

| Schedule Of Quantities for Proposed Construction of Seva Niketan / Service Tower Building of KEM Hospital, Mumbai | | | | | | | | | | | |
|---|------------------|---|------|--------------|-------|--------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|---------------------------------|
| Sr. No. | Item Code | Item Description | Unit | Rate | Qty | Amount | 2nd year-5% on material cost | 3rd year-6% on material cost | 4th year-7% on material cost | 5th year-8% on material cost | 6th year-8% on material cost |
| 1 | R2-ME-4-11-d | Inverter of 5KVA ,single phase input and | Nos | 3,04,146.00 | 1 | 3,04,146.00 | 15,207.30 | 18,248.76 | 21,290.22 | 24,331.68 | 24,331.68 |
| 2 | R2-ME-12-14-d | 3 Ph input & 3 Ph output 40 kVA fully microprocessor based true online double conversion UPS system with SMF batteries suitable for 1/2 hrs along with necessary battery racks & interconnections & UPS to battery bank cables. | Nos | 7,64,634.00 | 1 | 7,64,634.00 | 38,231.70 | 45,878.04 | 53,524.38 | 61,170.72 | 61,170.72 |
| 3 | MA-R2-ME-160 | D.G.SET WITH PANEL (SP-ME-TS-31) | | | | | | | | | |
| 4 | R2-ME-6-17-p | 400KVA | Nos. | 3116978 | 1.00 | 31,16,978.00 | 1,55,848.90 | 1,87,018.68 | 2,18,188.46 | 2,49,358.24 | 2,49,358.24 |
| 5 | R2-ME-6-18 | SITC OF AUTOMATIC MAINS FAILURE PANEL SUITABLE TO DG SET | | | | | | | | | |
| 6 | R2-ME-6-18-q | 400KVA | Nos. | 270495 | 1.00 | 2,70,495.00 | 13,524.75 | 16,229.70 | 18,934.65 | 21,639.60 | 21,639.60 |
| 7 | RBH18-ELEC-FA-01 | SITC OF 11KV VCB PANEL PANEL WITH 2 INCOMERS & 3 OUTGOING BRAKERS | Nos | 2583468 | 1.00 | 25,83,468.48 | 1,29,173.42 | 1,55,008.11 | 1,80,842.79 | 2,06,677.48 | 2,06,677.48 |
| 8 | RBH18-ELEC-FA-49 | SITC AND CONNECTION OF FP INTERNALLY EARTHED AL. BUS DUCT 800 A FP + IE,35KA - SANDWICH TYPE. | Mtr | 28,255.28 | 80.00 | 22,60,422.40 | 1,13,021.12 | 1,35,625.34 | 1,58,229.57 | 1,80,833.79 | 1,80,833.79 |
| 9 | FAIR-01 | Supplying, installation, testing and commissioning 3 phase, 11/0.433 kV, 50 Hz., 630 kVA, indoor type, vaccum cast coil (VCC) dry type cast resin transformer | No. | 12,28,240.00 | 2.00 | 24,56,480.00 | 1,22,824.00 | 1,47,388.80 | 1,71,953.60 | 1,96,518.40 | 1,96,518.40 |

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| | | PANELS | | | | | | | | | |
| | | Supplying, transporting to project site, installing and commissioning distribution wall mounting panel incorporating MCCB, MCBs, Surge protector, Isolator, indicating lamps, Copper busbars etc. as per the details as shown in the Respective Drawing & shall incorporate the following. Note:- Panel shall be IP 42 rating unless it is not specified in the SLD | | | | | | | | | |
| 10 | FAIR-2 | MAIN LT PANEL | No. | 7,34,055.00 | 1.00 | 7,34,055.00 | 36,702.75 | 44,043.30 | 51,383.85 | 58,724.40 | 58,724.40 |
| | | Incoming: | | | | | | | | | |
| | | 2 Nos 1000A TPN ACB(50kA), MDO Type with Microprocessor release, | | | | | | | | | |
| | | Buscoupler - 1000A 4P, ACB (50kA), Manual Fixed type | | | | | | | | | |
| | | Busbar: | | | | | | | | | |
| | | 1 Set 2000A TPN 36kA AL busbar | | | | | | | | | |
| | | R-Y-B LED indicating lamps with protective MCB- 1 set | | | | | | | | | |
| | | 2 Set - Digital Load Managers with RS 485 communication port with 3 suitable ratio CTs with Class-1 accuracy and MCB for protection. | | | | | | | | | |
| | | Outgoing: | | | | | | | | | |
| | | 1 No. 630A TPN MCCB (36kA) | | | | | | | | | |
| | | 2 Nos. 400A TPN MCCB (36kA) | | | | | | | | | |
| | | 5 Nos. 250A TPN MCCB (36kA) | | | | | | | | | |
| | | 2 Nos. 200A TPN MCCB (36kA) | | | | | | | | | |
| | | 13 Nos. of 63A TPN MCB,10KA | | | | | | | | | |
| | | 10 Nos. of 32A TPN MCB,10KA | | | | | | | | | |

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| 11 | FAIR-3 | COMMON EMG PANEL | No. | 2,64,630.00 | 1.00 | 2,64,630.00 | 13,231.50 | 15,877.80 | 18,524.10 | 21,170.40 | 21,170.40 |
| | | Incoming: | | | | | | | | | |
| | | 1 No. 400A TPN MCCB (36kA) | | | | | | | | | |
| | | Busbar: | | | | | | | | | |
| | | 1 Set 500A TPN 36kA AL busbar | | | | | | | | | |
| | | R-Y-B LED indicating lamps with protective MCB- 1 set | | | | | | | | | |
| | | 1 Set - Digital Load Managers with RS 485 communication port with 3 suitable ratio CTs with Class-1 accuracy and MCB for protection. | | | | | | | | | |
| | | Outgoing: | | | | | | | | | |
| | | 1 No. 320A TPN MCCB (36kA) | | | | | | | | | |
| | | 4 No. 100A TPN MCCB (36kA) | | | | | | | | | |
| | | 1 No.80A TPN MCCB (36kA) | | | | | | | | | |
| | | 8 no. of 63A TPN MCB,10KA | | | | | | | | | |
| | | 3 no. of 40A TPN MCB,10KA | | | | | | | | | |
| | | 1 no. of 25A TPN MCB,10KA | | | | | | | | | |
| | | 5 no. of 25A SP MCB,10KA | | | | | | | | | |
| 12 | FAIR-4 | HVAC PANEL | No. | 70,099.00 | 1.00 | 70,099.00 | 3,504.95 | 4,205.94 | 4,906.93 | 5,607.92 | 5,607.92 |
| | | Incoming: | | | | | | | | | |
| | | 1 No. 250A TPN MCCB (25kA) | | | | | | | | | |
| | | Busbar: | | | | | | | | | |
| | | 1 Set 320A TPN 36kA AL busbar | | | | | | | | | |
| | | R-Y-B LED indicating lamps with protective MCB- 1 set | | | | | | | | | |
| | | 1 Set - Digital Load Managers with RS 485 communication port with 3 suitable ratio CTs with Class-1 accuracy and MCB for protection. | | | | | | | | | |
| | | Outgoing: | | | | | | | | | |
| | | 13 no. of 63A TPN MCB,10KA | | | | | | | | | |
| | | 1 no. of 40A TPN MCB,10KA | | | | | | | | | |
| | | 2 no. of 25A TPN MCB,10KA | | | | | | | | | |

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|---|-----------|--|------|-----------|------|-----------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|---------------------------------|
| Sr. No. | Item Code | Item Description | Unit | Rate | Qty | Amount | 2nd year-5% on material cost | 3rd year-6% on material cost | 4th year-7% on material cost | 5th year-8% on material cost | 6th year-8% on material cost |
| 13 | FAIR-5 | 40KVA UPS PANEL | No. | 63,390.00 | 1.00 | 63,390.00 | 3,169.50 | 3,803.40 | 4,437.30 | 5,071.20 | 5,071.20 |
| | | Incoming: | | | | | | | | | |
| | | 1 No. 80A TPN MCCB (25kA) | | | | | | | | | |
| | | Busbar: | | | | | | | | | |
| | | 1 Set 100A TPN 36kA AL busbar | | | | | | | | | |
| | | R-Y-B LED indicating lamps with protective MCB- 1 set | | | | | | | | | |
| | | 1 Set - Digital Load Managers with RS 485 communication port with 3 suitable ratio CTs with Class-1 accuracy and MCB for protection. | | | | | | | | | |
| | | Outgoing: | | | | | | | | | |
| | | 2 no. of 32A TPN MCB,10KA | | | | | | | | | |
| | | 3 no. of 25A TPN MCB,10KA | | | | | | | | | |
| | | 2 no. of 63A SP MCB,10KA | | | | | | | | | |
| | | 8 no. of 25A SP MCB,10KA | | | | | | | | | |
| 14 | FAIR-6 | FLOOR PANEL-1 | No. | 74,571.00 | 1.00 | 74,571.00 | 3,728.55 | 4,474.26 | 5,219.97 | 5,965.68 | 5,965.68 |
| | | Incoming: | | | | | | | | | |
| | | 1 No. 200A TPN MCCB (25kA) | | | | | | | | | |
| | | Busbar: | | | | | | | | | |
| | | 1 Set 250A TPN 36kA AL busbar | | | | | | | | | |
| | | R-Y-B LED indicating lamps with protective MCB- 1 set | | | | | | | | | |
| | | 1 Set - Digital Load Managers with RS 485 communication port with 3 suitable ratio CTs with Class-1 accuracy and MCB for protection. | | | | | | | | | |
| | | Outgoing: | | | | | | | | | |
| | | 6 no. of 63A TPN MCB,10KA | | | | | | | | | |
| | | 1 no. of 40A TPN MCB,10KA | | | | | | | | | |
| | | 9 no. of 25A TPN MCB,10KA | | | | | | | | | |

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|---|-----------|--|------|-------------|------|-------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|---------------------------------|
| Sr. No. | Item Code | Item Description | Unit | Rate | Qty | Amount | 2nd year-5% on material cost | 3rd year-6% on material cost | 4th year-7% on material cost | 5th year-8% on material cost | 6th year-8% on material cost |
| 15 | FAIR-7 | FLOOR PANEL-2 | No. | 1,19,290.00 | 1.00 | 1,19,290.00 | 5,964.50 | 7,157.40 | 8,350.30 | 9,543.20 | 9,543.20 |
| | | Incoming: | | | | | | | | | |
| | | 1 No. 250A TPN MCCB (25kA) | | | | | | | | | |
| | | Busbar: | | | | | | | | | |
| | | 1 Set 320A TPN 36kA AL busbar | | | | | | | | | |
| | | R-Y-B LED indicating lamps with protective MCB- 1 set | | | | | | | | | |
| | | 1 Set - Digital Load Managers with RS 485 communication port with 3 suitable ratio CTs with Class-1 accuracy and MCB for protection. | | | | | | | | | |
| | | Outgoing: | | | | | | | | | |
| | | 1 No.125A TPN MCCB (25kA) | | | | | | | | | |
| | | 15 no. of 63A TPN MCB,10KA | | | | | | | | | |
| | | 3 no. of 40A TPN MCB,10KA | | | | | | | | | |
| | | 8 no. of 25A TPN MCB,10KA | | | | | | | | | |
| | | | | | | | | | | | |
| | B | CHANGEOVER SWITCHES (SP-ME-TS-3) | | | | | | | | | |

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|---|--------------|--|----------|-----------|-----|----------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|---------------------------------|
| Sr. No. | Item Code | Item Description | Unit | Rate | Qty | Amount | 2nd year-5% on material cost | 3rd year-6% on material cost | 4th year-7% on material cost | 5th year-8% on material cost | 6th year-8% on material cost |
| | R2-ME-1-4 | Change Over Switch as per IEC 60947 Part 1 & 3 / IS 13947 part 1 & 3 to be enclosed in CRCA Sheet steel 18/20 SWG standard with powder coated, rust protected(if 16/18 SWG/1.62/1.21 mm Nost avilable) with PVC insulated cu wires for interconnection, bus bar, earthing terminal, and all other ccessories to complete the work. Changeover switch hall be wall/column mounted. Enclosure shall be weather proof. Colour shade shall be as per IS 5. MS angle iron frame to mount the unit is included.IP for enclosure shall be IP43 for Indoor unit and IP 55 for Outdoor unit | | | | | | | | | |
| 16 | R2-ME-1-4-q | 400 Amp. 415V FP Changeover Switch wi | No. | 44,035.00 | 1 | 44,035.00 | 2,201.75 | 2,642.10 | 3,082.45 | 3,522.80 | 3,522.80 |
| | | APFC Panel (SP-ME-TS- 2) | | | | | | | | | |
| | R2-ME-1-29 | APFC Panel | | | | | | | | | |
| 17 | R2-ME-1-29-a | Automatic Power Factor Corrector Panel (APFC) above 30KVAR only.(200 KVAR*2Nos) | Per KVAR | 4,322.00 | 400 | 17,28,800.00 | 86,440.00 | 1,03,728.00 | 1,21,016.00 | 1,38,304.00 | 1,38,304.00 |
| | | TOTAL-2 | | | | 1,48,55,493.88 | 7,42,775.00 | 8,91,330.00 | 10,39,885.00 | 11,88,440.00 | 11,88,440.00 |
| | | Total Cost of CSMC for Electrical Works | | | | | | | | | 50,50,870.00 |

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| Sr. No. | Item Code | Item Description | Unit | Rate | Qty | Amount | 2nd year-5% on material cost | 3rd year-6% on material cost | 4th year-7% on material cost | 5th year-8% on material cost | 6th year-8% on material cost |
| Water Pumps | | | | | | | | | | | |
| Sr No | Item Code | Discription | Unit | Rate | Quantit y | Amount | 2nd year-5% on material cost | 3rd year-6% on material cost | 4th year-7% on material cost | 5th year-8% on material cost | 6th year-8% on material cost |
| 18 | R2-ME-6-5- p | Self priming pump sets: (Flushing) | Nos | 62824 | 2 | 1,25,648.00 | 6,282.40 | 7,538.88 | 8,795.36 | 10,051.84 | 10,051.84 |
| 7.5 H.P., 2 stage, single phase/ 3 ph motor, with head of (10 – 70 Mtr.) giving discharge upto 410 lpm. (80x65mm) | | | | | | | | | | | |
| Pump body: Cast Iron, Impeller: SS316, Shaft SS410 | | | | | | | | | | | |
| 19 | R2-ME-6-5- s | Self priming pumpsets: (Domestic) | Nos | 130050 | 2 | 260100 | 13,005.00 | 15,606.00 | 18,207.00 | 20,808.00 | 20,808.00 |
| 10 H.P., 2 stage, single phase/ 3 ph motor, with head of (10 – 90 Mtr.) giving discharge upto 410 lpm.(50x40mm) | | | | | | | | | | | |
| Pump body: Cast Iron, Shaft SS410, Impeller: Polypropylene | | | | | | | | | | | |
| 20 | R2-ME-6- 19-a | Automatic pump control panel | Nos | 43923 | 2 | 87846 | 4,392.30 | 5,270.76 | 6,149.22 | 7,027.68 | 7,027.68 |
| 21 | R2-ME-1- 22-c | Automatic Star Delta Starter for 5 H.P to 15 H.P | Nos | 8817 | 4 | 35268 | 1,763.40 | 2,116.08 | 2,468.76 | 2,821.44 | 2,821.44 |
| Total Of Water Pumps | | | | | | 3,85,748.00 | 25,443.10 | 30,531.72 | 35,620.34 | 40,708.96 | 40,708.96 |
| Total CSMC for Pumps | | | | | | 1,73,013.08 | | | | | |
| Total cost of CSMC for Electrical and Water Pu | | | | 52,23,883.08 | | | | | | | |

| Fire Alarm system CSMC Sheet | | | | | | | | | | | |
|------------------------------|---------------|---|------|-------------|----------|-------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|
| Sr. No. | Item Code | Item Description | Unit | Rate | Quantity | Amount (Rs) | 2nd year-5% on material cost | 3rd year-6% on material cost | 4th year-7% on material cost | 5th year-8% on material cost | 6th year-8% on material cost |
| | | Fire Alarm System (SP-ME-TS-65) | | | | | | | | | |
| | R2-ME-15-32 | Addressable Fire Alarm System | | | | | | | | | |
| | R2-ME-15-32-a | Supply, Installation, testing & commissioning of addressable 2 loop main fire alarm electronic control panel, expendable up to 4 loop & having maximum 250 devices (any combination detectors plus devices) per loop & Audio/ Visual alarm complete as per IS: 2189 specification - modular type front operated with interlocking door arrangement totally enclosed dust and vermin proof for indoor type applications. | Nos | 1,78,313.00 | 1 | 1,78,313.00 | 8,915.65 | 10,698.78 | 12,481.91 | 14,265.04 | 14,265.04 |
| | R2-ME-15-32-b | Supply, Installation, testing & commissioning of expandable Loop card for main fire alarm electronic control panel, shall support 254 devices both detectors and modules and shall support both class 'A' & class 'B' wiring. | Nos | 10,581.00 | 1 | 10,581.00 | 529.05 | 634.86 | 740.67 | 846.48 | 846.48 |
| | R2-ME-15-32-d | Supply, Installation, testing & commissioning of Intelligent Photoelectric Smoke Detector along with mounting box & termination glands. | Nos | 2,123.00 | 470 | 9,97,810.00 | 49,890.50 | 59,868.60 | 69,846.70 | 79,824.80 | 79,824.80 |

| | | | | | | | | | | |
|------------------|---|-----|----------|-----|-------------|-----------|-----------|-----------|-----------|-----------|
| R2-ME-15 32-e | Supply, Installation, testing & commissioning of Intelligent Heat Detector along with mounting box & termination glands. | Nos | 3,256.00 | 4 | 13,024.00 | 651.20 | 781.44 | 911.68 | 1,041.92 | |
| R2-ME-15 32-f | Supply, Installation, testing & commissioning of Intelligent multi- criteria Detector along with mounting box & termination glands. | Nos | 2,541.00 | 6 | 15,246.00 | 762.30 | 914.76 | 1,067.22 | 1,219.68 | 1,219.68 |
| R2-ME-15 32-g | Supply, Installation, testing & commissioning of Strobe Lights along with mounting box & termination glands. | Nos | 6,023.00 | 35 | 2,10,805.00 | 10,540.25 | 12,648.30 | 14,756.35 | 16,864.40 | 16,864.40 |
| R2-ME-15 32-h | Supply, Installation, testing & commissioning of Addressable Manual call point/ station with mounting back box | Nos | 3,284.00 | 35 | 1,14,940.00 | 5,747.00 | 6,896.40 | 8,045.80 | 9,195.20 | 9,195.20 |
| R2-ME-15 32-j | Supply, Installation, testing & commissioning of remote response indicator | Nos | 62.00 | 170 | 10,540.00 | 527.00 | 632.40 | 737.80 | 843.20 | 843.20 |
| R2-ME-15 32-k | Supply, Installation, testing & commissioning of Isolator Module along with mounting box & termination glands. | Nos | 2,761.00 | 30 | 82,830.00 | 4,141.50 | 4,969.80 | 5,798.10 | 6,626.40 | 6,626.40 |
| R2-ME-15 32-l | Supply, Installation, testing & commissioning of Addressable control Relay module with required accessories along with junction box, glands and terminators (For AC trip off, Access trip off, PA system, sprinkler flow switch, lift interface, sounder, fire fighter & telephone jack) | Nos | 7,326.00 | 80 | 5,86,080.00 | 29,304.00 | 35,164.80 | 41,025.60 | 46,886.40 | 46,886.40 |
| | Fire Fighter's 2-way Talk Back System | | | | | | | | | |

| | NH-FF-F29 | S/I/T/C Of Addressable Telephone Jacks with necessary Control Module and required Accessories Including GI Junction Box And Glands. UL Listed. | Nos. | 4,580.00 | 34 | 1,55,720.00 | 7,786.00 | 9,343.20 | 10,900.40 | 12,457.60 | 12,457.60 |
|--|--|--|------|-------------|-----------|---------------------|-------------|-------------|-------------|-------------|--------------------|
| | NH-FF-F30 | S/I/T/C Of Portable FFT Handset and required Accessories. UL Listed. | Nos. | 7,700.00 | 1 | 7,700.00 | 385.00 | 462.00 | 539.00 | 616.00 | 616.00 |
| GRAND TOTAL | | | | | | 23,83,589.00 | 1,19,179.45 | 1,43,015.34 | 1,66,851.23 | 1,90,687.12 | 1,89,645.20 |
| Total Of CSMC Works Fire Alarm System | | | | | | | | | | | 8,09,378.34 |
| Project - KEM Hospital, Mumbai | | | | | | | | | | | |
| Sub:- CSMC for Fire Fighting Works - Service Tower Building | | | | | | | | | | | |
| CSMC Schedule of quantities and rates. | | | | | | | | | | | |
| SR. NO. | DESCRIPTION | Qty. | Unit | RATE RS.PS. | PER | AMOUNT RS. PS. | | | | | |
| | Comprehensive service & maintenance charges for main pump, booster pump, jockey pump & control panel along with allied works etc after expiry of 1 year of guarantee period. (Inclusive of all spares & consumables) | | | | | 1319388.00 | | | | | |
| 1 | First Year | | | | | Free | | | | | |
| FAIR 1 | Second Year 5% | 1 | job | 105551.04 | 5.00% | 65970.00 | | | | | |
| FAIR 2 | Third Year 6% | 1 | job | 105551.04 | 6.00% | 79164.00 | | | | | |
| FAIR 3 | Fourth Year 7% | 1 | job | 105551.04 | 7.00% | 92358.00 | | | | | |
| FAIR 4 | Fifth Year 8% | 1 | job | 105551.04 | 8.00% | 105552.00 | | | | | |
| FAIR 5 | Sixth Year 8% | 1 | job | 105551.04 | 8.00% | 105552.00 | | | | | |
| | | | | | Total Rs. | 448596.00 | | | | | |
| | | | | | Say in Rs | 448596.00 | | | | | |
| Total CSMC cost of Fire Fighting and Fire alarm System | | | | | | 12,57,974.34 | | | | | |

KEM Hospital CSMC ELV

| Sr. No. | Item Code | Item Description | Unit | Rate | Qty | Amount | 2nd year-5% on material cost | 3rd year-6% on material cost | 4th year-7% on material cost | 5th year-8% on material cost | 6th year-8% on material cost |
|---------|--------------------|---|------|--------|-----|---------|------------------------------------|------------------------------------|---------------------------------|------------------------------------|------------------------------------|
| | R2-ME-12-10 | SITC OF PUBLIC ADDRESS SYSTEM | | | | | | | | | |
| | R2-ME-12-10-p | Supply and installation of 6W recessed ceiling mount speaker with VARIABLE VOLTAGE TAPPING OF 6/3 watt | Nos | 1180 | 150 | 177000 | 8850 | 10620 | 12390 | 14160 | 14160 |
| | R2-ME-12-10-q | Supply and installation of 10W recessed ceiling mount speaker with VARIABLE VOLTAGE TAPPING OF 10/5 watt | Nos | 1726 | 2 | 3452 | 173 | 207 | 242 | 276 | 276 |
| | R2-ME-12-13-m | Supply, Installation, Testing & Commissioning of IP Dome camera with 1/2.8" CMOS, Progressive Scan, HD 720P Horizontal Resolution, Dual H.264 streaming, 25 FPS, 2.8mm-10mm varifocal auto iris lens, 0.01 lux, Tamper detection, Wide dynamic Range, 3D Noise reduction, PoE & standard 12VDC/24VAC power input, Indoor surface mount enclosure, Mounted on True Ceiling / False ceiling as per site requirement (including required accessories), UL Listed Or Equivalent. Camera Shall be ONVIF compliant. | Nos | 35977 | 84 | 3022068 | 151103 | 181324 | 211545 | 241765 | 241765 |
| | R2-ME-12-13-r | Design, Supply, testing, installation and commissioning of modular 64 channel 1080P NVR, Recording: 1920X1080P, 15 FPS, 30 days recording, 24 hours/day; Real time monitoring with 25 FPS. Hard disc : 8 SATA III Ports, Each 6TB, up to 48TB, 1 eSATA port, Disk array: Support RAID 0/1/5/6/10, Two no's of RJ-45 10/100/1000 Mbps self adaptive Ethernet interface, RS 232, RS 485, keyboard interfaces, VGA/HDMI compatible, 2nos front USB 2.0 & 1 no at rear USB 2.0 compatible & 16 TB hard disc and as per storage configuration contractor shall consider the separate hard discs. | Nos | 146871 | 3 | 440613 | 22031 | 26437 | 30843 | 35249 | 35249 |
| | R2-ME-12-13-t | Supply, Installation, Testing & commissioning of 42 inches LED monitor, Full HD Resolution, Backlight LED, Brightness : 400 NITS min., Contrast : 1200 : 1 or better., Power supply : 230 ±10%, 50 Hz. | Nos | 73859 | 4 | 295436 | 14772 | 17726 | 20681 | 23635 | 23635 |
| | R2-ME-12-14 | UPS | | | | 0 | 0 | 0 | 0 | 0 | 0 |

| | | | | | | | | | | | |
|----------------------------|---|-----|-------|----|--------|---------|--------|--------|--------|----------------|--------|
| R2-ME-12-14-a | Supply, Installation, testing, commissioning, performance demonstration of 2 KVA UPS true online with 1 phase input, 1 phase output with back up batteries for 2 Hours backup along with rack & connectors. | Nos | 87908 | 1 | 87908 | 4395 | 5274 | 6154 | 7033 | 7033 | |
| R2-ME-12-15 | Access Control System : Supply, Installation, Testing & Commissioning of following equipments for access control system. | | | | 0 | | | | | | |
| R2-ME-12-15-a | Supply, Installation, Testing & commissioning of Proximity card reader suitable for mounting on metal surface/metal frames/ wooden frames / wall or as required based on site conditions including all accessories. | Nos | 10744 | 20 | 214880 | 10744 | 12893 | 15042 | 17190 | 17190 | |
| R2-ME-12-15-e | Supply, Installation, Testing & Commissioning of 2 Reader Access Control panel with required Power supply unit & Enclosure and Shall maintain a minimum of 25,000 access identity information and 1,00,000 transactions as minimum. | Nos | 47698 | 1 | 47698 | 2385 | 2862 | 3339 | 3816 | 3816 | |
| GRAND TOTAL | | | | | | 4289055 | 214453 | 257343 | 300234 | 343124 | 343124 |
| Total of CSMC Works | | | | | | | | | | 1458278 | |

Project :SERVICE TOWER/OFFICE BUILDING AT KEM HOSPITAL

Client Name :MCGM

CSMC COST

| Sr. No. | Item | Description | Unit | Total Quantity | SITC | | CSMC Cost | | | | |
|------------|--------------|--|------|----------------|-------|---------|--------------------|--------------------|--------------------|--------------------|--------------------|
| | | | | | Rate | Amount | 1st Year After DLP | 2nd Year After DLP | 3rd Year After DLP | 4th Year After DLP | 5th Year After DLP |
| | | | | | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. |
| 1.0 | | AIR CONDITIONING | | | | | | | | | |
| 1.1 | | VRF OUTDOOR UNIT | | | | | | | | | |
| | R2-ME-9-10 | Supply, Installation, Testing & Commissioning of the VRF Outdoor Units - Outdoor units of the VRF system shall be compact air cooled type. All the compressors of the outdoor units must be hermetically sealed scroll type. Each module of outdoor unit must have at least 1 inverter compressor, suitable to operate at varying heat load proportional to indoor requirement. The outdoor units shall be suitable to operate within an ambient temperature range of – 5 Deg C to 43 Deg C, in cooling mode. The outdoor units must be suitable for up to 150 m refrigerant piping between outdoor unit & the farthest indoor units, total piping of 300 m for all the indoor units. Allowable level difference between outdoor unit & indoor units shall be 50 m in case of outdoor unit on top & 40 m in case of outdoor unit at bottom. Allowable level difference between various indoor units connected to one out door unit shall be up to 15 m. Back up operation, in case of failure of one of the compressors of outdoor unit, for single module outdoor units or failure of one of the modules in case of multiple module outdoor units shall be possible. The VRF/VRV outdoor unit shall always be supplying at least 33% of back up operation, of the full load capacity. The outdoor unit shall employ system of equal run time for all the compressors, inverter or on / off type, within each outdoor unit – Single Module or Multi Module | | | | | | | | | |
| 1.1.1 | R2-ME-9-10-h | 20 HP | Nos. | 6 | ##### | 3709416 | 1,85,470.80 | 2,22,564.96 | 2,59,659.12 | 2,96,753.28 | 2,96,753.28 |
| 1.1.2 | R2-ME-9-10-g | 18 HP | Nos. | 2 | ##### | 1171638 | 58,581.90 | 70,298.28 | 82,014.66 | 93,731.04 | 93,731.04 |
| 1.1.3 | R2-ME-9-10-f | 16 HP | Nos. | 1 | ##### | 537078 | 26,853.90 | 32,224.68 | 37,595.46 | 42,966.24 | 42,966.24 |
| 1.1.4 | R2-ME-9-10-d | 12 HP | Nos. | 4 | ##### | 1436752 | 71,837.60 | 86,205.12 | 1,00,572.64 | 1,14,940.16 | 1,14,940.16 |

| | | | | | | | | | | | |
|---------|--------------|--|------|----|--------|--------|-----------|-----------|-----------|-----------|-----------|
| 1.2 | | VRV INDOOR UNITS | | | | | | | | | |
| 1.2.1 | R2-ME-9-10-j | Supply,Installation, testing and commissioning of factory built Ceiling Suspended Treated Fresh Air units Double skin type with 43± 2 mm thick panels consisting of G.I casing of thickness 0.8 mm outside layer and 0.8 mm inside layer with zinc coating and polyurethane foam (PUF) insulation having density of 40 ± 2 kg/m ³ ,complete with backward curved fan with IP-20 VFD, with 8 row cooling coils,with starter panel IP 55 rated, cooling coil with aluminium finned copper tubes. Filter section having 50 mm thick pre filters, MERV-13 fine filter, IE-2, TEFC motor suitable for 415 +10% volts,50 Hz, 3 phase AC supply,drain connections with stainless steel drain pan (18 Ga) with insulation, necessary vibration isolation arrangement to avoid any vibration alongwith etc. complete as | | | | | | | | | |
| 1.2.1.1 | FAIR-08 | 2000 cfm, 12TR & 25 mm ESP | Nos. | 1 | 154989 | 154989 | 7,749.45 | 9,299.34 | 10,849.23 | 12,399.12 | 12,399.12 |
| 1.2.2 | R2-ME-9-11 | Supply,Installation,Testing & Commissioning of VRV Ceiling Suspended Ductable type indoor units- The IDU shall include pre filter, fan section & DX coil section. The unit shall be equipped with an electronic expansion valve, which can communicate with the VRF controller in the condensing unit. The housing of unit shall be light weight & powder coated galvanized steel. The unit shall have high static fan for Ductable arrangement. The address of the indoor unit shall be set automatically in case of individual and group control. In case of centralized control, it shall be set by liquid crystal display remote controller. The fan shall be dual suction, aerodynamically designed | | | | | | | | | |
| 1.2.2.1 | R2-ME-9-11-d | 2542 CFM / 4TR | Nos. | 16 | 54,538 | 872608 | 43,630.40 | 52,356.48 | 61,082.56 | 69,808.64 | 69,808.64 |

| | | | | | | | | | | | |
|---------|--------------|---|------|----|-------|---------|-------------|-------------|-------------|-------------|-------------|
| 1.2.2.2 | R2-ME-9-11-c | 2118 CFM / 3 TR | Nos. | 4 | 45448 | 181792 | 9,089.60 | 10,907.52 | 12,725.44 | 14,543.36 | 14,543.36 |
| 1.2.2.3 | R2-ME-9-11-a | 688 CFM / 2 TR | Nos. | 2 | 35969 | 71938 | 3,596.90 | 4,316.28 | 5,035.66 | 5,755.04 | 5,755.04 |
| 1.2.3 | ME-9-13 | Supply, Installation, Testing & Commissioning of Ceiling Suspended Cassette 4-way unit: The indoor units shall be ceiling mounted cassette type with multi flow. It shall have electronic expansion control valve which controls refrigerant flow rate in respond to load variations of the room, i.e. shall communicate with the VRF controller in the condensing unit. The fan shall be of the dual suction multi blade type statically and dynamically balanced to ensure low noise and vibration free operation. The cooling coil shall be made out of seamless copper tubes and have | | | | | | | | | |
| 1.2.3.1 | R2-ME-9-13-c | 2 TR | Nos. | 44 | 52979 | 2331076 | 1,16,553.80 | 1,39,864.56 | 1,63,175.32 | 1,86,486.08 | 1,86,486.08 |
| 1.2.3.2 | R2-ME-9-13-d | 2.5 TR | Nos. | 8 | 54797 | 438376 | 21,918.80 | 26,302.56 | 30,686.32 | 35,070.08 | 35,070.08 |
| 1.3 | | DX UNITS | | | | | | | | | |

| | | | | | | | | | | | |
|------------|-------------|--|------|---|-------|-----------------|------------------|------------------|------------------|------------------|------------------|
| 1.3.1 | R2-ME-9-2 | Supply , Installation, Testing and Commissioning for Air cooled DX split unit (Indoor and Outdoor Unit). The unit shall be suitable for air throw (minimum) 6 meter from Air-conditioning unit.Energy Performance Standards for Split Air Conditioners- Min. 2 Stars and above. The outdoor unit shall comprise of 1 Nos. of hermetically sealed type rotary compressor. Operation on refrigerant R-407c/ R-410A or environmental friendly latest refrigerant with suitable rated electric motor operating on 230 V ±10%, 50 hertz, single phase, A.C. supply and shall be equipped with over load protection. These shall be mounted on resilient mounting for quiet operation. The condenser shall be single circuits for compressor. The fan for cooling condenser shall be propeller type and driven by High Efficiency EFF-1, TEFC squirrel cage induction motor. The Indoor unit shall have sensor and timer, equipped with full function remote control. The fan / | | | | | | | | | |
| 1.3.1.1 | R2-ME-9-2-b | 1.5 TR Hi-WALL UNIT | Nos. | 6 | 56486 | 338916 | 16,945.80 | 20,334.96 | 23,724.12 | 27,113.28 | 27,113.28 |
| 1.3.1.2 | R2-ME-9-2-c | 2 TR Hi-WALL UNIT | Nos. | 1 | 62328 | 62328 | 3,116.40 | 3,739.68 | 4,362.96 | 4,986.24 | 4,986.24 |
| | | | | | | | | | | | |
| | | TOTAL OF 1 | | | | 11306907 | 565345.35 | 678414.42 | 791483.49 | 904552.56 | 904552.56 |
| | | | | | | | | | | | |
| 2.0 | | FANS | | | | | | | | | |
| | | | | | | | | | | | |

| | | | | | | | | | | | |
|-------|---------|--|------|---|-------|-------|----------|----------|----------|----------|----------|
| 2.1 | | Providing, fixing, testing and commissioning Inline Fans of G.I. construction complete with Axial Inline fan. Motor with class 'F' insulation wired to a external mounted weather proofed terminal box. Motor speed shall not exceed 1450 rpm., canvass connection at inlet and outlet complete with electric panel with MCB and relays, with cabling and earthing with louvers bird screen at outlet. The fan shall be provided with special anti-corrosive/ epoxy coating like pure epoxy zinc rich primer, noise level of the fan shall not exceed 40 DB in the factory area, complete as specified, requirement and drawings. | | | | | | | | | |
| 2.1.2 | FAIR-09 | 1650 cfm & 20 mm Static | Nos. | 1 | 28570 | 28570 | 1,428.50 | 1,714.20 | 1,999.90 | 2,285.60 | 2,285.60 |
| 2.1.3 | FAIR-10 | 1200 cfm & 20 mm Static | Nos. | 2 | 27105 | 54210 | 2,710.50 | 3,252.60 | 3,794.70 | 4,336.80 | 4,336.80 |
| 2.1.4 | FAIR-11 | 1120 cfm & 20 mm Static | Nos. | 2 | 27105 | 54210 | 2,710.50 | 3,252.60 | 3,794.70 | 4,336.80 | 4,336.80 |
| 2.1.5 | FAIR-12 | 890 cfm & 20 mm Static | Nos. | 2 | 19780 | 39560 | 1,978.00 | 2,373.60 | 2,769.20 | 3,164.80 | 3,164.80 |
| 2.1.6 | FAIR-13 | 400 cfm & 20 mm Static | Nos. | 3 | 13773 | 41319 | 2,065.95 | 2,479.14 | 2,892.33 | 3,305.52 | 3,305.52 |
| 2.1.7 | FAIR-14 | 250 cfm & 15 mm Static | Nos. | 2 | 11135 | 22270 | 1,113.50 | 1,336.20 | 1,558.90 | 1,781.60 | 1,781.60 |
| 2.2 | | Supply, installation, testing and commissioning of Vane Axial Fan for Pressurization suitable for installing in Horizontal Position. The motor shall be suitable for 415 V + 10% volts three phase 50cycle, AC supply suitable for operating through VFD / DOL / SD Starter. The fan Speed shall be max 970 rpm and capacities based on static pressure. all supports & fixing arrangement & canvas connections at inlet & outlet shall be included. The Fan shall have low sound level exceeding not more than 65 dBA at three meter distance at both ends if required. To achieve specified DB level sound attenuators shall be provided at inlet / outlet. These fans shall be selected for Max. 10m/s outlet velocity & minimum 60% efficiency. | | | | | | | | | |

| | | | | | | | | | | | |
|------------|--------------|--|--------|-----|-------|---------------|-----------------|----------------|-----------------|----------------|----------------|
| 2.2.1 | FAIR-15 | 8000 cfm & 15 mm Static | Nos. | 2 | 73257 | 146514 | 7,325.70 | 8,790.84 | 10,255.98 | 11,721.12 | 11,721.12 |
| 2.3 | R2-ME-4-12-g | Supply, installation, testing and commissioning of Propeller Fan conforming to I.S.2312 of 1967 and of approved make and shall be suitable to work on 230V/ 250V, 50 c/s. A.C. single phase or 3 phase 415V A.C. supply. Single phase fan shall have capacitor start-run motor. The motor shall be totally enclosed type and provided with pressure die cast aluminium rotor mounted on ball bearings. The impeller shall be with four curved blades of deep drawn quality sheet steel fitted on robust | | | | | | | | | |
| 2.3.1 | | 150 Dia, 50 cfm | Nos. | 126 | 1757 | 221382 | 11,069.10 | 13,282.92 | 15,496.74 | 17,710.56 | 17,710.56 |
| | | TOTAL OF 2 | | | | 608035 | 30401.75 | 36482.1 | 42562.45 | 48642.8 | 48642.8 |
| 4.0 | | AIR DISTRIBUTION SYSTEM AND ACCESSORIES | | | | | | | | | |
| 4.2 | | Grilles / Diffuser & Dampers. | | | | | | | | | |
| 4.2.1 | R2-ME-9-30 | Supply and Installation of lever operated Volume Control Dampers: The new volume control dampers /by pass dampers of suitable size shall be fabricated from 16 SWG galvanized steel sheet and shall provided on the place of removed dampers. These dampers shall be properly marked with colour code for opening & closing | Sq.Mtr | 1.5 | 13261 | 19891.5 | 994.58 | 1,193.49 | 1,392.41 | 1,591.32 | 1,591.32 |
| 4.2.2 | R2-ME-9-31 | Supply and Installation of Fresh Air Dampers: The damper shall be provided with a galvanized sheet steel cover with cowl and bird screen. The damper shall be opposed blade louver type fabricated from 16 SWG galvanized sheet steel. | Sq.Mtr | 1 | 15187 | 15187 | 759.35 | 911.22 | 1,063.09 | 1,214.96 | 1,214.96 |
| 4.5 | | Central remote controller | | | | | | | | | |

| | | | | | | | | | | | |
|-------|--------------|---|------|------------------|--------|--------------------|------------------|-----------------|------------------|------------------|------------------|
| 4.5.1 | R2-ME-9-10-m | Supply, Installation, Testing and Commissioning of Central remote controller : Central control system controller shall be supplied as specified in the "Bill of Quantities". The System supplied must integrate with the VRF / VRV system. The VRF / VRV system supplied must be provided with a control system, from the supplier of VRF / VRV equipments. The complete operation & monitoring of VRF / VRV air conditioning system shall be possible through the control system. Following functions shall be possible a. Controlling indoor units b. Zone control c. Malfunction code display d. All the functions available with wired remote controller e It should be possible to wire the | Set. | 1 | 103881 | 103881 | 5,194.05 | 6,232.86 | 7,271.67 | 8,310.48 | 8,310.48 |
| | | | | | | | - | - | - | - | - |
| 4.6 | R2-ME-9-10-l | Supply, installation, testing and commissioning of refnet joints on refrigerant pipeline Refnets as specified of pipe sizes from 1/4 " to 2": The Distribution refrigeration pipe joints and headers shall be located in an appropriate orientation to enable correct distribution of refrigerant. The Distribution Joints should be factory | nos | 123 | 8404 | 1033692 | 51,684.60 | 62,021.52 | 72,358.44 | 82,695.36 | 82,695.36 |
| | | TOTAL OF 4 | | | | 1172651.5 | 58632.575 | 70359.09 | 82085.605 | 93812.12 | 93812.12 |
| | | | | | | | | | | | |
| | | Grand Total | | | | 1,30,87,594 | 6,54,380 | 7,85,256 | 9,16,132 | 10,47,007 | 10,47,007 |
| | | Total of CSMC HVAC | | 44,49,782 | | | | | | | |

| Seva Niketan- KEM Hospital CSMC Cost Lifts | | | | | | | | | | | |
|---|----------------|--|-------------|--------------|-------------|-----------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Sr No | Item No | Discription | Unit | QTY | Rate | Amount | 1st Year aftr DLP | 2nd Year aftr DLP | 3rd Year aftr DLP | 4th Year aftr DLP | 5th Year aftr DLP |
| 1 | Fair 01 | SITC of Passenger gearless lift for 8 Passenger/544 Kg, G+16 floor (17Stops/17 Landings) | Job | 2 | 4425968.00 | 8851936 | 430204.0896 | 531116.16 | 619635.52 | 708154.88 | 708154.88 |
| 2 | Fair 02 | SITC of Passenger gearless lift for 16 Passenger/1088 Kg, G+16 floor (17Stops/17 Landings) | Job | 2 | 5420301.00 | 10840602 | 525227.1669 | 650436.12 | 758842.14 | 867248.16 | 867248.16 |
| | | | | Total | | 1,96,92,538.00 | 9,55,431.26 | 11,81,552.28 | 13,78,477.66 | 15,75,403.04 | 15,75,403.04 |
| | | | | | | | | | | | |
| | | Total of CSMC | | | | 66,66,267.28 | | | | | |