appropriate D bracket SS 304 including removing old types of glass and cleaning & safely disposing all the glass pieces away etc. all complete as directed by Engineer In-charge. | 10.00 | 9,934.00 | Sqm | 99,340.00 |
| 13.63 | Carefully removing ACP sheet paneling with aluminium frame work and refixing the same at its original location by correcting slope without damaging it with all necessary fittings, fixtures, screws, gaskets, pump filled structural silicon sealant & hardware, making joints watertight with use of working platform, etc. completed as directed Engineer In-charge. | 50.00 | 551.00 | Sqm | 27,550.00 |

| | | | | | |
|-------|---|--------|----------|-----|-------------|
| 13.64 | Providing and fixing 4mm thick exterior grade ACP sheet of approved colour and pattern over existng alumnium frame, fixing the panels using 3M tape, filling the joints using 789 grade silicon sealant with all required fittings and fixtures, screws, hardwar, etc complete as directed by Engineer In-charge. . | 50.00 | 2,700.00 | Sqm | 1,35,000.00 |
| 13.65 | Providing and fixing ISI marked and IITB approved make hydraulic door closer to door shutter including making proper adjustment for smooth operation etc. completed as directed Engineer In-charge. | 50.00 | 1,540.00 | Nos | 77,000.00 |
| 13.66 | Providing and fixing double action hydraulic floor springWith stainless steel cover plate minimum 1.25 mm thickness of approved brand and manufacture conforming to as per relevant IS code, having brand logo embossed on the body / plate with double spring mechanism and door weight upto 125 kg, for doors, including cost of cutting floors, embedding in floors as required and making good the same matching to the existing floor finishing and cover plates with brass pivot and single piece M.S. sheet outer box with slide plate etc. complete as per the direction of Engineer-in-charge. | 20.00 | 2,457.16 | Nos | 49,143.20 |
| 13.67 | Providing and fixing blackout horizontal (Marvell Make) roller blinds water resistant cloth of required size and colour including all necessary accessories and installation at any height etc. all complete as directed by Engineer In-charge.(sample of roller blind should be approved before installation) | 10.00 | 1,485.00 | Sqm | 14,850.00 |
| 13.68 | Providing and fixing translucent horizontal (Marvell Make) roller blinds water resistant cloth of required size and colour including all necessary accessories and installation at any height etc. all complete as directed by Engineer In-charge.(sample of roller blind should be approved before installation) | 10.00 | 1,423.00 | Sqm | 14,230.00 |
| 13.69 | Providing and fixing sun screen horizontal (Marvell Make) roller blinds water resistant cloth of required size and colour including all necessary accessories and installation at any height etc. all complete as directed by Engineer In-charge.(sample of blind should be approved before installation) | 10.00 | 1,547.00 | Sqm | 15,470.00 |
| 13.70 | Providing and fixing 25mm to 50mm wide vertical venetain blinds in aluminium or fabric strips of approved make and colour with all accessories etc. all complete as directed by Engineer In-charge. | 10.00 | 2,159.00 | Sqm | 21,590.00 |
| 13.71 | Providing and fixing reflective type sun control film of approved type of Garware make with cutting, fixing etc. all complete as directed by Engineer In-charge. | 10.00 | 1,060.00 | Sqm | 10,600.00 |
| 13.72 | Providing and fixing heavy duty capsule hinges for M.S gate including fixing with gate with necessary welding etc. all complete as directed by Engineer In-charge. | 20.00 | 352.00 | Nos | 7,040.00 |
| 13.73 | Providing and fixing medium duty capsule hinges for M.S gate including fixing with gate with necessary welding etc. all complete as directed by Engineer In-charge. | 20.00 | 254.00 | Nos | 5,080.00 |
| 13.74 | Removing existing wallpaper from wall carefully without damaging the wall plaster and Providing & Pasting new wall paper of make Splendor, Royal, STC (Imported) of approved design with required adhesive all complete as directed by Engineer In-charge. | 20.00 | 1,609.00 | Sqm | 32,180.00 |
| 13.75 | P/F 25mm dia aluminum powder coted heavy duty (58.33gram/ft) approved draftery curtain rod with decorative side holders including required fittings and screws (length upto 1.5m) etc. all complete as directed by Engineer In-charge. | 5.00 | 462.00 | Rmt | 2,310.00 |
| 13.76 | P/F 25mm dia aluminum powder coted heavy duty (58.33gram/ft)approved draftery curtain rod with decorative side holders and middle brackets including required fittings and screws(length beyond 1.5m) etc. all complete as directed by Engineer In-charge. | 5.00 | 589.00 | Rmt | 2,945.00 |
| 13.77 | P/F 25mm dia Stainless steel 304 grade heavy duty 16 gauge approved pattern curtain rod with decorative side holders and middle brackets including required fittings and screws etc. all complete as directed by Engineer In-charge. | 5.00 | 803.00 | Rmt | 4,015.00 |
| 13.78 | Providing and fixing magnet catch set as per existing model including necessary fittings and fixtures, removing the old damaged set and cleaning the site etc. all complete as directed by Engineer In-charge. (Note: The old dismantled materials should be deposited in Estate store and take certificate of it) | 100.00 | 228.00 | Nos | 22,800.00 |
| 13.79 | Providing and fixing Mortise lock cylinder 80mm with keys as per existing model including necessary fittings and fixtures, removing the old damaged set without damaging to door and cleaning the site etc. all complete as directed by Engineer In-charge. (Note: The old dismantled materials should be deposited in Estate store and take certificate of it) | 20.00 | 773.00 | Nos | 15,460.00 |

| | | | | | |
|-------|---|--------|----------|-----|-------------|
| 13.80 | Providing and fixing Door Stopper S.S. finish Heavy type, as per existing model including necessary fittings and fixtures, removing the old damaged set without damaging to door and cleaning the site etc. all complete as directed by Engineer In-charge. (Note: The old dismantled materials should be deposited in Estate store and take certificate of it) | 200.00 | 124.00 | Nos | 24,800.00 |
| 13.81 | Replacing by providing and fixing 5mm thick plain /bajari sheet glass of doors and windows etc. Including beading patti. Make Modi Guard/Saint-Gobain/Pilkington/Asahi Float etc. all complete as directed by Engineer In-charge. | 100.00 | 1,137.00 | Sqm | 1,13,700.00 |
| 13.82 | Providing and fixing brass eye glass of approved quality, type, make, size and shape etc to door shutter etc. all complete as directed by Engineer In-charge. contractor will be allowed to take away old peep glass eye glass if available and for which 5% deduction will be made of schedule rate of this item | 10.00 | 267.00 | Nos | 2,670.00 |
| 13.83 | Providing and fixing for drying cloth unit 6mm dia nylon rope etc. all complete as directed by Engineer In-charge. | 100.00 | 11.00 | Rmt | 1,100.00 |
| 13.84 | Providing and Fixing 12mm thick Acoustic Sheet for sound proof of approved brand like armstrong etc. size 600mm x 600mm on teakwood frame of size 50mm x 37mm having anti termite coating including one coat of wood primer and two coats of synthetic enamel paint, fixing the same on existing wall/ceiling with screws/nails, fevicol including necessary fittings and fixtures as per site requirement and as directed by Engineer-In-Charge. | 20.00 | 4,020.00 | Sqm | 80,400.00 |
| 13.85 | Design supply & installation of suspended Spider Glazing system designed to withstand the wind pressure as per relevant IS code. The Suspended System held with Spider Fittings of SS-316 Grade Steel of approved manufacturer with glass panel having 12 mm thick clear toughened glass held together with SS- 316 Grade Stainless steel Spider & bolt assembly . The assembly shall be connected to floor/ceiling by means of SS- 316 Grade stainless steel brackets & Anchor bolts and at the bottom using SS channel of 50x25x2mm using fastener & anchor bolts, non staining weather sealants of approved make, Teflon/ nylon bushes and separators to prevent bi-metallic contacts, all complete to perform as per specification and approved drawings. The complete system to be designed to accommodate thermal expansion & seismic movements etc. The joints between glass panels (6 to 8 mm) and gaps at the perimeter & in U channel of the assembly to be filled with non staining weather sealant, so as to make the entire system fully water proof & dust proof. The rate shall include all design, Engineering and shop drawing including approval from structural designer, labour, T&P, working platform, other incidental charges including wastage, enabling temporary services all fitting fixers nut bolts, washer, Buffer plates, fastener, anchors, SS channel laminated glass etc all complete as directed by Engineer In-Charge. For the purpose of payment, actual elevation area of Glazing including thickness of joints and the portion of Glass panel inside the SS channel shall be measured. | 20.00 | 8,257.97 | Sqm | 1,65,159.40 |
| 13.86 | Design, supply and installation of ACP work incorporating of 4 mm thick Aluminum Composite Cladding sheet of Altobond or Eurobond make of approved colour, the top and bottom layer of 0.5 mm thick Aluminum Sheet sandwiched with 3 mm thick polythylene core, supported by M. S. cleat duly black painted. The back up structure will be made of Aluminum 38 mm x 38 mm rectangular tube with all fittings, fixtures, hardware and pump filled 789 grade Silicone Sealant with all fittings and fixtures up to any height including working platform for ACP facade cleaning work etc. all complete as directed by Engineer In-charge. | 20.00 | 4,738.00 | Sqm | 94,760.00 |
| 13.87 | Providing and fixing aluminum sheet of 16 gauge including binding, revetting, brackets, bolts, nuts, hanging rods, washers and other necessary fixture and fittings etc., including making necessary connections with rain water pipes, working platform etc. all complete as directed by Engineer In-charge | 20.00 | 2,720.00 | Sqm | 54,400.00 |
| 13.88 | Providing, supplying and fixing new 6 mm thick Toughened glass in facade/ other location of any building at any height including removing the old damaged/broken glass including fixing with lamination sheet as per site requirements including required fittings and fixtures, filling the gaps with silicon sealant etc all complete as directed by Engineer In-charge. | 20.00 | 5,487.00 | Sqm | 1,09,740.00 |
| 13.89 | Providing, supplying and fixing new 8 mm thick Toughened glass in facade/ other location of any building at any height including removing the old damaged/broken glass including fixing with lamination sheet as per site requirements including required fittings and fixtures, filling the gaps with silicon sealant etc all complete as directed by Engineer In-charge. | 20.00 | 7,442.00 | Sqm | 1,48,840.00 |

| | | | | | |
|-----------|---|----------|-----------|-----------------|---------------------|
| 13.90 | Providing, supplying and fixing new 10 mm thick Toughened glass in facade/ other location of any building at any height including removing the old damaged/broken glass including fixing with lamination sheet as per site requirements including required fittings and fixtures, filling the gaps with silicon sealant etc all complete as directed by Engineer In-charge. | 20.00 | 9,167.00 | Sqm | 1,83,340.00 |
| 13.91 | Providing, supplying and fixing new 12 mm thick Toughened glass in facade/ other location of any building at any height including removing the old damaged/broken glass including fixing with lamination sheet as per site requirements including required fittings and fixtures, filling the gaps with silicon sealant etc all complete as directed by Engineer In-charge. | 20.00 | 10,662.00 | Sqm | 2,13,240.00 |
| 13.92 | Providing, supplying and fixing new (10+10)mm thick doubled clear Toughened glass in facade/ other location of any building at any height including removing the old damaged/broken glass including fixing with lamination sheet as per site requirements between two (10+10)mm thick doubled glass including required fittings and fixtures, filling the gaps with silicon sealant etc all complete as directed by Engineer Incharge. (Double glass of (10+10)mm will be considered as one Sqm area for payment) | 20.00 | 15,837.00 | Sqm | 3,16,740.00 |
| 13.93 | Providing, supplying and fixing new (8+8)mm thick doubled clear Toughened glass in facade/ other location of any building at any height including removing the old damaged/broken glass including fixing with lamination sheet as per site requirements between two (8+8)mm thick doubled glass including required fittings and fixtures, filling the gaps with silicon sealant etc all complete as directed by Engineer Incharge. (Double glass of (8+8)mm will be considered as one Sqm area for payment) | 20.00 | 12,387.00 | Sqm | 2,47,740.00 |
| 13.94 | Providing, supplying and fixing new (5+5)mm thick doubled clear Toughened glass in facade/ other location of any building at any height including removing the old damaged/broken glass including fixing with lamination sheet as per site requirements between two (5+5)mm thick doubled glass including required fittings and fixtures, filling the gaps with silicon sealant etc all complete as directed by Engineer Incharge. (Double glass of (5+5)mm will be considered as one Sqm area for payment) | 20.00 | 8,247.00 | Sqm | 1,64,940.00 |
| 13.95 | Providing and fixing heavy duty floor Spring with top pivot of hardwyn /Hyper make as per existing size and design with necessary fittings and fixtures including removing of old damaged floor springs etc all complete as directed by Engineer In-charge. | 10.00 | 4,787.00 | Sqm | 47,870.00 |
| 13.96 | Providing and fixing stainless steel (S.S.) curtain rod to windows as per approved pattern including necessary fittings and fixtures, transporation and working platform/stepladder wherever required etc. all complete as directed by Engineer In-Charge. | 100.00 | 144.00 | Rmt | 14,400.00 |
| 13.97 | Providing and fixing sockets compatible with curtain rods for windows as per requirement & approved pattern including necessary fittings and fixtures, wall plugs, screws, transporation and working platform/stepladder wherever required etc. all complete as directed by Engineer In-Charge. | 200.00 | 88.00 | Nos | 17,600.00 |
| 13.98 | Providing and fixing aluminum curtain track with end caps to windows with necessary wall brackets, runners & stainless steel hooks as per approved pattern including necessary fittings and fixtures, transporation and working platform/stepladder wherever required etc. all complete as directed by Engineer In-Charge. | 200.00 | 488.00 | Rmt | 97,600.00 |
| 13.99 | Providing and fixing heavy duty panic bar with required fittings as per existing size, design and approved make with necessary fittings and fixtures including etc all complete as directed by Engineer In-charge. | 10.00 | 5,732.00 | Nos | 57,320.00 |
| 13.100 | Providing and applying Silicone sealants of 3M India Pvt. Ltd. brand around window frames / window frame joints and drilling holes for water outlet when the rain water on the glass fall into the channel and overflows wherever required including necessary etc. all complete as directed by Engineer In-charge. | 1,500.00 | 112.00 | Rmt | 1,68,000.00 |
| 13.101 | Providing and fixing steel (powder coated) crescent lock for windows/ doors with necessary screws etc. all complete as directed by Engineer In-charge. | 50.00 | 162.35 | Nos | 8,117.50 |
| | | | | Total 13 | 85,28,120.10 |
| 14 | Sanitary works | | | | |
| 14.01 | Providing and fixing CP Bib Tap with wall flange (CON-CHR-047KN) 15mm size, jaquar make heavy type including necessary fittings and fixtures etc. all complete as directed by Engineer In-Charge. | 50.00 | 1,420.00 | Nos | 71,000.00 |
| 14.02 | Providing and fixing CP Bib Tap with wall flange 15mm size, heavy type, weight not less than 400gm of approved make & model including necessary fittings and fixtures etc. all complete as directed by Engineer In-Charge. | 50.00 | 644.00 | Nos | 32,200.00 |

| | | | | | |
|-------|---|-------|----------|-----|-------------|
| 14.03 | Providing and fixing CP long body bib cock (CON-CHR-107KN) 15 mm size, jaquar make with wall flange 15mm size, heavy type including necessary fittings and fixtures etc. all complete as directed by Engineer In-Charge. | 20.00 | 1,967.00 | Nos | 39,340.00 |
| 14.04 | Providing and fixing CP long body bib cock 15 mm size of approved make and model with wall flange 15mm size, heavy type, weight not less than 690gm including necessary fittings and fixtures etc. all complete as directed by Engineer In-Charge. | 20.00 | 772.00 | Nos | 15,440.00 |
| 14.05 | Providing and fixing CP Two way Bib tap with wall flange (CON-CHR-041KN) 15mm size, jaquar make heavy type including necessary fittings and fixtures etc. all complete as directed by Engineer In-Charge. | 50.00 | 1,650.00 | Nos | 82,500.00 |
| 14.06 | Providing and fixing CP Two way Bib tap with wall flange 15mm size, heavy type, weight not less than 400gm including necessary fittings and fixtures etc. all complete as directed by Engineer In-Charge. | 50.00 | 973.00 | Nos | 48,650.00 |
| 14.07 | Providing & fixing C. P. Pillar tap with aerator of long neck (CON-CHR-021KN) 15 mm size, jaquar make heavy type including necessary fittings and fixtures etc. all complete as directed by Engineer In-Charge. | 50.00 | 2,082.00 | Nos | 1,04,100.00 |
| 14.08 | Providing & fixing swan neck C. P. Pillar tap with aerator of 15 mm size, jaquar make heavy type including necessary fittings and fixtures etc. all complete as directed by Engineer In-Charge. | 50.00 | 1,875.00 | Nos | 93,750.00 |
| 14.09 | Providing & fixing C. P. Pillar tap 15 mm size, heavy type, weight not less than 400gm including necessary fittings and fixtures etc. all complete as directed by Engineer In-Charge. | 50.00 | 759.00 | Nos | 37,950.00 |
| 14.10 | Providing and fixing CP pressmatic aerator pillar tap of auto closing system , jaquar make (PRS-CHR-031) 15mm nominal bore with a self mechanism & water saving type for wash basin including necessary fittings & fixtures tc. all complete as directed by Engineer In-Charge. | 50.00 | 3,002.00 | Nos | 1,50,100.00 |
| 14.11 | Providing and fixing CP pressmatic aerator pillar tap of approved model & approved make 15mm nominal bore with a self mechanism & water saving type for wash basin including necessary fittings & fixtures etc. all complete as directed by Engineer In-Charge. | 50.00 | 1,047.00 | Nos | 52,350.00 |
| 14.12 | Providing and fixing CP stop cock (ALD-CHR-083FT) 15mm size, jaquar make heavy type, including exposed part kit of Stop Cock (CON-CHR-083FTK), jaquar make with necessary fittings and fixtures etc. all complete as directed by Engineer In-Charge. | 50.00 | 1,834.00 | Nos | 91,700.00 |
| 14.13 | Providing and fixing CP stop cock 15mm size, heavy type, weight not less than 400gm with necessary fittings and fixtures etc. all complete as directed by Engineer In-Charge. | 50.00 | 603.00 | Nos | 30,150.00 |
| 14.14 | Providing and fixing CP angular stop cock with wall flange (FLR-CHR-5053N) 15mm size, Jaquar make heavy type including necessary fittings and fixtures etc. all complete as directed by Engineer In-Charge. | 50.00 | 1,564.00 | Nos | 78,200.00 |
| 14.15 | Providing and fixing CP angular stop cock with wall flange 15mm size, of approved make, heavy type, weight not less than 400gm including necessary fittings and fixtures etc. all complete as directed by Engineer In-Charge. | 50.00 | 334.00 | Nos | 16,700.00 |
| 14.16 | Providing & fixing ISI approved heavy type Angle Cock (Cavier make Rienza series) including extension Pipe, C.P Double nippal and removing old fittings (if any) depositing it in Estate store etc. all complete as directed by Engineer In-Charge. | 50.00 | 1,340.00 | Nos | 67,000.00 |
| 14.17 | Providing and fixing push cock / urinal valve auto closing system with built-in control cock & wall flange, (PRS-CHR-077), jaquar make including necessary fittings etc. all complete as directed by Engineer In-Charge. | 50.00 | 3,059.00 | Nos | 1,52,950.00 |
| 14.18 | Providing and fixing push cock of approved make including necessary fittings etc. all complete as directed by Engineer In-Charge. | 50.00 | 702.00 | Nos | 35,100.00 |
| 14.19 | Providing and fixing CP Sink Cock with Raised 'J' Shaped Swinging Spout Wall Mounted Model (CON-CHR-357KN) of jaquar make including all necessary fitting & fixture and removing old fittings (if any) depositing it in Estate store etc. all complete as directed by Engineer In-Charge. | 10.00 | 2,685.00 | Nos | 26,850.00 |
| 14.20 | Providing and fixing CP waste coupling (ALD-CHR-705L130) jaquar make, 32 mm size full thread with 130mm height for wash basin and sink etc. all complete as directed by Engineer In-Charge. | 50.00 | 845.00 | Nos | 42,250.00 |
| 14.21 | Providing and fixing CP waste coupling (ALD-CHR-705) jaquar make, 32 mm size full thread with 80mm height for wash basin and sink etc. all complete as directed by Engineer In-Charge. | 50.00 | 759.00 | Nos | 37,950.00 |
| 14.22 | Providing and fixing chromium plated stainless steel towel rail (ACN-CHR-1111SM) jaquar make, 600mm long with all necessary screws etc. all complete as directed by Engineer In-Charge. | 20.00 | 1,921.00 | Nos | 38,420.00 |

| | | | | | |
|-------|--|--------|----------|-----|-------------|
| 14.23 | Providing and fixing chromium plated towel rod 20 mm dia and 60 cm. in length with proper allignment, level including all necessary accessories etc. all complete as directed by Engineer In-Charge. | 100.00 | 483.00 | Nos | 48,300.00 |
| 14.24 | Providing and fixing chromium plated towel rod 20 mm dia and 75 cm. in length with proper allignment, level including all necessary accessories etc. all complete as directed by Engineer In-Charge. | 20.00 | 506.00 | Nos | 10,120.00 |
| 14.25 | Providing and fixing CP brass extension nipple 15 mm x 50mm weighing of approved make including necessary fittings and fixtures etc. all complete as directed by Engineer In-Charge. | 20.00 | 80.00 | Nos | 1,600.00 |
| 14.26 | Providing and fixing 15mm G.I. Union in existing G.I. pipe line, cutting and threading the pipe and making long screws including sockets, screws , sealing material etc. all complete as directed by Engineer In-Charge. | 20.00 | 188.00 | Nos | 3,760.00 |
| 14.27 | Providing and fixing 150 mm dia rotating type brass shower rose of 15mm dia including necessary bend and socket etc. all complete as directed by Engineer In-Charge. | 50.00 | 713.00 | Nos | 35,650.00 |
| 14.28 | Providing and fixing 100 mm dia rotating type brass shower rose of 15mm dia including necessary bend and socket etc. all complete as directed by Engineer In-Charge. | 100.00 | 598.00 | Nos | 59,800.00 |
| 14.29 | Providing and fixing 100 mm dia overhead shower (OHS-CHR-1661) jaquar make with shower arm (SHA-CHR-479L300S) 20mm dia & 300mm long with 90 degree bend for wall etc. all complete as directed by Engineer In-Charge. | 50.00 | 2,743.00 | Nos | 1,37,150.00 |
| 14.30 | Providing and fixing 75 mm dia rotating type brass shower rose of 15mm dia including necessary bend and socket etc. all complete as directed by Engineer In-Charge. | 100.00 | 541.00 | Nos | 54,100.00 |
| 14.31 | Providing and fixing 50 mm dia rotating type brass shower rose of 15mm dia including necessary bend and socket etc. all complete as directed by Engineer In-Charge. | 100.00 | 483.00 | Nos | 48,300.00 |
| 14.32 | Providing and fixing heavy duty SS jet spray of approved brand with necessary pipe and brass chromium plated sprayers for western & indian type water closets etc. all complete as directed by Engineer In-Charge. | 200.00 | 817.00 | Nos | 1,63,400.00 |
| 14.33 | Providing and fixing Jet spray/Hand Shower (ALD-CHR-563) jaquar make, 1m long PVC tube & wall hook for western & indian type water closets etc. all complete as directed by Engineer In-Charge. | 100.00 | 1,449.00 | Nos | 1,44,900.00 |
| 14.34 | Providing and fixing Jet spray/Hand Shower with ABS Body (ALD-CHR-587) jaquar make, with 8mm dia & 1.20m long spirochrome flex tube & wall hook for western & indian type water closets etc. all complete as directed by Engineer In-Charge. | 100.00 | 1,392.00 | Nos | 1,39,200.00 |
| 14.35 | Providing and fixing 8 mm dia C.P. / S.S. Jet with flexible tube upto 1 metre long with S.S. triangular plate to European type W.C. of quality etc. all complete as directed by Engineer In-Charge. | 100.00 | 300.37 | Nos | 30,037.00 |
| 14.36 | Providing and fixing wash basin size 55 x 40cm of white glazed earthenware pan of parryware Havana / Johnson (IITB approved brand) with PVC connection and necessary fittings and fixtures etc. all complete as directed by Engineer In-Charge. | 50.00 | 2,956.00 | Nos | 1,47,800.00 |
| 14.37 | Providing and fixing white glazed earthenware wash hand basin of 55cm x 40cm size including one cold water pillar tap of jaquar make, brackets, rubber plugs and brass chain, stop tap of jaquar make and necessary pipe connection including PVC pipe upto trap etc. all complete as directed by Engineer In-Charge. | 50.00 | 5,109.00 | Nos | 2,55,450.00 |
| 14.38 | Providing & fixing Cera make Platform top wash hand basin of size 602mm x 433mm including vertical pillar cock, stop cock, waste coupling, Waste Pipe, Connection Pipe, etc. all complete as directed by Engineer In-Charge. | 20.00 | 9,430.00 | Nos | 1,88,600.00 |
| 14.39 | Providing & fixing below counter wash hand basin of size 550mm x 445mm, IITB approved brand) including one cold water pillar tap of jaquar make , brackets, rubber plugs and brass chain, stop tap of jaquar make and necessary pipe connection including PVC pipe upto trap etc. all complete as directed by Engineer In-Charge. | 50.00 | 5,224.00 | Nos | 2,61,200.00 |
| 14.40 | Providing and fixing white vitreous china flat back half stall urinal size 500mm X 290mm X 250mm of approved model including necessary fittings and fixtures such as L shaped hooks, S.S spreader and 40/50mm dia P.V.C outlet pipe with C.P waste-coupling etc. all complete as directed by Engineer In-Charge. | 100.00 | 5,096.00 | Nos | 5,09,600.00 |
| 14.41 | Providing and fixing European type wall mounted white glazed earthenware water closet pan of approved model including cast iron soil and vent pipes upto the outside face of wall, 10 litres approved low level PVC flushing tank with all fittings and stop tap, brackets for fixing the low level flushing cistern, 32mm dia PVC heavy type flush pipe with fittings and clamps, cutting and making good walls and floors etc. all complete as directed by Engineer In-Charge. | 50.00 | 8,456.00 | Nos | 4,22,800.00 |

| | | | | | |
|-------|--|--------|-----------|-----|-------------|
| 14.42 | Providing and fixing white vitreous china extended wall mounting water closet of size 780x370x690 mm of approved model including providing & fixing white vitreous china cistern with dual flush fitting, of flushing capacity 3 litre/ 6 litre (adjustable to 4 litre/ 8 litres), including seat cover, and cistern fittings, nuts, bolts and gasket etc. all complete as directed by Engineer In-Charge. | 20.00 | 13,080.78 | Nos | 2,61,615.60 |
| 14.43 | Providing and fixing white vitreous china pedestal type water closet (European type) of approved model with ISI marked solid plastic seat and lid, 10 liter low level white P.V.C. flushing cistern & C.P. flush bend with fittings & C.I. brackets, 40 mm flush bend, overflow arrangement with specials of standard make and mosquito proof coupling of approved municipal design complete, including painting of fittings and brackets, cutting and making good the walls and floors wherever required etc. all complete as directed by Engineer In-Charge. | 20.00 | 5,559.35 | Nos | 1,11,187.00 |
| 14.44 | Providing and fixing Orrisa type white glazed earthenware 580mm x 450mm water closet pan of approved model & colour including trap, cast iron upto the outside face of the wall including 100mm. diameter cast iron pipe / PVC plug bend, cement concrete bedding, 10 litres capacity approved low level PVC flushing tank with fittings, inlet pipe with stop tap, brackets, 32mm. diameter PVC flush pipe with fittings and clamps, making good the walls and floorsetc. all complete as directed by Engineer In-Charge. . (excluding waterproof brick bat coba) | 50.00 | 5,800.97 | Nos | 2,90,048.50 |
| 14.45 | Providing and fixing white wall hung with cistern closet of approved model with UF Soft close Seat & Cover wall hung fittings and other required fittings, cutting and making good walls and floors etc. all complete as directed by Engineer In-Charge. | 20.00 | 15,915.00 | Nos | 3,18,300.00 |
| 14.46 | Providing and fixing Concealed Flush tank with kit of parryware make, as per existing model, including necessary fittings and fixtures, & removing old fittings (if any) depositing it in Estate store etc. all complete as directed by Engineer In-Charge. | 20.00 | 4,751.00 | Nos | 95,020.00 |
| 14.47 | Providing and fixing white color Low level 10 liters capacity PVC Dual flushing cistern with all fittings of approved model & inlet G.I. pipe with stop tap, brass chromium plated waste coupling and providing and fixing 32mm or required heavy duty PVC outlet bend pipe from flushing cistern upto the pan, 12mm dia PVC connection to the tank etc. all complete as directed by Engineer In-Charge. | 50.00 | 2,432.00 | Nos | 1,21,600.00 |
| 14.48 | Providing and fixing PVC low/high level flushing cistern with all fittings as approved by IITB inlet G.I. pipe with stop tap, providing and fixing 32mm or required heavy duty PVC outlet bend pipe from flushing cistern upto the w.c. pan, 15mm dia PVC connection to the tank etc. all complete as directed by Engineer In-Charge. | 100.00 | 1,409.00 | Nos | 1,40,900.00 |
| 14.49 | Providing and fixing approved high quality seat cover compatible with the existing European type Water closets including all necessary fittings & fixtures and removing old seat covers (if any) depositing it in Estate store etc. all complete as directed by Engineer In-Charge. | 100.00 | 868.00 | Nos | 86,800.00 |
| 14.50 | Providing & fixing 600mm length and 15mm dia PVC Connector pipe for WC flush tank etc. all complete as directed by Engineer In-Charge. | 100.00 | 180.00 | Nos | 18,000.00 |
| 14.51 | Providing and fixing CP Brass 32mm size Bottle Trap of approved make in proper alignment with washbasin outlet, leak proof joints including with all necessary washers etc. all complete as directed by Engineer In-Charge. | 50.00 | 1,503.00 | Nos | 75,150.00 |
| 14.52 | Providing and fixing bottle trap(ALD-CHR-769L250X190), jaquar make, 32mm size with 250mm & 190mm long wall connection pipes & wall flange & in proper alignment with washbasin outlet, leak proof joints including with all necessary washers etc. all complete as directed by Engineer In-Charge. | 50.00 | 2,254.00 | Nos | 1,12,700.00 |
| 14.53 | Providing and fixing bottle trap(ALD-CHR-769L300x190), jaquar make, 32mm size with 300mm & 190mm long wall connection pipes & wall flange & in proper alignment with washbasin outlet, leak proof joints including with all necessary washers etc. all complete as directed by Engineer In-Charge. | 50.00 | 2,369.00 | Nos | 1,18,450.00 |
| 14.54 | Providing and fixing high quality stainless steel 304 grade soap dish with necessary fittings, screws, brackets etc. all complete as directed by Engineer In-Charge. | 20.00 | 285.00 | Nos | 5,700.00 |
| 14.55 | Providing and fixing Premium Soap Dish Holder of jaquar make, as per existing model, heavy type including necessary fittings and fixtures, removing the old damaged soap dish holder and cleaning the site etc. all complete as directed by Engineer In-Charge. | 20.00 | 1,061.00 | Nos | 21,220.00 |
| 14.56 | Providing and fixing Premium toilet paper holder of jaquar make (CPA-CHR-1153), heavy type including necessary fittings and fixtures, removing the old damaged soap dish holder and cleaning the site etc. all complete as directed by Engineer In-Charge. | 20.00 | 1,608.00 | Nos | 32,160.00 |

| | | | | | |
|-------|--|--------|-----------|---------|-------------|
| 14.57 | Providing and fixing 600x120x5 mm glass shelf with edges round off, supported on anodised aluminium angle frame with C.P. brass brackets and guard rail complete fixed with 40 mm long screws, rawl plugs etc. all complete as directed by Engineer In-Charge. | 50.00 | 945.35 | Nos | 47,267.50 |
| 14.58 | Providing and fixing Stainless Steel A ISI 304 (18/8) kitchen sink with drain board of size 510x1040 mm bowl depth 250 mm with C.I. brackets and stainless steel plug 40 mm, including painting of fittings and brackets, cutting and making good the walls wherever required etc. all complete as directed by Engineer In-Charge. | 5.00 | 6,028.84 | Nos | 30,144.20 |
| 14.59 | Providing and fixing Stainless Steel A ISI 304 (18/8) kitchen sink without drain board of size 610x510 mm bowl depth 200 mm with C.I. brackets and stainless steel plug 40 mm, including painting of fittings and brackets, cutting and making good the walls wherever required etc. all complete as directed by Engineer In-Charge. | 5.00 | 4,288.90 | Nos | 21,444.50 |
| 14.60 | Providing and fixing stainless steel sink having bowl size 610 x460x254mm of nirali make inside platform or on brackets including UPVC waste coupling pipe up to outlet pipe, steel waste coupling etc. all complete as directed by Engineer In-Charge. | 5.00 | 10,311.00 | Nos | 51,555.00 |
| 14.61 | Providing and fixing stainless steel sink having bowl size 560 x410x254mm of nirali make inside platform or on brackets including UPVC waste coupling pipe upto outlet pipe, steel waste coupling etc. all complete as directed by Engineer In-Charge. | 5.00 | 8,545.00 | Nos | 42,725.00 |
| 14.62 | Providing and fixing stainless steel sink having bowl size 410 x355x165mm of nirali make inside platform or on brackets including UPVC waste coupling pipe upto outlet pipe, steel waste coupling etc all complete as directed by Engineer In-Charge. | 5.00 | 5,459.00 | Nos | 27,295.00 |
| 14.63 | Providing and fixing 75mm dia P.V.C. nahani trap fixed with S.S grating and rim, P.V.C. plug bend and piece of P.V.C. pipe upto plug bend etc. all complete as directed by Engineer In-Charge. | 100.00 | 391.00 | Nos | 39,100.00 |
| 14.64 | Providing and fixing 75mm S.S. nahani trap fixed with S.S grating and rim, P.V.C. plug bend and piece of P.V.C. pipe upto plug bend etc. all complete as directed by Engineer In-Charge. | 10.00 | 2,401.00 | Nos | 24,010.00 |
| 14.65 | Providing and fixing 10cm cast iron nahani trap with cast iron plug bend and piece of cast iron pipe upto plug bend etc. all complete as directed by Engineer In-Charge. | 50.00 | 1,020.00 | Nos | 51,000.00 |
| 14.66 | Providing and fixing 15cm x10cm Salt Glazed Stoneware Gully Trap in cement concrete 1:1.5:3 outside the building including connecting to PVC waste water pipe ,brick masonry chamber with cast iron lid grating for the gully trap etc. all complete as directed by Engineer In-Charge. | 50.00 | 2,482.80 | Nos | 1,24,140.00 |
| 14.67 | Providing and fixing stainless steel 304 grade cockroach trap of approved pattern, quality and make with all required fittings and fixtures etc. all complete as directed by Engineer In-Charge. | 200.00 | 437.00 | Nos | 87,400.00 |
| 14.68 | Providing and fixing 50mm dia HDPE pipes manufactured by NOCIL / PIL with wall thickness of 2.60 mm to 10.00mm for taking drain water with all required fittings such as bend, tee, elbows etc. with proper line and gradient connecting all joints with fusion butt welding by using hot plate, keeping hole in wall / pardi etc. filling the patches, with cement concrete 1:1½:3, clamping the pipes on wall / column etc., testing the line, providing inspection joints with and caps etc. all complete as directed by Engineer In-Charge. | 50.00 | 516.00 | Rmt | 25,800.00 |
| 14.69 | Providing and fixing ISI approved 75mm dia. HDPE pipes manufactured by NOCIL / PIL of various diameters with wall thickness of 2.60 mm to 10.00mm for taking drain water with all required fittings such as bend, tee, elbows etc. with proper line and gradient connecting all joints with fusion butt welding by using hot plate, keeping hole in wall / pardi etc. filling the patches, with cement concrete 1:1½:3, clamping the pipes on wall / column etc., testing the line, providing inspection joints with and caps etc. all complete as directed by Engineer In-Charge. | 50.00 | 552.00 | Rmt | 27,600.00 |
| 14.70 | Arresting leakage through HDPE pipe by welding/jointing the damaged member with required tools and tackles etc. all complete as directed by Engineer In-Charge. | 10.00 | 182.00 | per job | 1,820.00 |
| 14.71 | Making connection / disconnection of G. I. Distribution branch with G. I. Main of following 25 to 40 mm nominal bore sizes by providing and fixing tee, including cutting and threading the pipe etc. all complete as directed by Engineer In-Charge. | 10.00 | 759.67 | No. | 7,596.70 |
| 14.72 | Making connection / disconnection of G. I. Distribution branch with G. I. Main of following 50 to 80 mm nominal bore sizes by providing and fixing tee, including cutting and threading the pipe etc. all complete as directed by Engineer In-Charge. | 10.00 | 1,518.84 | No. | 15,188.40 |

| | | | | | |
|-------|--|--------|----------|-----|-------------|
| 14.73 | Providing and fixing ISI 1729/2002 grade 75mm dia. cast iron waste water pipes with necessary fittings such as bends, tees, single junctions, double junctions, slotted vent, offsets on walls or in the ground including filling joints with cement mortar 1:2 and two coats of anticorrosive paint including fixing the pipe on walls by means of nails driven through lugs in wooden holders / battens including necessary working platform etc. all complete as directed by Engineer In-Charge. | 100.00 | 1,171.00 | Rmt | 1,17,100.00 |
| 14.74 | Providing and fixing ISI 1729/2002 grade 100mm dia. cast iron soil / waste water pipe with necessary fittings such as bends, tees, single junctions, double junctions, slotted vent, offsets on walls or in the ground including filling joints with cement mortar 1:2 and two coats of anticorrosive paint including fixing the pipe on walls by means of nails driven through lugs in wooden holders / battens including necessary working platform etc. all complete as directed by Engineer In-Charge. | 100.00 | 1,764.00 | Rmt | 1,76,400.00 |
| 14.75 | Providing and laying 160mm dia. P.V.C. pipes conforming to I.S. in trenches including proper slope, filling the joints using rubber gasket with solvent cement etc. all complete as directed by Engineer In-Charge. | 100.00 | 759.00 | Rmt | 75,900.00 |
| 14.76 | Providing and laying 110mm dia. P.V.C. pipes conforming to I.S. in trenches including proper slope, filling the joints using rubber gasket with solvent cement etc. all complete as directed by Engineer In-Charge. | 150.00 | 439.00 | Rmt | 65,850.00 |
| 14.77 | Providing and laying 75mm dia. P.V.C. pipes conforming to I.S. in trenches including proper slope, filling the joints using rubber gasket with solvent cement etc. all complete as directed by Engineer In-Charge. | 150.00 | 334.00 | Rmt | 50,100.00 |
| 14.78 | Providing and laying 50mm dia. P.V.C. pipes conforming to I.S. in trenches including proper slope, filling the joints using rubber gasket with solvent cement etc. all complete as directed by Engineer In-Charge. | 150.00 | 284.00 | Rmt | 42,600.00 |
| 14.79 | Providing and laying 40mm dia. P.V.C. pipes conforming to I.S. in trenches including proper slope, filling the joints using rubber gasket with solvent cement etc. all complete as directed by Engineer In-Charge. | 50.00 | 247.00 | Rmt | 12,350.00 |
| 14.80 | Providing and fixing P.V.C. soil / waste water pipes 40mm inner dia. Including with P.V.C. plug bend, necessary fittings such as offsets including fixing the pipe on wall using approved M.S cleats projecting 25mm to 40mm from face of wall and fixing with clips of approved quality and number, filling the joints using rubber gasket with solvent cement including necessary working platform. etc. all complete as directed by Engineer In-charge. (Make-Finolex/Kissan/Prince) | 50.00 | 340.00 | Rmt | 17,000.00 |
| 14.81 | Providing and fixing P.V.C. soil / waste water pipes 50mm inner dia. Including with P.V.C. plug bend, necessary fittings such as offsets including fixing the pipe on wall using approved M.S cleats projecting 25mm to 40mm from face of wall and fixing with clips of approved quality and number, filling the joints using rubber gasket with solvent cement including necessary working platform. etc. all complete as directed by Engineer In-charge. (Make-Finolex/Kissan/Prince) | 50.00 | 407.00 | Rmt | 20,350.00 |
| 14.82 | Providing and fixing P.V.C. soil / waste water pipes 75mm inner dia. And having wall thickness of 2 to 3.2 mm including with P.V.C. plug bend, necessary fittings such as offsets including fixing the pipe on wall using approved M.S cleats projecting 25mm to 40mm from face of wall and fixing with clips of approved quality and number, filling the joints using rubber gasket with solvent cement including necessary working platform. etc. all complete as directed by Engineer In-charge. (Make-Finolex/Kissan/Prince) | 50.00 | 532.00 | Rmt | 26,600.00 |
| 14.83 | Providing and fixing P.V.C. soil / waste water pipes 110mm outer dia. Including with P.V.C. plug bend, necessary fittings such as offsets including fixing the pipe on wall using M.S cleats projecting 25mm to 40mm from face of wall and fixing with clips of approved quality and number, filling the joints with PVC solvent including necessary working platform, etc. all complete as directed by Engineer In-charge. (Make-Finolex/Kissan/Prince) | 50.00 | 796.00 | Rmt | 39,800.00 |
| 14.84 | Providing and fixing P.V.C. rain water pipes 160mm outer dia. conforming to I.S. including proper rain water receiving recess with P.V.C. plug bend, necessary fittings such as offsets, shoes including fixing the pipe on wall using approved M.S brackets projecting 25mm to 40mm from face of wall , filling the joints using rubber gasket with solvent cement and properly resting the shoe of pipes on C.C. or masonry blocks, including necessary working platform, and maintenance for 3 years for any type of leakages or dislocation of pipes. All the PVC fittings and additional two piece socket clips shall be got approved from Engineer In-charge etc. all complete as directed by Engineer In-Charge. (Make-Finolex/Kissan/Prince) | 50.00 | 929.00 | Rmt | 46,450.00 |

| | | | | | |
|-----------|--|-----------|-----------|-----------------|---------------------|
| 14.85 | Disconnecting damaged overhead/terrace PVC water storage tank of any size from water supply line and removing from the roof of the building carefully with out damaging any structural members of the building by using chainpulley arrangement and taking outside IIT campus etc. all complete as directed by Engineer In-Charge. (5% recovery for scrap material will be deducted for this item) | 10,000.00 | 1.00 | per litre | 10,000.00 |
| 14.86 | Providing hoisting and fixing in position ISI mark plastic storage water tank of BMC approved plastic (Syntex/ Infra / any approved make) overhead tank on roof of mess/ kitchen/buildings at any height with all fitting & fixtures, fixing the MS ladder with concrete foundation & steel covers with locking arrangement as per BMC approved B.M.C pattern, copper ball float of 1" size, connecting the tank (inlet and outlet) with the existing water line, providing and fixing over flow pipe 25mm dia with mosquito proof brass coupling using required fitting / fixtures etc. all complete as directed by Engineer In-Charge.(The capacity of tanks will be of 1000/2000/5000L) | 10,000.00 | 14.00 | per litre | 1,40,000.00 |
| 14.87 | Providing & fixing C. P. Three way taps heavy type, weight not less than 400gm including necessary fittings and fixtures etc. all complete as directed by Engineer In-Charge. | 5.00 | 1,682.00 | Nos | 8,410.00 |
| 14.88 | Providing and fixing Towel Rack 600mm Long with Lower Hangers, Stainless Steel of Jaquar make, heavy type including necessary fittings and fixtures etc. all complete as directed by Engineer In-charge. | 10.00 | 3,160.00 | Nos | 31,600.00 |
| 14.89 | Providing and fixing Towel ring, Stainless Steel of Jaquar make, heavy type including necessary fittings and fixtures etc. all complete as directed by Engineer In-charge. | 10.00 | 1,320.00 | Nos | 13,200.00 |
| 14.90 | Providing and fixing urinal sensor flush valve electrically or battery operated of Askon, hindware, Kohler, Jaguar make including making cut out in walls and concealed outlet pipe up to the urinal pot with all required fittings and fixtures etc. completed as directed by Engineer In-charge. | 10.00 | 11,411.00 | Nos | 1,14,110.00 |
| 14.91 | Providing and fixing 12mm thick frosted toughen glass or FRP partition of greenlam for urinal partition including making edge molding and polishing, fixing the glass over D type stainless steel hooks of approved quality, making necessary holes in glass etc. completed as directed by Engineer In-charge. | 10.00 | 5,622.00 | Nos | 56,220.00 |
| 14.92 | Providing and fixing white vitreous china flat back half stall urinal of hindware, Kohler, Jaguar make with sensor system including necessary fittings and fixtures such as L shaped hooks, S.S spreader and 40/50mm dia P.V.C outlet pipe with C.P waste-coupling including making cut out in walls and concealed outlet pipe up to the urinal pot with all required fittings and fixtures etc. all complete as directed by Engineer In-Charge. | 10.00 | 28,803.00 | Nos | 2,88,030.00 |
| 14.93 | Providing and fixing white color Low level 3/6 liters capacity PVC Dual flushing cistern parryware / hindware / cera make with all fittings as approved by IITB inlet G.I. pipe with stop tap, brass chromium plated waste coupling and providing and fixing 32mm or required heavy duty PVC outlet bend pipe from flushing cistern upto the pan, 12mm dia PVC connection to the tank etc. all complete as directed by Engineer In-Charge. | 50.00 | 2,992.00 | Nos | 1,49,600.00 |
| 14.94 | Providing and fixing ISI approved wall mixture (Jaquar/Hindware) system as per existing model including all fitting and fixtures etc. all complete as directed by Engineer In-Charge. | 50.00 | 6,440.00 | Nos | 3,22,000.00 |
| 14.95 | Providing & fixing granite counter wash basin of size upto 900 X 450 for counter including coloured oval shape wash basin of size 22" x 16" with Jaquar make Pillar tap, CP bottle trap, connector, angle cock complete including kaddpa supports, moulding, fascia patti etc. all complete as directed by Engineer In-Charge. | 5.00 | 20,676.00 | Nos | 1,03,380.00 |
| | | | | Total 14 | 83,66,404.40 |
| 15 | Drainage works | | | | |
| 15.01 | Providing and fixing 560mm dia. Medium duty ductile iron manhole covers with frame for inspection chamber / manhole / gulley trap and other required places manufactured by M/s.NECO or approved make etc all complete as directed by Engineer In-charge. | 10.00 | 10,027.00 | Nos | 1,00,270.00 |
| 15.02 | Providing and fixing 560mm dia. Heavy duty ductile iron manhole covers with frame for inspection chamber / manhole / gulley trap and other required places manufactured by M/s.NECO or approved make etc all complete as directed by Engineer In-charge. | 20.00 | 11,214.00 | Nos | 2,24,280.00 |
| 15.03 | Providing and fixing in position pre-cast R.C.C. heavy duty -20T manhole cover and frame of IITB approved make of Circular shape 560 mm internal diameter including transport, lead and lift etc all complete as directed by Engineer In-charge. | 20.00 | 1,499.27 | Nos | 29,985.40 |

| | | | | | |
|-------|---|-------|-----------|-----|-------------|
| 15.04 | Providing and fixing 600mm x 450mm rectangular medium duty ductile iron manhole covers with frame for inspection chamber / manhole / gulley trap and other required places of NECO or approved make etc all complete as directed by Engineer In-charge. | 10.00 | 13,257.00 | Nos | 1,32,570.00 |
| 15.05 | Providing and fixing 600mm x 450mm rectangular heavy duty ductile iron manhole covers with frame for inspection chamber / manhole / gulley trap and other required places of NECO or approved make etc all complete as directed by Engineer In-charge. | 20.00 | 11,814.00 | Nos | 2,36,280.00 |
| 15.06 | Providing and fixing 900mm x 450mm rectangular medium duty ductile iron manhole covers with frame for inspection chamber / manhole / gulley trap and other required places of NECO or approved make etc all complete as directed by Engineer In-charge. | 10.00 | 13,786.00 | Nos | 1,37,860.00 |
| 15.07 | Providing and fixing 900mm x 450mm rectangular heavy duty ductile iron manhole covers with frame for inspection chamber / manhole / gulley trap and other required places of NECO or approved make etc all complete as directed by Engineer In-charge. | 30.00 | 16,351.00 | Nos | 4,90,530.00 |
| 15.08 | Providing and fixing 900mm x 600mm rectangular medium duty ductile iron manhole covers with frame for inspection chamber / manhole / gulley trap and other required places of NECO or approved make etc all complete as directed by Engineer In-charge. | 10.00 | 17,156.00 | Nos | 1,71,560.00 |
| 15.09 | Providing and fixing 900mm x 600mm rectangular heavy duty ductile iron manhole covers with frame for inspection chamber / manhole / gulley trap and other required places of NECO or approved make etc all complete as directed by Engineer In-charge. | 10.00 | 21,106.00 | Nos | 2,11,060.00 |
| 15.10 | Providing and fixing precast RCC slab for drain cover and chamber cover of required size with M-25 grade concrete and reinforced with 10mm dia main steel bars (along shorter span) and 8mm. dia distribution bars (along longer span) at 100mm center to center including making steel form work, making temporary concrete platform for casting, compaction using surface vibrator, with two lifting hooks of 6mm dia / holes of 25mm dia finishing the surface with smooth cement finish curing, placing the precast slab in proper position etc all complete as directed by Engineer In-charge. | 5.00 | 21,491.00 | Cum | 1,07,455.00 |
| 15.11 | Providing and fixing FRP inspection chamber cover (heavy duty) with frame of clear opening size not less than 900mm X 600mm, manufactured by KKManholes or approved make including removing the existing damaged cover and taking away the same out of IIT campus and making all necessary arrangements to make the area accessible for work and taking all necessary safety precautions during execution of work etc all complete as directed by Engineer In-charge. | 10.00 | 15,535.00 | Nos | 1,55,350.00 |
| 15.12 | Providing and fixing FRP inspection chamber cover (heavy duty) with frame of clear opening size not less than 600mm X 450mm, manufactured by KK Manholes or approved make including removing the existing damaged cover and taking away the same out of IIT campus and making all necessary arrangements to make the area accessible for work and taking all necessary safety precautions during execution of work etc all complete as directed by Engineer In-charge. | 10.00 | 9,772.00 | Nos | 97,720.00 |
| 15.13 | Providing and fixing FRP inspection chamber cover (heavy duty) with frame of clear opening size not less than 900mm X 450mm, manufactured by K.K.Manholes or approved make including removing the existing damaged cover and taking away the same out of IIT campus and making all necessary arrangements to make the area accessible for work and taking all necessary safety precautions during execution of work etc all complete as directed by Engineer In-charge. | 10.00 | 12,992.00 | Nos | 1,29,920.00 |
| 15.14 | Providing and fixing FRP Manhole cover (heavy duty) with frame of clear opening size not less than 22 inches dia., manufactured by K.K.Manholes or approved make including removing the existing damaged cover and taking away the same out of IIT campus and making all necessary arrangements to make the area accessible for work and taking all necessary safety precautions during execution of work etc all complete as directed by Engineer In-charge. | 20.00 | 11,204.00 | Nos | 2,24,080.00 |
| 15.15 | Providing and fixing 100mm dia. Salt glazed stoneware pipe including fittings such as bends, tees, single junctions, double junctions, laying, jointing (excluding excavation and refilling the trenches) etc all complete as directed by Engineer In-Charge. | 50.00 | 377.02 | Rmt | 18,851.00 |
| 15.16 | Providing and fixing 150mm dia. Salt glazed stoneware pipe including fittings such as bends, tees, single junctions, double junctions, laying, jointing (excluding excavation and refilling the trenches) etc all complete as directed by Engineer In-Charge. | 50.00 | 593.41 | Rmt | 29,670.50 |

| | | | | | |
|-------|--|--------|-----------|-----|-------------|
| 15.17 | Providing lowering, and laying 150mm dia NP2 class R.C.C. spun pipes conforming to as per relevant IS code of 300 mm dia (n.b) with necessary collars, laid to correct grade, alignment and levels at all depth including cutting to required length, jointing with hemp yarn and cement mortar 1:2 caulking the joints, finishing, curing etc all complete as directed by Engineer In-Charge. | 20.00 | 494.77 | Rmt | 9,895.40 |
| 15.18 | Providing lowering, and laying 300mm dia NP2 class R.C.C. spun pipes conforming to as per relevant IS code of 300 mm dia (n.b) with necessary collars, laid to correct grade, alignment and levels at all depth including cutting to required length, jointing with hemp yarn and cement mortar 1:2 caulking the joints, finishing, curing etc all complete as directed by Engineer In-Charge. | 30.00 | 905.11 | Rmt | 27,153.30 |
| 15.19 | Providing lowering, and laying NP2 class R.C.C. spun pipes conforming to as per relevant IS code of 450 mm dia (n.b) with necessary collars, laid to correct grade, alignment and levels at all depth including cutting to required length, providing and applying a coat of black bituminous paint to inside surface, water tight jointing with hemp yarn and cement mortar 1:1 caulking the joints, finishing, curing, testing the joints hydraulically etc all complete as directed by Engineer In-Charge. | 30.00 | 1,486.58 | Rmt | 44,597.40 |
| 15.20 | Providing lowering, and laying NP2 class R.C.C. spun pipes conforming to as per relevant IS code of 600 mm dia (n.b) with necessary collars, laid to correct grade, alignment and levels at all depth including cutting to required length, providing and applying a coat of black bituminous paint to inside surface, water tight jointing with hemp yarn and cement mortar 1:1 caulking the joints, finishing, curing, testing the joints hydraulically etc. complete as directed by Engineer In-charge. | 20.00 | 2,105.22 | Rmt | 42,104.40 |
| 15.21 | Providing and fixing PE 100 & PN 6 having 100mm(ID) dia. ISI approved HDPE pipes manufactured by ARHAM Engineering/ BERLIA /NOCIL / PIL with wall thickness of 6 mm to 8mm for taking sewage waste water with all required fittings such as bend, elbows etc. with proper line and gradient connecting all joints with fusion butt welding by using suitable welding machine or hot plate, testing the line & joint as per manufacturer specification etc. all complete as directed by Engineer In-charge. | 100.00 | 1,026.00 | Rmt | 1,02,600.00 |
| 15.22 | Providing and fixing PE 100 & PN 6 having 150 mm dia.(ID) ISI approved HDPE pipes ARHAM Engineering/ BERLIA /NOCIL / PIL with wall thickness of 6 mm to 8mm for taking sewage waste water with all required fittings such as bend, elbows etc. with proper line and gradient connecting all joints with fusion butt welding by using suitable welding machine or hot plate, testing the line & joint as per manufacturer specification etc. all complete as directed by Engineer In-charge. | 150.00 | 1,041.00 | Rmt | 1,56,150.00 |
| 15.23 | Providing and fixing PE 100 & PN 6 having 225mm dia.(OD) ISI approved HDPE pipes manufactured by ARHAM Engineering/ BERLIA /NOCIL / PIL with wall thickness of 15mm for drainage pipe line with all required fittings etc. with proper line and gradient connecting all joints with fusion butt welding by using suitable welding machine or hot plate etc, testing the line & joints as per manufacturer specification or as per direction of Engineer In-charge etc. all complete as directed by Engineer In-charge. | 50.00 | 1,810.00 | Rmt | 90,500.00 |
| 15.24 | Providing and fixing PE 100 & PN 6 having 315mm dia.(OD) ISI approved HDPE pipes manufactured by ARHAM Engineering/ BERLIA /NOCIL / PIL with wall thickness of 15mm for drainage pipe line with all required fittings etc. with proper line and gradient connecting all joints with fusion butt welding by using suitable welding machine or hot plate etc, testing the line & joints as per manufacturer specification or as per direction of Engineer In-charge etc. all complete as directed by Engineer In-charge. | 100.00 | 3,135.00 | Rmt | 3,13,500.00 |
| 15.25 | Providing & fixing 75mm dia. PVC temporary drain pipe line with fittings, necessary Coupling, bends, tees by supporting on scaffolding and maintaining the same from time to time till the new permanent drain pipes are laid and connected etc all complete as directed by Engineer-In-charge. | 100.00 | 139.00 | Rmt | 13,900.00 |
| 15.26 | Providing & fixing 100mm dia. PVC temporary drain pipe line with fittings, necessary Coupling, bends, tees by supporting on scaffolding and maintaining the same from time to time till the new permanent drain pipes are laid and connected etc all complete as directed by Engineer-In-charge. | 100.00 | 188.00 | Rmt | 18,800.00 |
| 15.27 | Providing and constructing Brick Masonry Inspection Chamber 90 cm x 45 cm and 90 cm to 150 cm in depth including necessary excavation, cement concrete in M-20 foundation, 23 cm thick channels, brick masonry, plastering from inside and outside as required in cement mortar 1:3 and airtight RCC cover with frame work fixed in cement concrete 1:1.5:3 etc all complete as directed by Engineer In-charge. | 20.00 | 14,968.00 | Nos | 2,99,360.00 |

| | | | | | |
|-----------|--|----------|-----------|-----------------|---------------------|
| 15.28 | Providing and constructing Brick Masonry Inspection Chamber 90 cm x 45 cm and 45 cm to 90 cm in depth including necessary excavation, cement concrete in M-20 foundation, 23 cm thick channels, brick masonry, plastering from inside and outside as required in cement mortar 1:3 and airtight RCC cover with frame work fixed in cement concrete 1:1.5:3 etc all complete as directed by Engineer In-charge. | 20.00 | 10,892.00 | Nos | 2,17,840.00 |
| 15.29 | Constructing conical manhole of size 900mm internal diameter at bottom and 525mm internal diameter at top up to depth 1500 mm with brick masonry circular wall 340mm thick in cement mortar 1:6 over a bed of 230mm thick cement concrete M-20 (1:1½:3) foundation square shape in plan with 150mm minimum offset beyond masonry wall plastering with cement mortar 1:4, 20mm thick on internal, external and all exposed faces, finished with floating coat of neat cement, including necessary cement concrete M-20 (1:1½:3) for forming benching and channel, providing and fixing C.I. steps weighing not less than 3.50 Kg. fixing top one at 450mm from top level and remaining steps at 300mm vertical spacing in staggered fashion, including providing and fixing precast R.C.C. frame and cover of thickness 100/150mm, heavy duty, manufactured by K.K.Manholes or approved make as approved by Engineer Incharge and fixing with cement concrete coping M-20 (1:1½ :3) and plastering complete including necessary dewatering etc.all complete as directed by Engineer In-charge. | 10.00 | 28,159.00 | Nos | 2,81,590.00 |
| 15.30 | Extra for depth beyond 1500mm in cylindrical shape of 900mm diameter with 340mm thick brick masonry wall in cement mortar 1:6 providing and fixing C.I. steps, plastering, finishing, dewatering etc.all complete as directed by Engineer In-charge. | 10.00 | 12,695.00 | Rmt | 1,26,950.00 |
| 15.31 | Constructing conical manhole of size 1500mm internal diameter at bottom and 525mm internal diameter at top in conical shape upto 1500mm depth with brick masonry circular wall 340mm thick and below 1500mm to 1800mm depth in cylindrical shape wall with 450mm thick in cement mortar 1:6 over abed of 230mm thick cement concrete M-20 (1:1½:3) foundation square shape in plan with 150mm minimum offset beyond masonry wall plastering with cement mortar 1:4, 20mm thick on internal, external and all exposed faces, finished with floating coat of neat cement, including necessary cement concrete M-20 (1:1½ :3) for forming benching and channel, providing and fixing C.I. steps weighing not less than 3.50 Kg. fixing top one at 450mm from top level and remaining steps at 300mm vertical spacing in staggered fashion, including providing and fixing precast R.C.C. frame and cover of thickness 100/150mm, heavy duty, manufactured by K.K.Manholes or approved make as approved by Engineer Incharge and fixing with cement concrete coping M-20 (1:1½ :3) and plastering complete including necessary dewatering etc.all complete as directed by Engineer In-charge. for Man holes of depth up to 1800mm. | 10.00 | 48,050.00 | Nos | 4,80,500.00 |
| 15.32 | Extra for depth beyond 1500mm in cylindrical shape of 1500mm diameter with 450mm thick brick masonry wall in cement mortar 1:6 providing and fixing C.I. steps, plastering, finishing, dewatering etc. all complete as directed by Engineer In-charge. | 10.00 | 25,201.00 | Nos | 2,52,010.00 |
| 15.33 | Making necessary connection / disconnection to existing chamber / branch line / tank or as specified etc. with making necessary hole / cutting etc. & remaking the same etc.all competed as directed by Engineer In-charge. | 20.00 | 910.00 | Nos | 18,200.00 |
| 15.34 | Raising rectangular manhole/chamber cover and frame of any size slab to required level including dismantling existing slab and making good the damage as required etc complete as directed by Engineer In-charge. | 30.00 | 2,732.89 | Nos | 81,986.70 |
| 15.35 | Raising circular manhole cover and frame of any size slab to required level including dismantling existing slab and making good the damage as required etc complete as directed by Engineer In-charge. | 30.00 | 4,002.94 | Nos | 1,20,088.20 |
| 15.36 | Cleaning and removing of sludge by manually or by hiring suction truck from Manholes/septic tank at Hostel Area up to 4.0m depth including removal of dirt,sludge including making arrangements for disposing the sludge in low lying area/at suitable location by excavating pit ,disposing sludge in the pit and backfilling of soil in excavated pit etc. complete as directed by Engineer In-charge. | 5.00 | 10,000.00 | Nos | 50,000.00 |
| 15.37 | Providing and fixing precast RCC cover (heavy) with RCC frame for manhole/inspection chamber etc. Manufactured by K.K. Industries or as approved including removing the existing damaged cover and taking away the same out of IIT campus etc. All complete as directed by Engineer In-charge. | 2,000.00 | 50.00 | Kg | 1,00,000.00 |
| | | | | Total 15 | 53,45,167.30 |
| 16 | Watersupply works | | | | |

| | | | | | |
|-------|--|--------|--------|-----|-------------|
| 16.01 | Providing and laying in trenches 15 mm dia nominal bore I.S.I. approved 'C class galvanized iron pipe having weight as per IS specification with screwed sockets, joints, and necessary galvanised iron fittings such as backnuts, elbows, bends, tees, reducers, enlargers, plugs, etc. including providing and applying two coats of synthetic enamel paint with one coat of zinc primer including trenching and refilling etc. all complete as directed by Engineer In-charge. (Make: TATA / Jindal) | 500.00 | 268.41 | Rmt | 1,34,205.00 |
| 16.02 | Providing and laying in trenches 20 mm dia nominal bore I.S.I. approved 'C class galvanized iron pipe having weight as per IS specification with screwed sockets, joints, and necessary galvanised iron fittings such as backnuts, elbows, bends, tees, reducers, enlargers, plugs, etc. including providing and applying two coats of synthetic enamel paint with one coat of zinc primer including trenching and refilling etc. all complete as directed by Engineer In-charge. (Make: TATA / Jindal) | 300.00 | 316.42 | Rmt | 94,926.00 |
| 16.03 | Providing and laying in trenches 25 mm dia nominal bore I.S.I. approved 'C class galvanized iron pipe having weight as per IS specification with screwed sockets, joints, and necessary galvanised iron fittings such as backnuts, elbows, bends, tees, reducers, enlargers, plugs, etc. including providing and applying two coats of synthetic enamel paint with one coat of zinc primer including trenching and refilling etc. all complete as directed by Engineer In-charge. (Make: TATA / Jindal) | 200.00 | 419.37 | Rmt | 83,874.00 |
| 16.04 | Providing and laying in trenches 32 mm dia nominal bore I.S.I. approved 'C class galvanized iron pipe having weight as per IS specification with screwed sockets, joints, and necessary galvanised iron fittings such as backnuts, elbows, bends, tees, reducers, enlargers, plugs, etc. including providing and applying two coats of synthetic enamel paint with one coat of zinc primer including trenching and refilling etc. all complete as directed by Engineer In-charge. (Make: TATA / Jindal) | 100.00 | 459.25 | Rmt | 45,925.00 |
| 16.05 | Providing and laying in trenches 40 mm dia nominal bore I.S.I. approved 'C class galvanized iron pipe having weight as per IS specification with screwed sockets, joints, and necessary galvanised iron fittings such as backnuts, elbows, bends, tees, reducers, enlargers, plugs, etc. including providing and applying two coats of synthetic enamel paint with one coat of zinc primer including trenching and refilling etc. all complete as directed by Engineer In-charge. (Make: TATA / Jindal) | 100.00 | 560.24 | Rmt | 56,024.00 |
| 16.06 | Providing and laying in trenches 50 mm dia nominal bore I.S.I. approved 'C class galvanized iron pipe having weight as per IS specification with screwed sockets, joints, and necessary galvanised iron fittings such as backnuts, elbows, bends, tees, reducers, enlargers, plugs, etc. including providing and applying two coats of synthetic enamel paint with one coat of zinc primer including trenching and refilling etc. all complete as directed by Engineer In-charge. (Make: TATA / Jindal) | 100.00 | 656.42 | Rmt | 65,642.00 |
| 16.07 | Providing and laying in trenches 65 mm dia nominal bore I.S.I. approved 'C class galvanized iron pipe having weight as per IS specification with screwed sockets, joints, and necessary galvanised iron fittings such as backnuts, elbows, bends, tees, reducers, enlargers, plugs, etc. including providing and applying two coats of synthetic enamel paint with one coat of zinc primer including trenching and refilling etc. all complete as directed by Engineer In-charge. (Make: TATA / Jindal) | 50.00 | 771.21 | Rmt | 38,560.50 |
| 16.08 | Providing and laying in trenches 80 mm dia nominal bore I.S.I. approved 'C class galvanized iron pipe having weight as per IS specification with screwed sockets, joints, and necessary galvanised iron fittings such as backnuts, elbows, bends, tees, reducers, enlargers, plugs, etc. including providing and applying two coats of synthetic enamel paint with one coat of zinc primer including trenching and refilling etc. all complete as directed by Engineer In-charge. (Make: TATA / Jindal) | 50.00 | 922.22 | Rmt | 46,111.00 |
| 16.09 | Providing and laying 15 mm dia nominal bore I.S.I. approved 'C class galvanized iron pipes having weight as per IS specification to walls, ceilings, floors etc in open /concealed manner with screwed sockets, back nuts, elbows, tees, reducers, enlargers, plugs, clamps etc. including necessary drilling in holes in walls / slabs etc. and remaking good the demolished portion to restore the same in original condition neatly and applying zinc primer and two coats of synthetic enamel paint painting including necessary working platform etc. all complete as directed by Engineer In-charge. (Make: TATA / Jindal) | 500.00 | 305.18 | Rmt | 1,52,590.00 |

| | | | | | |
|-------|---|--------|--------|-----|-------------|
| 16.10 | Providing and laying 20 mm dia nominal bore I.S.I. approved 'C class galvanized iron pipes having weight as per IS specification to walls, ceilings, floors etc in open /concealed manner with screwed sockets, back nuts, elbows, tees, reducers, enlargers, plugs, clamps etc. including necessary drilling in holes in walls / slabs etc. and remaking good the demolished portion to restore the same in original condition neatly and applying zinc primer and two coats of synthetic enamel paint including necessary working platform etc. all complete as directed by Engineer In-charge. (Make: TATA / Jindal) | 300.00 | 374.62 | Rmt | 1,12,386.00 |
| 16.11 | Providing and laying 25 mm dia nominal bore I.S.I. approved 'C class galvanized iron pipes having weight as per IS specification to walls, ceilings, floors etc in open/concealed manner with screwed sockets, back nuts, elbows, tees, reducers, enlargers, plugs, clamps etc. including necessary drilling in holes in walls / slabs etc. and remaking good the demolished portion to restore the same in original condition neatly and applying zinc primer and two coats of synthetic enamel paint including necessary working platform etc. all complete as directed by Engineer In-charge. (Make: TATA / Jindal) | 200.00 | 492.87 | Rmt | 98,574.00 |
| 16.12 | Providing and laying 32 mm dia nominal bore I.S.I. approved 'C class galvanized iron pipes having weight as per IS specification to walls, ceilings, floors etc in open/concealed manner with screwed sockets, back nuts, elbows, tees, reducers, enlargers, plugs, clamps etc. including necessary drilling in holes in walls / slabs etc. and remaking good the demolished portion to restore the same in original condition neatly and applying zinc primer and two coats of synthetic enamel paint including necessary working platform etc. all complete as directed by Engineer In-charge. (Make: TATA / Jindal) | 50.00 | 565.51 | Rmt | 28,275.50 |
| 16.13 | Providing and laying 40 mm dia nominal bore I.S.I. approved 'C class galvanized iron pipes having weight as per IS specification to walls, ceilings, floors etc in open/concealed manner with screwed sockets, back nuts, elbows, tees, reducers, enlargers, plugs, clamps etc. including necessary drilling in holes in walls / slabs etc. and remaking good the demolished portion to restore the same in original condition neatly and applying zinc primer and two coats of synthetic enamel paint including necessary working platform etc. all complete as directed by Engineer In-charge. (Make: TATA / Jindal) | 50.00 | 727.62 | Rmt | 36,381.00 |
| 16.14 | Providing and laying 50 mm dia nominal bore I.S.I. approved 'C class galvanized iron pipes having weight as per IS specification to walls, ceilings, floors etc in open/concealed manner with screwed sockets, back nuts, elbows, tees, reducers, enlargers, plugs, clamps etc. including necessary drilling in holes in walls / slabs etc. and remaking good the demolished portion to restore the same in original condition neatly and applying zinc primer and two coats of synthetic enamel paint including necessary working platform etc. all complete as directed by Engineer In-charge. (Make: TATA / Jindal) | 50.00 | 896.24 | Rmt | 44,812.00 |
| 16.15 | Providing and fixing G.I. Pipes 15 mm dia nominal bore complete with G.I. fittings and clamps, making good the walls etc. concealed pipe, including painting with anti corrosive bitumastic paint, cutting chases and making good the wall etc. all complete as directed by Engineer In-charge. (Make: TATA / Jindal) | 50.00 | 486.85 | Rmt | 24,342.50 |
| 16.16 | Providing and fixing G.I. Pipes 20 mm dia nominal bore complete with G.I. fittings and clamps, making good the walls etc. concealed pipe, including painting with anti corrosive bitumastic paint, cutting chases and making good the wall etc. all complete as directed by Engineer In-charge. (Make: TATA / Jindal) | 50.00 | 542.94 | Rmt | 27,147.00 |
| 16.17 | Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes 15mm nominal dia. exposed/concealed, having thermal stability for hot & cold water supply including all CPVC plain & brass threaded fittings This includes jointing of pipes & fittings with one step CPVC solvent cement, chase cutting/ trenching, refiling, making good & testing of joints, including fixing the pipe with clamps at 1.00 m spacing, working platform etc complete as per direction of Engineer in Charge. (price is inclusive of all accessories such as brass/plain socket, elbow, tee, union, etc but excluding valves) | 200.00 | 256.77 | Rmt | 51,354.00 |
| 16.18 | Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes 20mm nominal dia. exposed/concealed, having thermal stability for hot & cold water supply including all CPVC plain & brass threaded fittings This includes jointing of pipes & fittings with one step CPVC solvent cement, chase cutting/ trenching, refiling, making good & testing of joints, including fixing the pipe with clamps at 1.00 m spacing, working platform etc complete as per direction of Engineer in Charge. (price is inclusive of all accessories such as brass/plain socket, elbow, tee, union, etc but excluding valves) | 100.00 | 326.20 | Rmt | 32,620.00 |

| | | | | | |
|-------|--|--------|----------|-----|-----------|
| 16.19 | Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes 25mm nominal dia. exposed/concealed, having thermal stability for hot & cold water supply including all CPVC plain & brass threaded fittings This includes jointing of pipes & fittings with one step CPVC solvent cement, chase cutting/ trenching, refiling, making good & testing of joints, including fixing the pipe with clamps at 1.00 m spacing, working platform etc complete as per direction of Engineer in Charge. (price is inclusive of all accessories such as brass/plain socket, elbow, tee, union, etc but excluding valves) | 100.00 | 409.94 | Rmt | 40,994.00 |
| 16.20 | Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes 32mm nominal dia. exposed/concealed, having thermal stability for hot & cold water supply including all CPVC plain & brass threaded fittings This includes jointing of pipes & fittings with one step CPVC solvent cement, chase cutting/ trenching, refiling, making good & testing of joints, including fixing the pipe with clamps at 1.00 m spacing, working platform etc complete as per direction of Engineer in Charge. (price is inclusive of all accessories such as brass/plain socket, elbow, tee, union, etc but excluding valves) | 100.00 | 502.65 | Rmt | 50,265.00 |
| 16.21 | Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes 40mm nominal dia. exposed/concealed, having thermal stability for hot & cold water supply including all CPVC plain & brass threaded fittings This includes jointing of pipes & fittings with one step CPVC solvent cement, chase cutting/ trenching, refiling, making good & testing of joints, including fixing the pipe with clamps at 1.00 m spacing, working platform, etc complete as per direction of Engineer in Charge. (price is inclusive of all accessories such as brass/plain socket, elbow, tee, union, etc but excluding valves) | 50.00 | 676.64 | Rmt | 33,832.00 |
| 16.22 | Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes 50mm nominal dia. exposed/concealed, having thermal stability for hot & cold water supply including all CPVC plain & brass threaded fittings This includes jointing of pipes & fittings with one step CPVC solvent cement, chase cutting/ trenching, refiling, making good & testing of joints, including fixing the pipe with clamps at 1.00 m spacing, working platform, etc complete as per direction of Engineer in Charge. (price is inclusive of all accessories such as brass/plain socket, elbow, tee, union, etc but excluding valves) | 50.00 | 930.15 | Rmt | 46,507.50 |
| 16.23 | Providing and fixing 15mm dia. nominal bore gun metal gate valve with C.I. wheel of approved quality (screwed end) including necessary socket union/nut etc all complete as directed by Engineer In-charge. | 100.00 | 575.00 | Nos | 57,500.00 |
| 16.24 | Providing and fixing 20mm dia. nominal bore gun metal gate valve with C.I. wheel of approved quality (screwed end) including necessary socket union/nut etc all complete as directed by Engineer In-charge. | 100.00 | 463.32 | Nos | 46,332.00 |
| 16.25 | Providing and fixing 25mm dia. nominal bore gun metal gate valve with C.I. wheel of approved quality (screwed end) including necessary socket union/nut etc all complete as directed by Engineer In-charge. | 50.00 | 534.16 | Nos | 26,708.00 |
| 16.26 | Providing and fixing 32mm dia. nominal bore gun metal gate valve with C.I. wheel of approved quality (screwed end) including necessary socket union/nut etc all complete as directed by Engineer In-charge. | 50.00 | 591.90 | Nos | 29,595.00 |
| 16.27 | Providing and fixing 40mm dia. nominal bore gun metal gate valve with C.I. wheel of approved quality (screwed end) including necessary socket union/nut etc all complete as directed by Engineer In-charge. | 50.00 | 709.70 | Nos | 35,485.00 |
| 16.28 | Providing and fixing 50mm dia. nominal bore gun metal gate valve with C.I. wheel of approved quality (screwed end) including necessary socket union/nut etc all complete as directed by Engineer In-charge. | 50.00 | 881.24 | Nos | 44,062.00 |
| 16.29 | Providing and fixing 65mm dia. nominal bore gun metal gate valve with C.I. wheel of approved quality (screwed end) including necessary socket union/nut etc all complete as directed by Engineer In-charge. | 50.00 | 1,495.76 | Nos | 74,788.00 |
| 16.30 | Providing and fixing 80mm dia. nominal bore gun metal gate valve with C.I. wheel of approved quality (screwed end) including necessary socket union/nut etc all complete as directed by Engineer In-charge. | 30.00 | 2,235.16 | Nos | 67,054.80 |
| 16.31 | Providing and fixing 15 mm dia nominal bore brass stop cock of approved quality with required fittings and fixtures etc all complete as directed by Engineer In-charge. | 100.00 | 304.88 | Nos | 30,488.00 |
| 16.32 | Providing and fixing 20 mm dia nominal bore brass stop cock of approved quality with required fittings and fixtures etc all complete as directed by Engineer In-charge. | 100.00 | 329.06 | Nos | 32,906.00 |

| | | | | | |
|-------|---|-------|----------|---------|-----------|
| 16.33 | Providing and fixing 25mm dia. gun metal pressure reducing valve I.S.I. approved heavy type including removing existing pressure reducing valve , with all required fittings etc. all complete as directed by Engineer In-charge. | 10.00 | 4,177.00 | Nos | 41,770.00 |
| 16.34 | Providing and fixing 32mm dia. gun metal pressure reducing valve I.S.I. approved heavy type including removing existing pressure reducing valve , with all required fittings etc. all complete as directed by Engineer In-charge. | 10.00 | 4,723.00 | Nos | 47,230.00 |
| 16.35 | Connection of 15mm dia pipe line which is newly laid to old pipe line in wall with 4" to 5" barrel piece, union, elbow & 14" barel piece etc. required fittings and fixtures including making hole carefully in wall without disturbing existings pipe line, p/f new line of existing dia remaking good the demolished portion from outside to restore the same in original condition neatly, painting to pipe, working platform etc all complete as directed by Engineer In-charge. (extra pipe line will be paid in respective item) | 50.00 | 773.00 | Per job | 38,650.00 |
| 16.36 | Connection of 20mm dia pipe line which is newly laid to old pipe line in wall with 4" to 5" barrel piece, union, elbow & 14" barel piece etc. required fittings and fixtures including making hole carefully in wall without disturbing existings pipe line, p/f new line of existing dia remaking good the demolished portion from outside to restore the same in original condition neatly, painting to pipe, working platform etc all complete as directed by Engineer In-charge. (extra pipe line will be paid in respective item) | 50.00 | 992.00 | per job | 49,600.00 |
| 16.37 | Providing and laying 150mm dia in trenches centrifugally cast (spun) Iron pipes, water quality conforming to I.S. specification including lowering down in trenches, connecting with existing and new lines, pumps etc. including cutting to length as per requirement, placing in position to correct line and alignment for jointing, testing the pipes and joints hydraulically with a pressure upto 10 kg. / sq.cm after making necessary joints etc all complete as directed by Engineer In-charge. (joints will be paid separately). | 5.00 | 1,830.89 | Rmt | 9,154.45 |
| 16.38 | Providing and laying 200mm dia in trenches centrifugally cast (spun) Iron pipes, water quality conforming to I.S. specification including lowering down in trenches, connecting with existing and new lines, pumps etc. including cutting to length as per requirement, placing in position to correct line and alignment for jointing, testing the pipes and joints hydraulically with a pressure upto 10 kg. / sq.cm after making necessary joints etc all complete as directed by Engineer In-charge. (joints will be paid separately). | 5.00 | 3,094.11 | Rmt | 15,470.55 |
| 16.39 | Providing and laying 250mm dia in trenches centrifugally cast (spun) Iron pipes, water quality conforming to I.S. 1536 specification including lowering down in trenches, connecting with existing and new lines, pumps etc. including cutting to length as per requirement, placing in position to correct line and alignment for jointing, testing the pipes and joints hydraulically with a pressure upto 10 kg. / sq.cm after making necessary joints etc all complete as directed by Engineer In-charge. (joints will be paid separately). | 5.00 | 4,044.17 | Rmt | 20,220.85 |
| 16.40 | Providing and laying 300mm dia in trenches centrifugally cast (spun) Iron pipes, water quality conforming to I.S. specification including lowering down in trenches, connecting with existing and new lines, pumps etc. including cutting to length as per requirement, placing in position to correct line and alignment for jointing, testing the pipes and joints hydraulically with a pressure upto 10 kg. / sq.cm after making necessary joints etc all complete as directed by Engineer In-charge. (joints will be paid separately). | 5.00 | 5,445.86 | Rmt | 27,229.30 |
| 16.41 | Providing and laying flanged C.I. standard specials such as tees, bends, collars, tapers, caps etc., suitable for flanged jointing as per IS specification Up to 300 mm dia. etc all complete as directed by Engineer In-charge. | 10.00 | 82.20 | Kg | 822.00 |
| 16.42 | Providing and making lead caulked joints to cast iron pipes and specials including cost of pig lead, spurn yarn, fuel, labour, lead pouring, caulking etc complete including testing the pipes and joints hydraulically with a pressure upto 10 kg. / sq. cm. (150 mm dia pipe joints with not less than 2.20 Kg. lead per joint.) etc all complete as directed by Engineer In-charge. | 5.00 | 617.84 | Nos | 3,089.20 |
| 16.43 | Providing and making lead caulked joints to cast iron pipes and specials including cost of pig lead, spurn yarn, fuel, labour, lead pouring, caulking etc complete including testing the pipes and joints hydraulically with a pressure upto 10 kg. / sq. cm. (200 mm dia pipe joints with not less than 2.20 Kg. lead per joint.) etc all complete as directed by Engineer In-charge. | 5.00 | 821.13 | Nos | 4,105.65 |
| 16.44 | Providing and making lead caulked joints to cast iron pipes and specials including cost of pig lead, spurn yarn, fuel, labour, lead pouring, caulking etc complete including testing the pipes and joints hydraulically with a pressure upto 10 kg. / sq. cm. (250 mm dia pipe joints with not less than 2.20 Kg. lead per joint.) etc all complete as directed by Engineer In-charge. | 5.00 | 1,026.52 | Nos | 5,132.60 |

| | | | | | |
|-------|--|--------|----------|---------|-------------|
| 16.45 | Providing and making lead caulked joints to cast iron pipes and specials including cost of pig lead, spurn yarn, fuel, labour, lead pouring, caulking etc complete including testing the pipes and joints hydraulically with a pressure upto 10 kg. / sq. cm. (300 mm dia pipe joints with not less than 2.20 Kg. lead per joint.) etc all complete as directed by Engineer In-charge. | 5.00 | 1,234.83 | Nos | 6,174.15 |
| 16.46 | Providing flanged joints to double flanged C.I./ D.I. pipes and specials, including testing of joints for 80 mm diameter pipe etc all complete as directed by Engineer In-charge. | 5.00 | 183.47 | Nos | 917.35 |
| 16.47 | Providing and laying S&S C.I./D.I. standard specials such as tees, bends, collars, tapers, caps (Heavy class : Up to 300 mm dia.) etc all complete as directed by Engineer In-charge. | 5.00 | 56.69 | Kg | 283.45 |
| 16.48 | Providing and laying S&S Centrifugally Cast (Spun) / Ductile Iron Pipes conforming to IS specification : 150 mm dia Ductile Iron Class K-9 pipes etc all complete as directed by Engineer In-charge. | 5.00 | 1,630.56 | Rmt | 8,152.80 |
| 16.49 | Providing and laying Double Flanged (Screwed/ Welded) Centrifugally (Spun) Ductile Iron Pipes of Class K - 9 conforming to IS specification : 150 mm dia Ductile Iron Double Flanged etc all complete as directed by Engineer In-charge. | 5.00 | 2,320.75 | Rmt | 11,603.75 |
| 16.50 | Providing and laying temporary loop connection in any type of building to main water supply inlet and outlet of water tank using 'C' class GI pipes of any dia. With all fittings like elbows, tees, reducers, plugs, clamps etc. including other connections and commissioning the water supply line including working platform if required and remaking to original connections after repair etc. all complete as directed by Engineer In-charge. | 5.00 | 5,821.00 | per job | 29,105.00 |
| 16.51 | Providing and laying temporary loop connection to main water supply inlet and outlet of water tank with CPVC pipe of any dia elbows, tees, reducers, plugs, clamps etc. including other connections and commissioning the water supply line including working platform if required and remaking to original connections after repair etc. all complete as directed by Engineer In-charge. | 5.00 | 4,020.00 | per job | 20,100.00 |
| 16.52 | Providing and fixing 15mm dia ball valve of ISI mark (Brass) including necessary socket union/nut etc all complete as directed by Engineer In-charge. | 200.00 | 350.04 | Nos | 70,008.00 |
| 16.53 | Providing and fixing 20mm dia ball valve of ISI mark (Brass) including necessary socket union/nut etc all complete as directed by Engineer In-charge. | 200.00 | 398.80 | Nos | 79,760.00 |
| 16.54 | Providing and fixing 25mm dia ball valve of ISI mark (Brass) including necessary socket union/nut etc all complete as directed by Engineer In-charge. | 100.00 | 400.51 | Nos | 40,051.00 |
| 16.55 | Providing and fixing 40mm dia ball valve of ISI mark (Brass) including necessary socket union/nut etc all complete as directed by Engineer In-charge. | 50.00 | 2,956.00 | Nos | 1,47,800.00 |
| 16.56 | Providing and fixing 50mm dia ball valve of ISI mark (Brass) including necessary socket union/nut etc all complete as directed by Engineer In-charge. | 50.00 | 3,531.00 | Nos | 1,76,550.00 |
| 16.57 | Providing and fixing FRP water tank cover (heavy duty) with frame of clear opening size not less than 22 inches dia., manufactured by K.K.Manholes or approved make including removing the existing damaged cover and taking away the same out of IIT campus and making all necessary arrangements to make the area accessible for work and taking all necessary safety precautions during execution of work etc all complete as directed by Engineer In-charge. | 5.00 | 4,911.00 | Nos | 24,555.00 |
| 16.58 | Providing and fixing FRP water tank cover (heavy duty) with frame of clear opening size not less than 24 inches dia., manufactured by K.K.Manholes or approved make including removing the existing damaged cover and taking away the same out of IIT campus and making all necessary arrangements to make the area accessible for work and taking all necessary safety precautions during execution of work etc all complete as directed by Engineer In-charge. | 5.00 | 5,114.00 | Nos | 25,570.00 |
| 16.59 | Providing and fixing 25mm dia. nominal bore gun metal non-return valve (Horizontal / Vertical) with C.I. wheel of approved quality (screwed end) including necessary socket, union/nut etc all complete as directed by Engineer In-charge. | 30.00 | 575.50 | Nos | 17,265.00 |
| 16.60 | Providing and fixing 32mm dia. nominal bore gun metal non-return valve (Horizontal / Vertical) with C.I. wheel of approved quality (screwed end) including necessary socket, union/nut etc all complete as directed by Engineer In-charge. | 5.00 | 780.54 | Nos | 3,902.70 |
| 16.61 | Providing and fixing 40mm dia. nominal bore gun metal non-return valve (Horizontal / Vertical) with C.I. wheel of approved quality (screwed end) including necessary socket, union/nut etc all complete as directed by Engineer In-charge. | 5.00 | 1,052.76 | Nos | 5,263.80 |

| | | | | | |
|-------------------------------|--|----------|-----------|-----------------|---------------------|
| 16.62 | Providing and fixing 50mm dia. nominal bore gun metal non-return valve (Horizontal / Vertical) with C.I. wheel of approved quality (screwed end) including necessary socket, union/nut etc all complete as directed by Engineer In-charge. | 5.00 | 1,325.28 | Nos | 6,626.40 |
| 16.63 | Providing and fixing 65mm dia. nominal bore gun metal non-return valve (Horizontal / Vertical) with C.I. wheel of approved quality (screwed end) including necessary socket, union/nut etc all complete as directed by Engineer In-charge. | 5.00 | 2,134.47 | Nos | 10,672.35 |
| 16.64 | Providing and fixing 80mm dia. nominal bore gun metal non-return valve (Horizontal / Vertical) with C.I. wheel of approved quality (screwed end) including necessary socket, union/nut etc all complete as directed by Engineer In-charge. | 5.00 | 3,548.15 | Nos | 17,740.75 |
| 16.65 | Providing and fixing 150mm dia. nominal bore C.I. non-return valve (Horizontal / Vertical) with C.I. wheel of approved quality (screwed end) including necessary socket, union/nut etc all complete as directed by Engineer In-charge. | 5.00 | 19,550.00 | Nos | 97,750.00 |
| 16.66 | Providing and fixing 200mm dia. nominal bore C.I. non-return valve (Horizontal / Vertical) with C.I. wheel of approved quality (screwed end) including necessary socket, union/nut etc all complete as directed by Engineer In-charge. | 1.00 | 34,270.00 | Nos | 34,270.00 |
| 16.67 | Providing and fixing 250mm dia. nominal bore C.I. non-return valve (Horizontal / Vertical) with C.I. wheel of approved quality (screwed end) including necessary socket, union/nut etc all complete as directed by Engineer In-charge. | 1.00 | 56,120.00 | Nos | 56,120.00 |
| 16.68 | Providing and fixing 100mm dia. C.I. Sluice valve with C.I. wheel of approved quality (screwed end) including necessary socket, rubber insertion, bolts & nuts etc all complete as directed by Engineer In-charge. | 1.00 | 4,111.80 | Nos | 4,111.80 |
| 16.69 | Providing and fixing 150mm dia. C.I. Sluice valve with C.I. wheel of approved quality (screwed end) including necessary socket, rubber insertion, bolts & nuts etc all complete as directed by Engineer In-charge. | 1.00 | 6,000.74 | Nos | 6,000.74 |
| 16.70 | Providing and fixing 200mm dia. C.I. Sluice valve with C.I. wheel of approved quality (screwed end) including necessary socket, rubber insertion, bolts & nuts etc all complete as directed by Engineer In-charge. | 1.00 | 11,648.89 | Nos | 11,648.89 |
| 16.71 | Providing and fixing 250mm dia. C.I. Sluice valve with C.I. wheel of approved quality (screwed end) including necessary socket, rubber insertion, bolts & nuts etc all complete as directed by Engineer In-charge. | 1.00 | 16,805.33 | Nos | 16,805.33 |
| 16.72 | Providing and fixing 300mm dia. C.I. Sluice valve with C.I. wheel of approved quality (screwed end) including necessary socket, rubber insertion, bolts & nuts etc all complete as directed by Engineer In-charge. | 1.00 | 23,241.29 | Nos | 23,241.29 |
| 16.73 | Providing and fixing 25mm dia. Ball cock of ISI mark includes removing of existing ball cock and making all necessary arrangements to make the area accessible for work and taking all necessary safety precautions during execution of work etc all complete as directed by Engineer In-charge. | 100.00 | 1,093.00 | Nos | 1,09,300.00 |
| 16.74 | Providing and fixing 40mm dia. Ball cock of ISI mark includes removing of existing ball cock and making all necessary arrangements to make the area accessible for work and taking all necessary safety precautions during execution of work etc all complete as directed by Engineer In-charge. | 10.00 | 1,955.00 | Nos | 19,550.00 |
| 16.75 | Providing and fixing 50mm dia. Ball cock of ISI mark includes removing of existing ball cock and making all necessary arrangements to make the area accessible for work and taking all necessary safety precautions during execution of work etc all complete as directed by Engineer In-charge. | 10.00 | 2,645.00 | Nos | 26,450.00 |
| | | | | Total 16 | 31,60,090.95 |
| 17 Waterproofing works | | | | | |
| 17.01 | Providing waterproof bedding for flooring of bath and W.C. 25mm thick in cement mortar 1:3 using waterproofing compound 2% by weight of cement including leveling, curing etc. all complete as directed by Engineer In-charge. | 500.00 | 427.00 | Sqm | 2,13,500.00 |
| 17.02 | Providing waterproof plaster in WC 20mm thick for in cement mortar 1:3 with neat finishing, floating using waterproofing compound at the rate of 2% by weight of cement etc. all complete as directed by Engineer In-charge. | 1,000.00 | 536.00 | Sqm | 5,36,000.00 |
| 17.03 | Providing waterproof plaster in w. c. and bath 12mm thick for dado in cement mortar 1:3 with neat finishing, floating using waterproofing compound at the rate of 2% by weight of cement etc. all complete as directed by Engineer In-charge. | 1,000.00 | 515.00 | Sqm | 5,15,000.00 |

| | | | | | |
|-------|---|--------|----------|-----|--------------|
| 17.04 | Providing and laying water proofing cement concrete flooring to terrace upto any height to average 50mm thick with 1:2:3 cement concrete laid to proper level and slope using silt free clear river sand including compaction, filling joints, adding recommended waterproofing admixtures @ 2% by weight of cement, finishing the top surfaces with broken china mosaic (broken piece of glazed tiled) of approved colour & pattern including neat cement float, testing the roof by ponding with water for 14 days, providing waterproofing guarantee/warranty for 5 (five) years in requisite (Rs. 500/-) non judicial stamp paper in favour of IITB etc. all complete as directed by Engineer In-charge. | 100.00 | 1,116.00 | Sqm | 1,11,600.00 |
| 17.05 | Providing and laying waterproofing cement concrete (IPS) at any level, over inside slab, etc., as directed, to average 50mm thick with 1:1.5:2 cement concrete laid to proper level and slope using silt free clear river sand including compaction, filling joints, adding recommended waterproofing admixtures as per manufacturer's specifications, marking false marks as directed to give appearances of tiles of 30cm x 30cm or other approved size laid diagonally / square, finishing with extra cement in any colour as directed, testing the treatment by ponding with water for 14 days, providing waterproofing guarantee/warranty for 5 (five) years in requisite (Rs. 500/-) non judicial stamp paper in favor of IITB including all lead and lift etc. all complete as directed by Engineer In-charge. | 200.00 | 931.80 | Sqm | 1,86,360.00 |
| 17.06 | Providing and laying integral cement based treatment for waterproofing on horizontal surface at all depth below ground level for under ground structures as directed by Engineer-in-Charge and consisting of : i) Ist layer of 22mm to 25mm thick approved and specified shahabad stone slab over a 25mm thick base of cement mortar 1:3 (1 cement : 3 coarse sand) mixed with water proofing compound 2% by weight of cement in the recommended proportion over the leveling course (leveling course to be paid separately). Joints sealed and grouted with cement slurry mixed with water proofing compound. ii) 2nd layer of 25mm thick cement mortar 1:3 (1cement: 3 coarsesand) mixed with water proofing compound in recommended proportionsetc. all complete as directed by Engineer In-charge. | 50.00 | 1,367.57 | Sqm | 68,378.50 |
| 17.07 | Providing and laying integral cement based treatment for waterproofing on vertical surface by fixing rough shahabad stone slab 22mm to 25mm thick with cement slurry mixed with water proofing compound in recommended proportion with a gap of 20mm (minimum) between stone slabs and the receiving surfaces and filling the gaps with neat cement slurry mixed with water proofing compound and finishing the exterior of stone slab with cement mortar 1:3 (1 Cement : 3 coarse sand) 20mm thick with neat cement punning mixed with waterproofing compound in recommended proportion complete at all levels and as directed by Engineer in charge. | 50.00 | 1,786.34 | Sqm | 89,317.00 |
| 17.08 | Providing and laying waterproofing treatment of 120mm av. thickness consisting of 12mm thick layer in cement mortar 1:3 with water proofing compound 2% by weight of cement as base, constructing and laying brick bat coba in cement mortar 1:5 with waterproofing compound at the rate of 2% by weight of cement and having average thickness of 80mm and finishing with 20mm thick cement plaster layer in cement mortar 1:3 with water proofing compound 2% by weight of cement including all lead, lifts and laid to proper slope to drain off water entirely including water at the junction of parapet and work upto a height of 300mm or as directed and including finishing the top layer of water proofing treatment with false marking of 30cm x 30cm or as directed and covering the whole treatment with 10 (ten) years' guarantee/warranty on requisite (Rs. 500/-) non-judicial stamp paper etc. all complete as directed by Engineer In-charge. | 300.00 | 1,528.12 | Sqm | 4,58,436.00 |
| 17.09 | Providing & laying cement based water proofing treatment to terrace / toilet block as required brick bats laid in required slope to drain the water for any span after cleaning the base surface. Applying a coat of cement slurry admixed with approved water proofing compound and laying the brick bats on bottom layer in C.M 1:5 admixed with approved water proofing compound filling up to half depth of brick bats, curing this layer 3 days, applying cement slurry over this layer joints of brick bats with C.M. 1:3 admixed with approved water proofing compound and finally top finishing with average 20mm thick layer of same mortar finishing the surface smooth with cement slurry admixed with approved water proofing compound including all leads, lifts, curing etc. Covering 10 (ten) years' guarantee/warranty on requisite (Rs. 500/-) non- judicial stamp paper etc. all complete as directed by Engineer In-charge. | 300.00 | 6,516.00 | Cum | 19,54,800.00 |

| | | | | | |
|-------|--|----------|--------|-----|-------------|
| 17.10 | <p>Providing and applying waterproofing treatment for horizontal surfaces using ROOF 540 waterproofing system manufacturer by Perfect Seal or Mastersealroof- 3500 waterproofing system manufacturer by BASF or CHRYSO PROOF ACRYLIC Five Layer System. The waterproofing treatment should be carry out as per manufacturers specifications with all lead, lift, polymer coating on entire surface etc. And covering the whole treatment with 05 (five) years guarantee/warranty on requisite (Rs. 500/-) non judicial stamp paper. Work Shall be got executed through certified applicator of the product manufacturing company only including submitting written guarantee/warranty from said certified applicator etc. all complete as directed by Engineer In-charge.</p> <p>Note: In case of leakage during monsoon, contractor has to rectify leakage within 24 hrs of intimation given by Estate Office, else Estate Office shall cover the surface with tarpaulin sheet at contractor's risk and cost.</p> | 100.00 | 830.00 | Sqm | 83,000.00 |
| 17.11 | <p>Providing and applying waterproofing treatment for vertical surfaces using ROOF 540 waterproofing system manufacturer by Perfect Seal or Mastersealroof- 3500 waterproofing system manufacturer by BASF or Chryso Proof Acrylic five layer system manufactured by M/s Chryso. The waterproofing treatment should carry out as per manufacturers specifications with all lead, lift, polymer coating on entire surface etc. And covering the whole treatment with five years guarantee/warranty, on requisite (Rs. 500/-) non judicial stamp paper Work Shall be got executed through certified applicator of the product manufacturing company only including submitting written guarantee/warranty from said certified applicator. etc. all complete as directed by Engineer In-charge. Note: In case of leakage during monsoon, contractor has to rectify leakage within 24 hrs of intimation given by Estate Office, else Estate Office shall cover the surface with tarpaulin sheet at contractor's risk and cost.</p> | 100.00 | 730.00 | Sqm | 73,000.00 |
| 17.12 | <p>Providing and applying one coat of solvent based bitumen primer as per IS specification on roof of the building @0.25 liters/sqm. Inculding cleaning and removing defective exting loose layer of membrane thoroughly with wire brush / coir brush rectification of all damages etc. all complete as directed by Engineer In-charge.</p> | 50.00 | 45.00 | Sqm | 2,250.00 |
| 17.13 | <p>Providing and dammering to roof with one coat of bitumen 90/15 or 85/25 as per IS specification @1.5 kg./sqm uniformly and providing dongri cloth including finishing surface with heat reflective bitumen based silver paint @0.10 ltr/sqm etc. Complete as directed and covering the bitumen treatment with the guarantee of 2 years on requisite stamp paper etc. disel operated bitumen heating machine should be used for this activity (Wooden fuel is not allowed) etc. all complete as directed by Engineer In-charge.</p> | 50.00 | 255.00 | Sqm | 12,750.00 |
| 17.14 | <p>Providing and applying three coats of Dr. Fixit Roof seal coating including preparing surface by pressure washing the surface to remove all algae, mould, dirt, dust, chalking and waste products. All visible hairline cracks more than 0.50mm and not giving hollow sound on the IPS/screed or at the junctions of flat roof & vertical parapet wall, pipe joints, should be cut and widen V shape with mechanical cutter in the size (6mm W x 6mm D) and fill with Dr. Fixit PU Sealant covering the entire area uniformly with suitable gun. Allow sealant to cure a minimum 24 hours. Apply minimum 50mm - 100 mm width 45 GSM Glass Fibre Mesh / non-woven geo textile fleece with the coat of Dr. Fixit Roofseal Select along the length of crack. Apply one coat of Dr. Fixit Primeseal primer dilute with water in the ratio 2:1. Allow it to dry for 2 to 3 hours. Apply 1st coat of Dr. Fixit Roofseal Select at the rate of 2.0 sqmt / litre / coat. An open 45 Gsm glass fibre mesh of 2.5 mm x 2.5 mm must be sandwiched between the first and second coat. While the 1st coat is still wet, place the fibre mesh on it. Allow the first coat to dry for 6-8 hours. Apply second coat of Dr. Fixit Roofseal Select with the same application coverage. Application direction of second coat should be perpendicular to that of the first coat. Allow second coat to dry for 6-8 hours.</p> <p>Apply third coat of Dr. Fixit Roofseal Select at an application direction that is perpendicular to that of the second coat with same application coverage rate. Check to see no void surface is left untreated / uncoated. Allow the system to air cure for 7 days minimum. A total thickness of 1 mm must be achieved when Dr. Fixit Roofseal Select is dry. Work Shall be got executed through certified applicator of the product manufacturing company only and work shall be guarantee/warranty for 03 years by the contractor on requisite (Rs. 500/-) non judicial stamp paper including submitting written guarantee/warranty from said certified applicator etc. all complete as directed by Engineer In-charge.</p> | 1,000.00 | 470.00 | Sqm | 4,70,000.00 |

| | | | | | |
|-------|---|----------|--------|-----|-------------|
| 17.15 | Providing and applying two coat of Prime seal of Dr.Fixit over plaster masonry or RCC surface as per manufacturer specification including preparing the surface by thoroughly cleaning laitance, loose material, oil, grease and other foreign matter with wire brush and vacuum cleaner or water jet. Fine hair line cracks more than 0.50 mm must be widened up to 5 mm minimum in V shape and then fill cracks with Dr. Fixit Crack-X Paste on masonry plaster surface. Apply primer coat prepared with Dr. Fixit Crack-X Paste and water in 1:1 proportion over the crack. Fill Dr. Fixit Crack-X Paste when the surface is tacky and not dried completely. Press Dr. Fixit Crack-X Paste firmly into the crack with a spatula or putty knives and level with the surface. Care must be taken to avoid formation of cavities or bubbles during application. Allow it to set for 24 hours and then apply another coat of Dr. Fixit Crack-X Paste with use of stepladder/ working platform etc. all complete as directed by Engineer In-charge. | 2,000.00 | 71.00 | Sqm | 1,42,000.00 |
| 17.16 | Providing and applying one or more coat of Dr. Fixit Raincoat Universal Base Coat over plaster, masonry or RCC surface of any height without any dilution at a spreading rate of 3.5 -4.0 sq mtr per litre to achieve about 120-150 microns DFT as per manufacturer specification including preparing the surface by thoroughly cleaning laitance, loose material, oil, grease and other foreign matter with wire brush and vacuum cleaning or jet cleaning, filling the cracks using appropriate exterior putty with use of stepladder/ working platform and covering the floor and wall, window glass with plastic sheet during work and cleaning after work etc. all complete as directed by Engineer In-charge.(For vertical surface) | 2,000.00 | 146.00 | Sqm | 2,92,000.00 |
| 17.17 | Providing and applying one or more coat with uniform finish of Dr. Fixit Raincoat select Top coat to be apply with interval of 6-8 hours without any dilution at spreading rate of 6.5 sq mtr per litre to achieve about 60 microns DFT. Achieving total DFT of 180 to 210 microns same as existing colour/shade as per manufacturer's specification on plastered surface over concrete / brickwork of any height with use of stepladder/ working platform including cleaning the surface thoroughly, watering the surface etc. Complete including covering the floor and wall, window glass with plastic sheet and cleaning after work. Work Shall be got executed through certified applicator of the product manufacturing company only and covering the whole treatment with 03 years guarantee/warranty on requisite (Rs. 500/-) non-judicial stamp paper including submitting written guarantee/warranty from said certified applicator etc. all complete as directed by Engineer In-charge. | 2,000.00 | 142.00 | Sqm | 2,84,000.00 |
| 17.18 | Providing and laying APP (Atactic Polypropylene Polymer) modified prefabricated five layer 3 mm thick water proofing membrane, black finished reinforced with non-woven polyester matt consisting of a coat of bitumen primer for bitumen membrane @ 0.40 litre/sqm by the same membrane manufacture of density at 25°C, 0.87-0.89 kg/ litre and viscosity 70-160 cps. Over the primer coat the layer of membrane shall be laid using Butane Torch and sealing all joints etc, and preparing the surface complete. The vital physical and chemical parameters of the membrane shall be as under : Joint strength in longitudinal and transverse direction at 23°C as 650/ 450N/ 5cm. Tear strength in longitudinal and transverse direction as 300/ 250N. Softening point of membrane not less than 150°C. Cold flexibility shall be upto -2°C when tested in accordance with relevant code. The laying of membrane shall be got done through the authorised applicator of the manufacturer of membrane (NILOBIT/ STP/ Pedilite/Asian or approved) including repairing the damaged rainwater spouts on terraces on existing membrane and patchwork with bitumen coating, removing the existing tarfelt treatment without causing damages to the existing structure, cleaning the surface neatly and finishing the surface with heat reflective bitumen based silver paint @0.10 ltr/sqm with overlapping of 75mm along length and 100mm along width of any height including, removing loose mortar from the terrace slab and covering the whole treatment with with 05 years' guarantee/warranty on requisite (Rs. 500/-) non-judicial stamp paper etc. all complete as directed by Engineer In-charge. | 1,000.00 | 565.41 | Sqm | 5,65,410.00 |
| 17.19 | Extra for covering top of membrane with Geotextile, 120 gsm non woven, 100% polyester of thickness 1 to 1.25 mm bonded to the membrane with intermittent touch by heating the membrane by Butane Torch as per manufactures recommendation. | 200.00 | 103.85 | Sqm | 20,770.00 |

| | | | | | |
|-----------|--|----------|----------|-----------------|---------------------|
| 17.20 | Providing and applying waterproofing treatment for vertical & horizontal construction joint using Masterseal NP1 sealant waterproofing system manufactured by BASF or CHRYSO Polyband system by Chryso India Ltd. The waterproofing treatment should be carry out as per manufacturers specifications with all lead, lift etc. with use of working platform and covering the whole treatment with 05 years guarantee/warranty on requisite (Rs. 500/-) non judicial stamp paper. Work Shall be got executed through certified applicator of the product manufacturing company only including submitting written guarantee/warranty from said certified applicator. etc all complete as directed by Engineer In-Charge. Note: In case of leakage during monsoon, contractor has to rectify leakage within 24 hrs of intimation given by Estate Office, else Estate Office shall cover the surface with tarpaulin sheet at contractor's risk and cost. | 100.00 | 2,249.00 | Rmt | 2,24,900.00 |
| 17.21 | Providing and applying Dr.Fixit Dampguard Classic(Base + Hardener) as per manufactures specification including scrapping applying first coat of Dampguard Classic over that applying Damguard Classic Putty followed by Scrapping and after that applying final coat of Damgurad Classic etc. all complete as directed by Engineer In-charge. | 100.00 | 468.00 | Sqm | 46,800.00 |
| 17.22 | Providing and applying one coat of Walgard Prime followed by 2 coats of Walgard WB PU coating as per manufactures specification.(Apurva India Pvt.Ldt Make/any approved make) etc. all complete as directed by Engineer In-charge. | 50.00 | 433.00 | Sqm | 21,650.00 |
| 17.23 | Grouting the joints of flooring tiles by following operations (1) Cutting, demarcating grooves / joints of 3mm width with electrically operated cutter machine. (2) cleaning of grooves / joints with wire brush and water jet. (3) Filling the grooves / joints using white cement mixed with pigment of matching / desired shade. (4)Cleaning the site, finishing etc all complete as per direction of Engineer-in-charge. | 1,000.00 | 94.00 | Sqm | 94,000.00 |
| 17.24 | Grouting the joints of flooring tiles by following operations (1) Cutting, demarcating grooves / joints of 3mm width with electrically operated cutter machine. (2) cleaning of grooves / joints with wire brush and water jet.(3) Filling the grooves / joints using epoxy grout mix of 0.70 kg of organic coated filler of desired shade (0.10 kg of hardener and 0.20 kg of resin per kg). (4)Cleaning the site, finishing etc all complete as per direction of Engineer-in-charge. | 1,000.00 | 259.53 | Sqm | 2,59,530.00 |
| 17.25 | Providing and fixing machine moulded anodised aluminium sheet of not less than 1.0 mm thick of approved pattern & design, made out of machine cut aluminium sheet over expansion joints on vertical surfaces/ceiling floors, fixing in one row on two side of joint shall be done with stainless steel dash fasteners including filling the joint with bitumen filler/ foamboard and sealing the whole with joint sealant of approved company, providing aluminium washers at a staggered pitch, drilling holes in the receiving surface and providing expandable plastic sleeves in holes etc. all complete as directed by Engineer In-charge. | 50.00 | 2,526.00 | Sqm | 1,26,300.00 |
| | | | | Total 17 | 68,51,751.50 |
| 18 | Road works | | | | |
| 18.01 | Providing and laying, spreading and compacting Grade -I Metal (size range 63 to 45mm (2) using Screening Type-A (13.2mm agg.) stone aggregates to water bound macadam specification including spreading in uniform thickness, hand packing, rolling with 3 wheeled steel / vibratory roller 8- 10 tonnes capacity in stages to proper grade and camber, applying and brooming requisite type of screening/ binding materials to fill up the interstices of coarse aggregate, watering and compacting to the required density etc. all complete as directed by Engineer In-Charge. (compacted thickness will be taken for payment) | 50.00 | 3,270.00 | Cum | 1,63,500.00 |
| 18.02 | Providing and laying, spreading and compacting Grade -II Metal (size range 53 to 22.40mm)(2) using Screening Type-B (11.2mm agg.) stone aggregates to water bound macadam specification including spreading in uniform thickness, hand packing, rolling with 3 wheeled steel / vibratory roller 8- 10 tonnes capacity in stages to proper grade and camber, applying and brooming requisite type of screening/ binding materials to fill up the interstices of coarse aggregate, watering and compacting to the required density etc. all complete as directed by Engineer In-Charge. (compacted thickness will be taken for payment) | 50.00 | 3,537.00 | Cum | 1,76,850.00 |

| | | | | | |
|-------|---|--------|----------|-----|-------------|
| 18.03 | Construction of granular sub-base (grade I) by providing close graded material conforming to specifications, mixing in a mechanical mix plant at OMC, carriage of mixed material by tippers to work site, for all leads & lifts, spreading in uniform layers of specified thickness on prepared surface and compacting with vibratory power roller to achieve the desired density, complete as per specifications etc. all complete as directed by Engineer In-Charge. (Compacted thickness will be taken for payment.) | 50.00 | 2,667.12 | Cum | 1,33,356.00 |
| 18.04 | Construction of granular sub-base (grade II) by providing close graded material conforming to specifications, mixing in a mechanical mix plant at OMC, carriage of mixed material by tippers to work site, for all leads & lifts, spreading in uniform layers of specified thickness on prepared surface and compacting with vibratory power roller to achieve the desired density, complete as per specifications etc. all complete as directed by Engineer In-Charge. (Compacted thickness will be taken for payment.) | 50.00 | 2,785.07 | Cum | 1,39,253.50 |
| 18.05 | Providing, laying, spreading and compacting graded stone aggregate having gradation as per MORTH Table 400-13 (size range 53 mm to 0.075 mm) to wet mix macadam (WMM) specification including premixing the material with water at OMC in for all leads & lifts, laying in uniform layers with mechanical paver finisher in sub- base / base course on well prepared surface and compacting with vibratory roller of 8 to 10 tonne capacity to achieve the desired density, complete as per specifications etc. all complete as directed by Engineer In-Charge.(Compacted thickness will be taken for payment.) | 50.00 | 2,813.16 | Cum | 1,40,658.00 |
| 18.06 | Providing and fixing 600mm x 600mm square Heavy duty Composite FRP grating covers with frame for inspection chamber / manhole / gulley trap/ over storm water drain and other required places manufactured by K.K.Manholes or approved make etc. all complete as directed by Engineer In-Charge. | 50.00 | 9,962.00 | Nos | 4,98,100.00 |
| 18.07 | Providing and fixing factory made kerbstone of size 500 x 400 x 150 mm in M-25 grade of concrete using design mix minimum cement content as per relevant IS code for the moderate exposure condition excluding P.C.C (1:11/2:3) 100mm thick bedding, fixing the kerb stone over P.C.C bedding and grouting the joints with 1:3 cement mortar to the required line, level, curing, one coat of primer and two coat of synthetic enamel paint, excluding excavation etc. all complete as directed by Engineer In-Charge. (Note : Length of finished kerb edging shall be measured for payment). | 20.00 | 645.00 | Rmt | 12,900.00 |
| 18.08 | Providing and laying factory made chamfered edge Cement Concrete paver blocks in foot path, driveway & traffic parking etc. of any colour & 80mm thick of M-30 grade, approved design & pattern laid in required pattern over 50mm thick compacted bed of coarse sand, compacting and proper embedding/laying of inter locking paver blocks into the sand bedding layer through vibratory compaction by using plate vibrator, filling the joints with sand and cutting of paver blocks as per required size and pattern, finishing and sweeping extra sand, all complete as per manufacturer's specifications & direction of Engineer In-Charge. | 200.00 | 1,014.63 | Sqm | 2,02,926.00 |
| 18.09 | Providing and laying factory made chamfered edge Cement Concrete paver blocks in foot path, driveway & traffic parking etc. of any colour & 60 mm thick of M-35 grade, approved design & pattern laid in required pattern over 50mm thick compacted bed of coarse sand, compacting and proper embedding/laying of inter locking paver blocks into the sand bedding layer through vibratory compaction by using plate vibrator, filling the joints with sand and cutting of paver blocks as per required size and pattern, finishing and sweeping extra sand, all complete as per manufacturer's specifications & direction of Engineer In-Charge. | 200.00 | 935.51 | Sqm | 1,87,102.00 |
| 18.10 | Relaying old available paver blocks in specified pattern for floor and steps etc. including 50mm thick compacted bed of crushed sand in specified decorative designs with blocks of available colour and pattern including filling the joints with crushed sand, compacting blocks with mechanical means after laying and cleaning including shifting within campus etc. all complete as directed by Engineer In-charge. | 100.00 | 363.53 | Sqm | 36,353.00 |
| 18.11 | Providing and applying 2.5 mm thick road marking strips (retroreflective) of specified shade/ colour using hot thermoplastic material by fully/ semi automatic thermoplastic paint applicator machine fitted with profile shoe, glass beads dispenser, propane tank heater and profile shoe heater, driven by experienced operator on road surface including cost of material, labour, T&P, cleaning the road surface of all dirt, seals, oil, grease and foreign material etc. complete as per direction of Engineer-In-charge and accordance with applicable Specifications. | 100.00 | 625.92 | Sqm | 62,592.00 |

| | | | | | |
|-----------|--|--------|-------------|-----------------|---------------------|
| 18.12 | Painting road surface marking with two or more nos of coats to give uniform finish with ready mixed road marking paint conforming to as per relevant IS code, on bituminous surface in white/ yellow shade, including cleaning the surface of all dirt, scales, oil, grease and foreign material etc. all complete as directed by Engineer In-Charge. | 100.00 | 240.76 | Sqm | 24,076.00 |
| 18.13 | Providing and fixing signboards with 3mm thick ACP sheet & radium sticker background including pasting, computerized designing & radium sticker cutting and pasting, fixing etc. all complete as directed by Engineer In-Charge. | 20.00 | 4,924.00 | Sqm | 98,480.00 |
| | | | | Total 18 | 18,76,146.50 |
| 19 | Hiring charges | | | | |
| 19.01 | Hire charges for providing poclain for cutting and leveling the heaps of soil, for desilting / widening/deepening the kachha nallah /drains including necessary labour, operator, fuel etc. excavating, shifting, spreading and leveling the soil / debris at low lying area along the alignment of the proposed path using the machinery etc. all complete as directed by Engineer In-charge. | 10.00 | 3,586.00 | Per Hr. | 35,860.00 |
| 19.02 | Hire charges for providing J.C.B for cutting and leveling the heaps of soil, for desilting / widening/deepening the kachha nallah /drains including necessary labour, operator, fuel etc. excavating, shifting, spreading and leveling the soil / debris at low lying area using the machinery etc. all complete as directed by Engineer In-charge. | 10.00 | 1,286.00 | Per Hr. | 12,860.00 |
| 19.03 | Hiring charge of roller 8 to 10 ton capacity for rolling and levelling in various locations in IITB campus. The hiring charges are inclusive of wages of roller driver, cleaner, diesel/ oil, incidentals etc, payment will be given for the actual period of roller operated and no breaks will be considered for payment etc. all complete as directed by Engineer In-charge. | 100.00 | 1,167.00 | Per Hr. | 1,16,700.00 |
| 19.04 | Hire charges for crane for shifting material as per the requirement and condition including necessary labour, operator, fuel etc. without damaging the lifted material etc. all complete as directed by Engineer In-charge. | 100.00 | 14,950.00 | Per Hr. | 14,95,000.00 |
| 19.05 | Providing and erecting Mechanical lift upto 6 storey building ,shifting material and lowering down debris on hire basis with steel tubular H – frame double scaffolding with bracings to all heights till completion of entire work as directed by engineer in charge and removing the same as per directions of Engineer In Charge after completion of work. | 3.00 | 49,968.00 | Per month | 1,49,904.00 |
| 19.06 | Providing and erecting Mechanical lift for building 7 to 16 storey building ,shifting material and lowering down debris on hire basis with steel tubular H – frame double scaffolding with bracings to all heights till completion of entire work as directed by engineer in charge and removing the same as per directions of Engineer In Charge after completion of work. | 3.00 | 62,905.00 | Per month | 1,88,715.00 |
| 19.07 | Providing and Erecting electric operated suspension construction cradle (Gandola) for a period of one month at any height as per site requirement for maintenance and repair works by well trained operators / workers with proper safety precautions including transportation, lifting, shifting, third party testing and operator cost etc all complete as directed by Engineer Incharge. | 2.00 | 1,00,050.00 | Per month | 2,00,100.00 |
| | | | | Total 19 | 21,99,139.00 |
| 20 | Miscellaneous /special items | | | | |

| | | | | | |
|-------|---|--------|----------|----------|-------------|
| 20.01 | Providing and erecting 2.00 metre high temporary barricading at site; each panel of size 2.50mx2.00m made of 40x40x6mm angle iron or 50x50x3mm hollow MS tube posts/horizontal members/bracings covered with 1.63mm thick MS sheet. The sheet shall be fixed with 30x5mm MS flat by suitable welding/riveting. The panels shall be made so that gap of 50cm above the ground is available making overall height as 2.5m. MS channel ISLC 75 @ 5.70 kg/m, 50cm long shall be provided at the bottom having oval shaped holes of size 50x25mm at both ends with 50cm long MS angle 40x40x6mm bracing. Suitable arrangement shall be made to fix the barricading to avoid from overturning by providing 250mm long expansion fasteners at both ends. The work shall be executed as per drawing/direction of Engineer-in-Charge which includes writing and painting, arrangement for traffic diversion such as traffic signals during construction at site for day and night, glow lamps, reflective signs, marking, flags, caution tape as directed by the Engineer-in-Charge. The barricading provided shall be retained in position at site continuously i/c shifting of barricading from one location to another location as many times as required during the execution of the entire work till its completion. Rate include its maintenance for damages, painting, all incidentals, labour materials, equipments and works required to execute the job. The barricading shall not be removed without prior approval of Engineer-in-Charge. (Note :- One time payment shall be made for providing barricading from start of work till completion of work i/c shifting. The barricading provided shall remain to be the property of the contractor on completion of the work) | 50.00 | 2,836.99 | Rmt | 1,41,849.50 |
| 20.02 | Fixing temporary partition during execution of work at site made up of plywood/ GI sheet including vertical support of props/teakwood/ plywood, transportation, lead, lift, removing the partition after completion of work etc. completed as directed by Engineer In-charge. | 200.00 | 379.00 | Nos | 75,800.00 |
| 20.03 | Removing the Electrical fittings, wires and electrical conduit pipes from the ceiling surface and Staircases area during the repairing works and keeping aside with proper screws, nuts and bolts and Re-fixing the same with proper fittings with screws and anchor bolts after the completion of repairing works etc. all complete as directed by Engineer In-charge. | 200.00 | 420.00 | Nos | 84,000.00 |
| 20.04 | Providing Holes/Sleeve in wall 75 mm dia for Air conditioning pipes PVC pipe of 75 mm to be inserted in the said hole. End caps on both sides to be provided. A minimal slope to be maintained towards outside to prevent any leakage etc. all complete as directed by Engineer In-charge. | 30.00 | 2,467.00 | Nos. | 74,010.00 |
| 20.05 | Providing and fixing 200mm x200mm SS 304 grade mosquito proof/flyproof wire mesh in double layer to the water tank overflow pipes/vent pipes, fixing the same with M.S. wires properly etc. including removing the existing damaged mosquito mesh and taking away the same out of IIT Campus etc all complete as directed by Engineer In-charge. | 500.00 | 107.00 | Per No. | 53,500.00 |
| 20.06 | Providing and fixing HDPE green Braided, Knotted construction safety net of 6mm thickness with mesh size of 3 – 4 inch square to ceiling in various class rooms, With inner lay mesh of Delux Mono Knitted net, Border / Tie cord rope shall be of 12 mm dia Polypropylene (PP) (rope of M/s. Kwaliti Nets Mfg Company or approved make of specified type) The safety net to be fixed as per the size required at site. The cost includes all supplying & fixing the materials with labourers, fixing hooks, scaffolding & ropes required for tying / fixing etc all complete as directed by Engineer-In-charge. | 200.00 | 356.00 | Sqm | 71,200.00 |
| 20.07 | Providing stainless steel signboard and name board plate (18 gauge) and fixing the same over walls and doors using stainless steel stud of approved quality etc. completed as directed by Engineer-In-charge. | 200.00 | 18.00 | sq. inch | 3,600.00 |
| 20.08 | Providing and covering the floor with protection rubber mat of required size 12mm thickness and taking away after completion of work etc. all complete as directed by Engineer In-charge. | 100.00 | 345.00 | Sqm | 34,500.00 |
| 20.09 | Providing core cutting of any size and depth in reinforcement concrete or any other materials etc. all complete as directed by Engineer In-charge. | 30.00 | 2,000.00 | Nos | 60,000.00 |
| 20.10 | Dewatering the excavated trenches and pools of water in the building area by using pumps and other devices, including disposing of the water to a safe distance etc. all complete as directed by Engineer In-charge. | 200.00 | 241.00 | Per Hr. | 48,200.00 |
| 20.11 | Lowering down the debris of the existing waterproofing treatment from the terrace by head load without causing dust nuisance and damages to structure, stacking the same upto 50m beyond the building area as and where directed including cleaning the site etc. all complete as directed by Engineer In-charge. | 200.00 | 361.00 | Cum | 72,200.00 |

| | | | | | |
|--|--|--------|----------|-----------------|---------------------|
| 20.12 | Providing and fixing FRP grills of approved brand, design and required size, manufactured by Ravalson FRP Industries or equivalent brand for multi storied building upto 16 th story height, work includes removing the existing damaged grills lowering down and stacking aside at ground floor, fixing the new grills in position (duct area) with all tools & required fixtures, bonding additive, working platform etc. all complete as directed by Engineer In-charge. | 200.00 | 3,571.00 | sqm | 7,14,200.00 |
| | | | | Total 20 | 14,33,059.50 |
| Total Amount (1 to 20 sections) | | | | | 14,16,96,383.85 |
| Say Rs. | | | | | |
| At Par | | | | | |
| (In words.%) (In figures.....%) Above | | | | | |
| (In words.%) (In figures.....%) Below | | | | | |
| Gross Total Amount Rs. | | | | | |
| CGST 9% | | | | | |
| SGST 9% | | | | | |
| Net Total Amount Rs. | | | | | |
| Say Rs. | | | | | |

(Rupees in words _____)

Special Condition :

1. Recovery of scrap material will be done in respective item at the rates mention below -

- A) Wood scrap – Rs. 25.00 per kg
- B) Aluminium scrap – Rs. 150.00 per kg
- C) MS Steel / Tor steel & structural steel – Rs. 28.00 per kg
- D) Kitchen trolley – Rs. 45.00 per kg
- E) GI / CI Pipe – Rs. 20.00 per kg
- F) Brass taps of all types – Rs. 120.00 per kg

2. Existing passenger lifts should not be use for shifting construction materials or debris.

3. Manufacturer & brand list for various items should be supplied as per approved list.

4. Safety precautions should be strictly followed while repair construction work.

(Rates for all items & net amount of total to be filled with figure and words, Percentage for above/below in words as well as in figures should be mention clear & correct. If it is not done, it will be assumed as incomplete tender & tender opening committee will reject your offer at the time of opening of tenders/quotations).

1) If you will engage labourer 20 or more any day, you have to get labour licence as per contract Regulation & Abolition Act 1970 Rule 19/1, and also, you have to keep all such record for inspection to the Principal Employer. If you will engage labour up to 10 Nos. per day, you have to file returns after completion of work as per Building & Construction Act to the Office of Regional Labour Commissioner (Central), Sion, Mumbai.

2) This schedule of work is legal documents of Estate Office, IIT Bombay and directed to enlisted contractors to get the copy of schedule of work to fill the rates and can submit his offer. No changes in schedule of work is allowed i.e. item description, units, quantity, rates, etc. If noticed his offer will be rejected and the contractor will be blacklisted or any other strict action will be initiated against him.

3) This work is to be executed as per the clauses mentioned in the tender document signed by you. In addition to the existing safety clause of the tender documents a penalty of Rs. 5,000/- (per case) will be recovered from the bills of the particular work, in case any safety violations are noticed.

4) Tender will be rejected if white ink applied for correction in the schedule of work.

5) Taxes as per government notification time to time.

6) Contractor must pay GST Taxes to concern authority within 30 days time limit after receipt of payment from IIT Bombay & said record must be submitted to IIT Bombay Accounts Section, otherwise action will be taken as deemed fit.

7) If any malpractices / fraud / negligent professional behaviour or any discrepancy / inconsistency / disparity / deviation / disagreement / dissimilarity / mismatch noticed, their contract will be terminated by issuing one month notice by following legal procedure and will be blacklisted and informed to all Government Authorities and Organisations.

sd/-
Superintending Engineer (I/C)

Signature of the Contractor
Name & Address in full