

নথি অফিসঃ ----

নথি শাখাঃ ----

মুদ্রনকারীঃ ঢাকা পানি সরবরাহ ও পয়ঃনিষ্কাশন কর্তৃপক্ষ (ঢাকা ওয়াসা), সাভার কেরানীগঞ্জ ওয়েলফিল্ড প্ল্যান্ট

নথি নম্বর: ৪৬.০৫.০০০০.৬২৬.৩৫.১১৫.২৩ নথির বিষয়: Construction of workshop for Electro-Mechanical works in IRP#1 of SKWP কাজটি অনুমোদন প্রসঙ্গে।

নোট: ১ নোটের বিষয়: Construction of workshop for Electro-Mechanical works in IRP#1 of SKWP কাজটি অনুমোদন প্রসঙ্গে।

অনুচ্ছেদ ১.০ - তারিখঃ ৫/১০/২৩ ৪:১৪ অপরাহ্ন

সাভার কেরানীগঞ্জ ওয়েলফিল্ড প্ল্যান্টে ২ টি আয়রন রিমুভাল প্ল্যান্ট, ৪৫ টি গভীর নলকূপ (বাকী ১ টি নলকূপের কাজ অসমাপ্ত রয়েছে) ও ২ টি ৩৩/১১ কেভি বৈদ্যুতিক উপ-কেন্দ্রসহ অন্যান্য স্থাপনা সমূহ পরিচালনা ও পর্যবেক্ষণ করার জন্য আধুনিক অটোমোটেড স্ক্যাডা সিস্টেম রয়েছে। প্ল্যান্টের পানি উৎপাদন লক্ষ্যমাত্রা দৈনিক ১৫ কোটি লিটার। দৈনিক সকল গভীর নলকূপের মাধ্যমে ২৬ কি.মি. পাইপ লাইনের মাধ্যমে অপরিশোধিত পানি সংগ্রহ করে আয়রন রিমুভাল প্ল্যান্ট-১ এর আওতায় OGR (Over Ground Reservoir) হতে বুস্টারিং করে ১২০০ মি.মি. ব্যাসের পাইপ দিয়ে ভাকুতা, মোগড়াকান্দা, আমিনবাজার, গাবতলী হয়ে মীরপুর (জোন-৪, জোন-১০) এলাকায় দৈনিক প্রায় ১৫ (পনেরো) কোটি লিটার সুপেয় পানি সরবরাহ করা হয়।

উল্লেখ্য, Iron Removal Plant (IRP#1) এর অভ্যন্তরে অফিস বিল্ডিং, ক্লোরিণ বিল্ডিং, ফিল্টার অপারেশন বিল্ডিংসহ বিভিন্ন স্থাপনা রয়েছে। স্থাপনাগুলোর প্রতিটি এক বা একাধিক কাজের জন্য ব্যবহৃত হয়ে আসছে। কিন্তু ইলেক্ট্রো-মেকানিক্যাল কাজের জন্য আলাদা কোনো ওয়ার্কসপ নেই। সম্পূর্ণ প্ল্যান্ট এলাকার পাম্প, মটর, গেটভাল্ভ, নন-রিটার্ন ভাল্ভ, বিভিন্ন পাইপ ফিটিংস এর ওয়েল্ডিং এবং জেনারেটরসহ সকল ইলেক্ট্রো-মেকানিক্যাল সম্বন্ধীয় মেরামত কাজ করার জন্য নির্দিষ্ট কোনো স্থাপনা/জায়গা নেই। যেহেতু প্রতিনিয়ত ভারী ও মূল্যবান যন্ত্রাংশের মেরামতের প্রয়োজন হয় তৎপ্রেক্ষিতে যাবতীয় ও প্রয়োজনীয় সকল সুবিধা সম্বলিত একটি ওয়ার্কসপ নির্মাণ করা জরুরী। এছাড়াও সাভার-কেরানীগঞ্জ ওয়েলফিল্ড প্ল্যান্টে প্রায়সই দেশী ও বিদেশী পর্যটকদের ভিজিট প্রোগ্রাম থাকে। প্ল্যান্টে যেকোনো মেরামত কাজ করা হয়ে থাকে তা ভিজিটরদের পূর্ণাঙ্গভাবে দেখানো/বোঝানোর জন্য যথাযথ মানের একটি ওয়ার্কসপ জরুরী প্রয়োজন। বর্ণিত সমস্যা সমাধানের জন্য অত্র প্ল্যান্টের ২০২৩-২০২৪ ইং অর্থ বছরের বার্ষিক ক্রয়-পরিকল্পনায় Construction of workshop for Electro-Mechanical works in IRP#1 of SKWP কাজটি অন্তর্ভুক্ত আছে।

অনুচ্ছেদ ১.১ - তারিখঃ ৫/১০/২৩ ৪:১৮ অপরাহ্ন

সেলেক্শ্যে, Construction of workshop for Electro-Mechanical works in IRP#1 of SKWP কাজের জন্য সংযুক্ত ক্রমিক নং-১ এ নকশা অনুসরণপূর্বক এবং পিডার্লিউডি এর ২০২২ ও ২০১৮ এর দর ধরে একটি প্রাক্কলন প্রস্তুত করা হয়েছে (সংযুক্তিঃ ০২)। প্রাক্কলনে সর্বোমোট টাকার পরিমাণ দাড়িয়েছে ৮.২৪,৩৭,৪৬২.২৫৫ (টাকা চব্বিশ লক্ষ সাইত্রিশ হাজার চারশত বাষটি দশমিক দুই পাঁচ পাঁচ) টাকা। উক্ত কাজের ব্যয়ভার সাভার কেরানীগঞ্জ ওয়েলফিল্ড প্ল্যান্টের ২০২৩-২০২৪ ইং অর্থ বছরের বরাদ্দকৃত বাজেটের মূলধনী ব্যয়ের ক্রমিক নং-৪ এর “অফিস ভবন নির্মাণ” খাত (সংযুক্ত ক্রমিক নং-৩) যাহা ২০২৩-২০২৪ ইং অর্থবছরের বার্ষিক ক্রয়-পরিকল্পনার ক্রমিক নং-৩২ এর W-১৭ এ (সংযুক্ত ক্রমিক নং-৪) অন্তর্ভুক্ত আছে।

সংযুক্তিসমূহ (৪):

- ১। নকশা।
- ২। প্রাক্কলন ও হিসাববিবরণী।
- ৩। বাজেট ২৩-২৪ অর্থবছরের কপি।
- ৪। ২০২৩-২৪ অর্থ বছরের বার্ষিক ক্রয়-পরিকল্পনার কপি।

অনুচ্ছেদ ১.২ - তারিখঃ ৫/১০/২৩ ৪:১৯ অপরাহ্ন

নথি | ডিজিটাল নথি ব্যবস্থাপনা

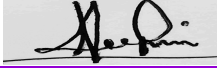
এমতাবস্থায়, উপর্যুক্ত অনুচ্ছেদ-১.০ ও ১.১ এর বর্ণনার প্রেক্ষিতে ঢাকা ওয়াসার সাভার-কেরানীগঞ্জ ওয়েলফিল্ড প্লান্টের আওতায় **Construction of workshop for Electro-Mechanical works in IRP#1 of SKWP** শীর্ষক কাজটি সম্পাদনের লক্ষ্যে নিম্নবর্ণিত প্রস্তাব সমূহ সদয় অনুমোদন দেয়া যেতে পারে:-

ক) কাজটি পাবলিক প্রকিউরমেন্ট বিধিমালা-২০০৮ এর ৬১ ধারায় e-Government Procurement (e-GP) এর মাধ্যমে উন্মুক্ত দরপত্র পদ্ধতিতে (OTM) দরপত্র আহবানের অনুমোদন।

খ) উপস্থাপিত দাপ্তরিক প্রাক্কলিত ৮.২৪,৩৭,৪৬২.২৫৫ (টাকা চব্বিশ লক্ষ সাইত্রিশ হাজার চারশত বাষটি দশমিক দুই পাঁচ পাঁচ) প্রাক্কলনের আর্থিক, কারিগরি ও প্রশাসনিক অনুমোদন।

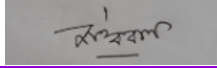
গ) উক্ত কাজের ব্যয়ভার সাভার-কেরানীগঞ্জ ওয়েলফিল্ড প্লান্ট এর ২০২৩-২০২৪ ইং অর্থ বছরের বরাদ্দকৃত বাজেটের মূলধনী ব্যয়ের ক্রমিক নং-৪ এর “অফিস ভবন নির্মাণ” খাত হতে নির্বাহের প্রশাসনিক অনুমোদন।

উল্লেখ্য, উপর্যুক্ত প্রস্তাবনাসমূহ অনুমোদনের ক্ষমতা প্রধান প্রকৌশলী মহোদয়ের আওতাধীন।



৫/১০/২৩ ৪:১৯ অপরাহ্ন
মোঃ রেজাউল করিম
উপ-সহকারী প্রকৌশলী

সাভার কেরানীগঞ্জ ওয়েলফিল্ড প্ল্যান্ট



৫/১০/২৩ ৪:৫০ অপরাহ্ন
মোঃ জাফর ইকবাল চৌধুরী
সহকারী প্রকৌশলী

সাভার কেরানীগঞ্জ ওয়েলফিল্ড প্ল্যান্ট

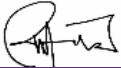
৫/১০/২৩ ৪:৫০ অপরাহ্ন

মাসুদুল আলম
নির্বাহী প্রকৌশলী (চলতি দায়িত্ব)

সাভার কেরানীগঞ্জ ওয়েলফিল্ড প্ল্যান্ট

অনুচ্ছেদ ১.৩ - তারিখঃ ৫/১০/২৩ ১১:৫৯ অপরাহ্ন

উপরোক্ত বর্ণনার আলোকে অনুচ্ছেদ ১.২ এর প্রস্তাব সদয় অনুমোদনের জন্য সুপারিশ করা হল। যা অনুমোদনের ক্ষমতা প্রধান প্রকৌশলী মহোদয়ের আওতাধীন।



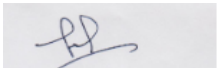
৬/১০/২৩ ১২:৩০ প্রবাহ
মাসুদুল আলম
নির্বাহী প্রকৌশলী (চলতি দায়িত্ব)
সাভার কেরানীগঞ্জ ওয়েলফিল্ড প্ল্যান্ট

৬/১০/২৩ ১২:৩০ প্রবাহ

মিজা গোলাম কিবরিয়া
তত্ত্বাবধায়ক প্রকৌশলী
পানি ও পয়ঃ শোধনাগার সার্কেল

অনুচ্ছেদ ১.৪ - তারিখঃ ৬/১০/২৩ ৬:৪৩ অপরাহ্ন

Forwarded for kind approval of paragraph:1.2



৬/১০/২৩ ৬:৪৩ অপরাহ্ন
মিজা গোলাম কিবরিয়া
তত্ত্বাবধায়ক প্রকৌশলী
পানি ও পয়ঃ শোধনাগার সার্কেল

৬/১০/২৩ ৬:৪৩ অপরাহ্ন

মোঃ কামরুল হাসান
প্রধান প্রকৌশলী
প্রধান প্রকৌশলী (পরিচালন ও
রক্ষণাবেক্ষণ)

অনুচ্ছেদ ১.৫ - তারিখঃ ৭/১০/২৩ ১:০০ অপরাহ্ন

অনুমোদিত



৭/১০/২৩ ১:০০ অপরাহ্ন
মোঃ কামরুল হাসান
প্রধান প্রকৌশলী
প্রধান প্রকৌশলী (পরিচালন ও
রক্ষণাবেক্ষণ)

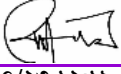
৭/১০/২৩ ১:০০ অপরাহ্ন

মাসুদুল আলম
নির্বাহী প্রকৌশলী (চলতি দায়িত্ব)
সাভার কেরানীগঞ্জ ওয়েলফিল্ড প্ল্যান্ট

নথি | ডিজিটাল নথি ব্যবস্থাপনা

অনুচ্ছেদ ১.৬ - তারিখঃ ৮/১০/২৩ ১২:১৯ পূর্বাহ্ন

অনুচ্ছেদ ১.৫ এর অনুমোদনের আলোকে দরপত্র আহ্বানের ব্যবস্থা নিন।



৮/১০/২৩ ১২:১৯ পূর্বাহ্ন	৮/১০/২৩ ১২:১৯ পূর্বাহ্ন
মাসুদুল আলম	মোঃ রেজাউল করিম
নির্বাহী প্রকৌশলী (চলতি দায়িত্ব)	উপ-সহকারী প্রকৌশলী
সাভার কেরানীগঞ্জ ওয়েলফিল্ড প্ল্যান্ট	সাভার কেরানীগঞ্জ ওয়েলফিল্ড প্ল্যান্ট

নথি | ডিজিটাল নথি ব্যবস্থাপনা

Office of the Executive Engineer

Savar-Keraniganj WellField Plant, Dhaka WASA

Bhakurta, Savar, Dhaka.

Section-6

Bill of Quantities

ESTIMATE

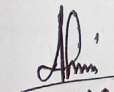
Name of the Work: Construction of workshop for Electro-Mechanical works in IRP#1 of SKWP

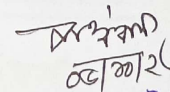
SL. No.	Basis of Unit Rate	Description of Item/Work	Quantity	Unit	Rate (BDT)	Total Amount (BDT)
Civil Works						
1	PWD 2022 02.1.1	Layout and marking for earthwork in excavation in foundation accepted by the Engineer-in-charge. [Plinth area of the structure shall be considered for measurement]	77.490	Sqm	19.000	1,472.310
2	PWD 2022 02.1.2	Earth work in excavation in all kinds of soil for foundation trenches including layout, providing center lines, local bench-mark pillars, levelling, ramming and preparing the base, fixing bamboo spikes and marking layout with chalk powder, providing necessary tools and plants, protecting and maintaining the trench dry etc., stacking, cleaning the excavated earth at a safe distance out of the area enclosed by the layout etc. all complete and accepted by the Engineer-in-charge, subject to submit method statement of carrying out excavation work to the Engineer-in-charge for approval. However, engineer's approval shall not relieve the contractor of his responsibilities and obligations under the contract. Earthwork in excavation in foundation trenches up to 1.5 m depth and maximum 10 m lead	38.670	Cum	168.000	6,496.560
3	PWD 2022 03.5.1	Mass concrete (1:2:4) in foundation or in floor with cement, sand (F.M. 1.2) and picked jhama brick chips including breaking of chips, screening, mixing, laying, compacting to required level and curing for at least 7 days including the supply of water, electricity, costs of tools & plants and other charges etc. all complete and accepted by Engineer-in-charge. (Cement: CEM-I/B-M). Mass concrete in foundation (1:2:4) with brick chips and local sand of F.M. 1.2.	1.010	Cum	8,886.000	8,974.860
4	PWD 2022 03.1.1	One layer brick flat soling in foundation or in floor with first class/picked jhama bricks (BDS 208) including preparation of bed and filling the interstices with local sand, leveling etc. complete and accepted by the Engineer-in-charge	82.290	#REF!	518.000	42,626.220
5	PWD 2022 3.7	Supplying and laying of single layer polythene sheet weighing one kilogram per 6.5 square meter in floor or any where below cement concrete complete in all respect and accepted by Engineer-in-charge.	77.490	Sqm	47.000	3,642.030
6	PWD 2022 07.2.1	Reinforced cement concrete works with minimum cement content relates to mix ratio 1:2:4 having maximum water cement ratio = 0.40 and minimum fcr = 30.5 MPa, satisfying a specified compressive strength fc = 22 MPa at 28 days on standard cylinders as per standard practice of Code ACI/BNBC/ASTM, cement conforming to BDS EN-197-1-CEM-I, 52.5N (52.5 MPa) / ASTM-C 150 Type - I, best quality Sylhet sand or coarse sand of equivalent F.M. 2.2 and 20 mm down well graded stone chips conforming to ASTM C-33 (Aggregate grading as per table shown in technical specification), conducting necessary tests, making and placing shutter in position maintaining true to plumb, making shutter water-tight properly, placing reinforcement in position; mixing in standard mixer machine with hopper fed by standard measuring boxes, casting in forms, compacting by vibrator machine and curing at least for 28 days, removing centering-shuttering after specified time approved; including cost of water, electricity, other charges etc. all complete, approved and accepted by the Engineer-in-charge. (Rate is excluding laboratory test fees, the cost of reinforcement and its fabrication, placing, binding etc. and the cost of shuttering & centering) Individual & combined footing, pile cap, raft/mat, floor slab and foundation beam up to plinth level	33.665	Cum	13,504.000	454,605.408
7	PWD 2022 07.12.2	Centering and shuttering, including strutting, propping etc. (The formwork must be rigid enough both in and out of plane, to make the concrete surface true to the designed shape and size by using necessary MS sheets of minimum 16 BWG, angles of minimum size 40 mm x 40 mm x 5 mm, flat bars etc.) and removal of form for: In raft/mat/floor slab up to plinth level	240.495	Sqm	587.000	141,170.565
8	PWD 2022 02.10.1	Sand filling in foundation trenches and plinth with sand having minimum F.M. 0.5 in 150 mm layers including leveling, watering and compaction to achieve minimum dry density of 95% with optimum moisture content (Modified proctor test) by ramming each layer up to finished level as per design supplied by the design office only, all complete and accepted by the Engineer-in-charge.	96.025	Cum	1,088.000	104,475.200
9	PWD 2022 08.1.2	Grade 400 (B400DWR / B420DWR: complying BDS ISO 6935-2:2016 / ASTM A615) ribbed or deformed bar produced and marked according to Bangladesh standard, with minimum yield strength, fy (Rm) = 400 MPa but fy not exceeding 480 MPa and whatever is the actual yield strength within allowable limit as per BNBC/ACI 318, the ratio of ultimate tensile strength fu to yield strength fy, shall be at least 1.25 and minimum elongation after fracture and minimum total elongation at maximum force is 17% and 8% respectively: up to ground floor.	3567.893	Kg	100.000	356,789.253
10	PWD 2018 08.3	Mild steel, grade 250 with minimum fy = 250 MPa, work in roof truss: supplying and fabrication of mild steel sections as per design, hoisting, fitting and fixing in position with bolt and nuts or rivets or welds and providing two coats of anti-corrosive paint over a prime coat of red oxide paint etc. complete and accepted by the Engineer-in-charge.	1909.229	Kg	138.000	263,473.602
11	PWD 2022 10.12	Supply and installation of 0.47 mm thick zinc alum color coated profile sheet from local source/China with minimum warranty period of 5 years after installation for roof, wall, capping, flashing, trimming, gutter etc. (up to level-4) conforming to ASTM A792, Grade: 80, A2150 gr/m ² , including the cost of necessary accessories (sheeting screws with washers, silicon sealant etc.), testing of materials etc. all complete as per drawing specification and direction of Engineer-in-charge.	1563.525	Kg	200.000	312,705.000
12	PWD 2018 10.19.2	0.27 mm thick colored iron plain sheet ridging with 300 mm lap on either side fitted and fixed with galvanized bolts and nuts etc. all complete and accepted by the Engineer-in-charge.	12.900	meter	464.000	5,985.600

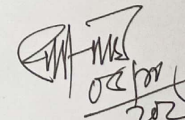
SL. No.	Basis of Unit Rate	Description of Item/Work	Quantity	Unit	Rate (BDT)	Total Amount (BDT)
13	PWD 2018 10.15	Supply and installation of double bubble foil insulation at wall and roof of nominal thickness of 8 mm conforming to Class A in accordance with the ASTM-E84-09 fire test standard, including the cost of lapping, costape, adhesive and necessary accessories, all complete as per drawing, specification and direction of Engineer-in-charge.	87.720	Sqm	283.000	24,824.760
14	PWD 2018 10.1	Supply and fixing of galvanized anchor bolts of variable dia for rigid frame conforming to ASTM F1554 Grade 55, Galvanized to A153, Class C or equivalent with minimum yield strength of 380 MPa, manual of steel construction by American Institute of Steel Construction (AISC) etc. including the cost of washer & bolts, material testing etc. all complete as per drawing, specification and direction of the Engineer-in-charge.	20.000	Kg	180.000	3,600.000
15	PWD 2022 10.26	Premium Synthetic Enamel paint of approved best quality and colour delivered from authorized local agent of the manufacturer (Berger robbialac supergloss synthetic enamel/Elite lucky seven/ Asian apcolipe premium paint or equivalent brand) in a sealed container, having highly water resistant, high bondability, flexibility property; using specified brand thinner applying to metallic surface by spray in two coats over single coat anti-corrosive coating including cleaning drying, making free from dirt, grease, wax, removing all chalked and scaled materials, all complete in all floors accepted by the Engineer-in-charge. (payment shall be made on structural steel weight basis)	1909.229	er Kg Stee	9.000	17,183.061
16	PWD 2022 04.4	Exposed brick works (for exterior wall without outside plaster) with special quality sorted out first class bricks , very carefully laid in cement sand (F.M. 1:2) mortar (1:4) in superstructure with uniform width and depth of joints, true to vertical and horizontal lines including raking out joints, scaffolding, soaking the bricks at least for 24 hours before use, washing and screening of sand, curing at least for 7 days and high class flush pointing with cement sand (F.M. 1:2) mortar (1:1) including cost of water, electricity and other charges etc. all complete and accepted by the Engineer-in-charge. (Cement: CEM-II/B-M) In ground floor	13.555	Cum	9,197.000	124,662.576
17	PWD 2022 15.1.1	Minimum 12 mm thick cement sand (F.M. 1:2) plaster (1:4) with fresh cement to both inner-and outer surface of wall, finishing the corner and edges including washing of sand, cleaning the surface, curing at least for 7 days, cost of water, electricity, scaffolding and other charges etc. all complete in all respect as per drawing and accepted by the Engineer-in-charge. (Cement: CEM-II/B-M) ground floor.	138.600	Sqm	299.000	41,441.400
18	PWD 2022 16.2.1	Interior standard acrylic emulsion paint (plastic or matt finish) of approved best quality and colour delivered from authorized local agent of the manufacturer in a sealed container; applying to interior wall and ceiling with surface preparation including cleaning drying, making free from dirt, grease, wax, removing all chalked and scaled materials, fungus, mending good the surface defects using sand paper and necessary scaffolding; applying necessary interior sealer of specified brand on prepared surface; then applying necessary interior putty of specified brand for levelling, spot filling, crack filling and cutting by sand paper/zero water paper; finally applying 2 coats of interior emulsion paint spreading by brush/roller/spray & necessary scaffolding etc. upto desired finishing, elapsing specified time for drying or recoating; all complete in all floors and accepted by the Engineer-in-charge.	52.080	Sqm	258.000	13,436.640
19	PWD 2022 16.1.2	Exterior premium acrylic emulsion paint of approved best quality and color with high performance against dirt picking tendency and efflorescence resistance properties along with water resisting properties and resistance properties against fungi, fading and flaking from authorized local agent of the manufacturer in a sealed container; applying to exterior surface with surface preparation including cleaning drying, making free from dirt, grease, wax, removing all chalked and scaled materials, fungus, mending good the surface defects using sand paper and necessary scaffolding; applying necessary exterior sealer of specified brand on prepared surface; then applying necessary exterior putty of specified brand for levelling, spot filling, crack filling and cutting by sand paper/zero water paper; finally applying 2 coats of exterior emulsion paint spreading by brush/roller/spray & necessary scaffolding etc. upto desired finishing, elapsing specified time for drying or recoating; all complete in all floors and accepted by the Engineer-in-charge.	90.720	Sqm	298.000	27,034.560
20	PWD 2022 04.26	25 mm thick artificial patent stone (1:2:4) flooring with cement, best quality coarse sand (50% quantity of Syihet sand or coarse sand of equivalent F.M. 2.2 and 50% best quality local sand of FM 1.2) and 12 mm down well graded brick chips including breaking chips, screening, laying the concrete in alternate panels, compacting and finishing the top with neat cement and curing at least for 7 days in all floors including cost of water, electricity and other charges etc. all complete and accepted by the Engineer-in-charge. (Cement: CEM-II/B-M) In ground floor	78.530	Sqm	486.000	38,165.580
21	PWD 2022 19.7	Manufacturing, supplying, fitting, fixing of ordinary type M.S. folding gate with 12mm x 12mm MS square solid bar and 25 mm x 25mm x 6 mm MS angle box frame and two nos outer side fixed box post made with 40 mm x 40 mm x 6 mm angle at both ends attached to column/wall side including locking arrangement providing 38 mm x 38 mm x 6 mm M.S. angle clamps fitted and fixed with the outer frame of the main gate, the clamp being embedded in R.C.C. or R.C.C. core pillar with cement concrete (1:2:4) in masonry including cutting holes and mending good the damages, finishing, curing etc. including riveting, welding as and where necessary, painting two coats with approved quality of synthetic enamel paint over a coat of priming of anti-corrosive paint etc. all complete as per drawing, design and accepted by the Engineer-in-charge. (Rate is excluding the cost of paint)	9.225	Sqm	5,630.000	51,936.750

Sl. No.	Basis of Unit Rate	Description of Item/Work	Quantity	Unit	Rate (BDT)	Total Amount (BDT)
22	PWD 2022 14.3.1	Supplying, fitting and fixing of aluminum composite swing doors with fixed partition as per the U. S. Architectural Aluminum Manufacturer's Association (AAMA) standard specification and BDS 1879/2014 having 1.5 mm thick wall frame (size 101.60, 44.45 mm, 0.86 kg/m), 1.8 mm thick shutter side (size 54 mm, 46 mm, 1.2 kg/m), 0.99 mm thick door glass bit (size 16.54 mm, 14.49 mm, 0.115 kg/m), 1.8 mm thick closure section (size 101.54 mm, 42.93 mm, 1.20 kg/m), 1.5 thick closure cover (101.60 mm, 0.45 kg/m), 4 mm thick floor bottom (size 101.60 mm, 12.70 mm, 1 kg/m), 1.8 mm thick shutter bottom (size 86.60 mm, 43.99 mm, 0.60 kg/m), 1.8 mm thick shutter top (size 51 mm, 43.99 mm, 1.88 kg/m) 2.3mm to 4.01mm thick handle (short) (size 101.60 mm, 38.10 mm, 25.40 mm, 1.35 kg/m), minimum 1.2 mm thick top and side (size 101.60 mm, 44.45 mm, 0.934 kg/m), minimum 1.2 mm thick bottom (size 101.35 mm, 44.45 mm, 0.734 kg/m), minimum 1.2 mm thick bottom cover (44.32 mm, 19.61mm, 0.333 kg/m), minimum 1.2 mm thick groed by the Engineer-in-charge, the Engineer-in-charge. (Rate is excluding laboratory test fees, the cost of reinforcement and its fabrication, placing, binding etc. and the cost of shuttering & centering) Individual & combined footing, pile cap, raft/mat, floor slab and foundation beam up to plinth leveling and accepted by the Engineer-in-charge.	2.100	Sqm	3,911.000	8,213.100
23	PWD 2022 14.8.1.1	Supplying, fitting and fixing of aluminum sliding window with mosquito mesh as per the U.S. Architectural Aluminum Manufacturer's Association (AAMA) standard specification and BDS 1879/2014 having minimum 1.2 mm thick outer bottom (95.00 mm, 38.00 mm outer bottom, 0.72 kg/m), minimum 1.2 mm thick outer top (95.00 mm, 28.5 mm outer top, 0.75 kg/m), minimum 1.2 mm thick shutter top (size 33 mm, 26.80 mm, 0.42 kg/m), minimum 1.2 mm thick shutter bottom (size 60mm, 24.40 mm, 0.589 kg/m), minimum 1.2 mm thick outer side (95.00 mm, 19.50 mm outer side, 0.591 kg/m), minimum 1.2 mm thick shutter lock (size 49.20 mm 25.80 mm, 0.543 kg/m) and minimum 1.2 mm thick inter lock (size 34.40 mm, 32.13 mm, 0.562 kg/m) sections all aluminum members will be anodized to aluminum bronze/silver/black colour with a coat not less than 15 microns in thickness or powder coated to any colour with a coat not less than 25 microns in thickness and density of 4 mg per square cm etc. Including all accessories like sliding door key lock, by the Engineer-in-charge, the Engineer-in-charge. (Rate is excluding laboratory test fees, the cost of reinforcement and its fabrication, placing, binding etc. and the cost of shuttering & centering) Individual & combined footing, pile cap, raft/mat, floor slab and foundation beam up to plinth level coat not less than 15 microns in thickness	20.580	Sqm	5,119.000	105,349.020
24	PWD 2022 14.16.1.2.2	Supplying, fitting and fixing in Aluminium door frames, windows, partitions and curtain wall distortion free glass of approved quality and shade including cost of fitting fixing all necessary accessories etc. complete in all respect as per drawing and accepted by the Engineer-in-charge.	21.680	Sqm	2,491.000	54,004.880
25	PWD 2022 21.2	Supplying, fitting and fixing MS grill fencing of any design and shape made with 19 mm x 19 mm x 3 mm box (box made with 2 nos. 19 mm x 19 mm x 3 mm angle by continuous welding) placed vertically @ 150 mm c/c and welding the said vertical boxes with 2 nos. horizontal 25 x 25 x 6 mm angle box (made with 2 Nos. 25 x 25 x 6 mm angle by welding), placing one at bottom and another at top and again fitting & fixing by welding the said horizontal tube box with 38 mm x 38 mm x 6 mm angle box vertical post made with 2 nos. 38 mm x 38 mm x 6 mm angle by welding) provided @ 1800 mm c/c including embedding the tube box post in brick R.C.C. pillar or core wall up to 375 mm depth after cutting grooves in wall/pillar including mending good the damages with C.C. (1:2:4) and finishing, curing, 2 coats of approved synthetic enamel paint over a coat of anti-corrosive paint etc. all complete as per design, drawing and accepted by the Engineer-in-charge. (Rate is excluding the cost of painting)	20.580	Sqm	5,254.000	108,127.320
Electrical House Wiring Works						
26	PWD 2018 1.1.7 (i)	Concealed Conduit Wiring: Concealed Conduit Wiring for the following point looping at the switch board with earth terminal including circuit wiring with IC-2x1.5 sqmm PVC insulated stranded cable (BYA) & 1.5 Sqmm (yellow-green) PVC insulated stranded ECC wire (BYA) through PVC conduit (Aziz or equivalent) of 25mm inner dia with wall thickness 1.5mm, 18 SWG GP sheet, switch board & pull box with 3mm ebonite sheet cover, brass contact, ceiling rose, fixing materials & all other accessories as required including mending the damages. Manufacturer of cable Eastern/BRB/Paradise/Poly Cable/Super Sign/BBS or equivalent according to the specification & direction of the E-I-C. For Security Light and Tube Light Point	10.000	point	816.000	8,160.000
27	PWD 2018 1.2.10.2	NY Y Cable: Concealed Conduit wiring with the following PVC insulated stranded cable (NY Y) & green colored PVC insulated stranded ECC wire (BYA) through PVC conduit complete with fixing materials & other accessories as specified, Manufacturer of cable BRB/Paradise/Poly cable/Super sign/BBS or equivalent according to the Specification & direction of the Engineer-in-charge. IC-4x4.0 Sqmm (NY Y) Cable with 4.0 Sqmm (BYA) ECC wire through PVC pipe of 25mm inner dia.	30.000	meter	502.000	15,060.000
28	PWD 2018 1.2.9.2	BYA Cable: Concealed Conduit wiring with the following PVC insulated stranded cable (BYA) & green colored PVC insulated stranded ECC wire (BYA) through PVC conduit (Aziz or equivalent) complete with fixing materials & other accessories as specified, Manufacturer of cable BRB/Paradise/Poly cable/Super sign/BBS or equivalent according to the Specification & direction of the Engineer-in-charge. IC-2x2.5 Sqmm (BYA) Cable with 2.5 Sqmm (BYA) ECC wire through PVC pipe of 25mm inner dia.	50.000	meter	184.000	9,200.000
29	PWD 2018 1.2.9.1	BYA Cable: Concealed Conduit wiring with the following PVC insulated stranded cable (BYA) & green colored PVC insulated stranded ECC wire (BYA) through PVC conduit (Aziz or equivalent) complete with fixing materials & other accessories as specified, Manufacturer of cable BRB/Paradise/Poly cable/Super sign/BBS or equivalent according to the Specification & direction of the Engineer-in-charge. IC-2x1.5 Sqmm (BYA) Cable with 1.5 Sqmm (BYA) ECC wire through PVC pipe of 25mm inner dia.	165.000	meter	146.000	24,090.000

SL. No.	Basis of Unit Rate	Description of Item/Work	Quantity	Unit	Rate (BDT)	Total Amount (BDT)
30	PWD 2018 4.1 (ii)	Sub-Distribution Board (SDB): Supplying & fitting 250V, 50Hz, grade following concealed sub-distribution board made of 18 DWG mild steel sheet, complete with hinged type door, built in type locking arrangement, along with approved type handle 60A capacity bus-bar with required number of holes there on, insulators at both ends. Copper bar for neutral & earth terminal, necessary arrangement for fixing of SPMCB by keeping its knobs out on the top cover of the board with enamel/hammer painting. All completes as per specification & direction of the E-I-C. Manufacturer of SPMCB Dorman Smith (UK/Germany), MEM (UK), SIEMENS (USA/Germany) or equivalent. 4-ways SDB Bix Size: 220mmx132mmx148mm, Incoming - 1x40A SPMCB, Outgoing - 4x4/10/15A SPMCB	1.000	each	4,649.000	4,649.000
31	PWD 2018 4.5.1	Providing & fixing on a prepared board 500V grade following Triple Pole Miniature Circuit Breaker (TPMCB) having minimum breaking capacity 6KA with thermal over-current and instantaneous electromagnetic short circuit release provision. TPMCBs of Dorman Smith/ Mem/ Siemens/ Schneider/ Vitzro/ Eaton/ Hager/ Federal/ Kavanura/ ABB/ Havells/ Legrand/ Merlin Gerin or equivalent accepted/ approved by the Engineer. TPMCB: 5 - 60 Amps	1.000	each	2,499.000	2,499.000
32	PWD 2018 4.7.1	Providing & fixing 500V 3-phase bus-bar system assembled in prelaidd board with porcelain insulators. There will be equal size holes on every bar at 0.5" interval and bar to bar gap shall be 2" - 3". Bus-Bar: 60-100 Amps. Copper flat bat (5 no's): 4 no's 9"x1"x3mm and 1 no. 4"x1"x4mm for earthing mounted on insulator at both ends individually.	1.000	each	1,884.000	1,884.000
33	PWD 2018 4.4.1 (i)	Providing & fixing on a prepared board 250V grade following Single Pole Miniature Circuit Breaker (SPMCB) having minimum breaking capacity 6KA with thermal over-current and instantaneous electromagnetic short circuit release provision. TPMCBs of Dorman Smith/ Mem/ Siemens/ Schneider/ Vitzro/ Eaton/ Hager/ Federal/ Kavanura/ ABB/ Havells/ Legrand/ Merlin Gerin or equivalent accepted/ approved by the Engineer. SPMCB: 5 - 40 Amps (minimum 6KA)	5.000	each	640.000	3,200.000
34	PWD 2018 4.10.1 (i)	Providing & fixing 250V single phase 3-pin combined switch socket outlet (surface/concealed type) manufactured and tested in accordance with relevant IEC/VDE/NEMA/BS/IS/ standards mounted on required size 18 SWG galvanized plain sheet board/ Plastic board (self-extinguishing 650°C) of 76.2mm (3") depth. 16 Amps, made in England/ Germany/ Japan/ USA or EU countries.	4.000	each	1,008.000	4,032.000
35	PWD 2018 4.10.4 (i)	Providing & fixing 250V single phase universal combined switch socket outlet (surface/concealed type) manufactured and tested in accordance with relevant IEC/VDE/NEMA/BS/IS/ standards mounted on required size 18 SWG galvanized plain sheet board/ Plastic board (self-extinguishing 650°C) of 76.2mm (3") depth. Sample to be approved by the Engineer. 5-10 Amps, made in England/ Germany/ Japan/ USA or EU countries.	4.000	each	948.000	3,792.000
36	PWD 2018 4.11.1 (iii)	Providing & fixing 250V 5/6 Amps (minimum) concealed type switch manufactured and tested in accordance with relevant IEC/VDE/NEMA/BS/IS/ standards mounted on required size 18 SWG galvanized plain sheet board/ PVC board (self-extinguishing 650°C) of 76.2mm (3") depth. All electrical contacts shall be brass/copper. Made in England/ Germany/ Japan/ USA or EU countries. 2 (two) gang switch.	2.000	each	706.000	1,412.000
37	PWD 2018 4.11.1 (ii)	Providing & fixing 250V 5/6 Amps (minimum) concealed type switch manufactured and tested in accordance with relevant IEC/VDE/NEMA/BS/IS/ standards mounted on required size 18 SWG galvanized plain sheet board/ PVC board (self-extinguishing 650°C) of 76.2mm (3") depth. All electrical contacts shall be brass/copper. Made in England/ Germany/ Japan/ USA or EU countries. 2 (two) gang switch.	2.000	each	586.000	1,172.000
38	PWD 2018 6A.6(ii),(a),4	Supply & fixing of LED Tube Light fitting of the following features, size and model with all necessary elements such as driver, chips etc. complete. Model & sample shall be approved by the Engineer. (i) Gloria cat. No. GTF (LED) 774 or equivalent product of Energy+/ Energypac/ Sunko etc. (ii) Rated Life: 30,000 hr (minimum) (iii) luminous flux: 100+ 1m/w (iv) LED chips: Edison/ Epistar/ Osram/ Philips/ Cree/ Bridgelux (v) Driver: Meanwell/ Osram/ Philips/ IEC standard. Std. Size: 4 ft. x 36 W.	6.000	each	1,654.000	9,924.000
39	PWD 2018 6A.8(i),(a)	Providing & fixing the water tight street/exterior light fitting of following manufacturer's model & catalog number with clear acrylic semicircular shade, brass holder, earth terminal necessary wiring, with 2x0.4 Sqmm stranded PVC insulated flexible FR cable & mountable on 38.1mm (1.5") GI pipe bracket, suitable for CFL/LED lamp (except lamp) etc. complete sample accepted/ approved by the Engineer. Gloria cat. no. GRL-703 or (N) or equivalent product of Crescent/ Shvash/ Energy+/ Asha etc.	4.000	each	2,016.000	8,064.000
40	PWD 2018 6A.21.5	Supply & fixing of the following LED bulb manufactured by Energy+/ Mep/ Harmonics/ Electro/ Suntec/ GE/ Transteo/ Energypac or equivalent brand accepted/ approved by the Engineer. 12 Watt LED bulb.	4.000	each	398.000	1,592.000
41	Lumsum	Supply and Installation 6 inch M.S Metal spike 50mm c/c on pump house main gate by welding and finishing with 3 coats of anti-corrosive paint etc. all complete as per design, drawing and direction of E-I-C.	4.8	mm	3820.000	18,336.000
Grand Total =						2,437,462.255
In Words: Twenty-four lakh Thirty-seven thousand Four hundred and Sixty-two Point Two Five Five Only.						


 05.10.2023
 মোঃ রেজাউল করিম
 উপ-সহকারী প্রকৌশলী
 নতর-সেবাসিদ্ধ ওয়েসবিসি গুটি, ঢাকা থানা।


 ০৫/১০/২৩
 জাফর ইকবাল চৌধুরী
 সহকারী প্রকৌশলী
 নতর-সেবাসিদ্ধ ওয়েসবিসি গুটি, ঢাকা থানা।


 ০৫/১০/২৩
 মাসুদুল আলম
 নিবাহী প্রকৌশলী
 নতর-সেবাসিদ্ধ ওয়েসবিসি গুটি, ঢাকা থানা।

Office of the Executive Engineer

Savar-Keraniganj WellField Plant, Dhaka WASA

Bhakurta, Savar, Dhaka.

Calculation

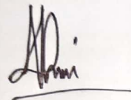
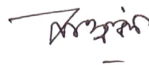
Name of the Work: Construction of workshop for Electro-Mechanical works in IRP#1 of SK

SL. No.	Description of Item/Work	Length (m)	Width (m)	Height (m)	Area (m ²)	Volume (m ³)	Weight (Kg/m)	No. of Item	Total Quantity	Unit
Civil Works										
1	Layout and Marking for Earthwork	12.300	6.300		77.490			1.000	77.490	Sqm
2	Existing Soil Excavation									
	a) Footing	1.750	1.750	1.500		4.594		8.000	36.750	Cum
	b) Ramp base	4.000	0.600	0.800		1.920		1.000	1.920	
	Total=								38.670	
3	Mass Concrete (1:2:4)									
	a) Footing	1.500	1.500	0.050		0.113		8.000	0.900	Cum
	b) Ramp base	4.000	0.550	0.050		0.110		1.000	0.110	
	Total:								1.010	
4	One Layer Brick Flat Soling									
	a) Under floor slab	12.300	6.300		77.490			1.000	77.490	
	b) under ramp	4.000	1.200		4.800			1.000	4.800	
	Total:								82.290	
5	Providing & Laying Polythene Sheet									
	a) Under floor Slab	12.300	6.300		77.490			1.000	77.490	Sqm
	Total:								77.490	
6	RCC Works (1:2:4) f _c = 22 MPa									
	a) Footing	1.500	1.500	0.250		0.563		8.000	4.500	Cum
	b) Column	0.300	0.300	6.050		0.545		8.000	4.356	
	c) Grade beam	48.000	0.300	0.300		4.320		1.000	4.320	
	d) Beam	48.000	0.300	0.300		4.320		1.000	4.320	
	e) Floor Slab	12.300	6.300	0.150		11.624		1.000	11.624	
	f) Lintel	36.000	0.300	0.150		1.620		1.000	1.620	
	g) Sunshade	2.100	1.000	0.150		0.315		7.000	2.205	
	h) ramp	1.200	4.000	0.150		0.720		1.000	0.720	
	Total:								33.665	

SL. No.	Description of Item/Work	Length (m)	Width (m)	Height (m)	Area (m ²)	Volume (m ³)	Weight (Kg/m)	No. of Item	Total Quantity	Unit
7	Steel Formwork									
	a) Footing	6.000		0.250	1.500			8.000	12.000	Sqm
	b) Column	1.200		6.050	7.260			8.000	58.080	
	c) Grade beam	48.000		1.200	57.600			1.000	57.600	
	d) Beam	48.000		1.200	57.600			1.000	57.600	
	e) Lintel	36.000		0.900	32.400			1.000	32.400	
	f) Sunshade	2.100		1.150	2.415			7.000	16.905	
	g) Floor	37.200		0.150	5.580			1.000	5.580	
	h) ramp	2.200		0.150	0.330			1.000	0.330	
	Total:								240.495	
8	Sand Filling									
	a) above footing	1.750	1.750	1.250		3.828		8.000	30.625	Cum
	c) Under floor	12.000	6.000	0.900		64.800		1.000	64.800	
	d) under ramp	4.000	1.000	0.150		0.600		1.000	0.600	
	Total=								96.025	
9	Reinforcement (Grade 400)									
	a) Footing (16mm dia) 125 mm C/C both way	1.700					1.580	208.000	558.688	Kg
	b) Column Long Bar (6-16mm dia)	6.700					1.580	48.000	508.128	
	c) Column Stirrup (10 mm dia) 125 mm C/C	1.200					0.620	430.000	319.920	
	d) Grade beam (5-16mm dia)	48.300					1.580	5.000	381.570	
	e) Stirrup (10 mm dia) 125 mm C/C	1.250					0.620	388.000	300.700	
	f) Beam (5-16mm dia)	36.300					1.580	5.000	286.770	
	g) Stirrup (10 mm dia) 125 mm C/C	1.250					0.620	292.000	226.300	
	h) Lintel (4-12 mm dia)	36.000					0.888	4.000	127.872	
	i) Stirrup (10 mm dia) 200 mm C/C	0.550					0.620	181.000	61.721	
	j) Sunshade (12 mm dia Both way)	1.100					0.620	15.000	10.230	
		2.200					0.620	7.667	10.457	
	k) Floor Long (10 mm dia 150 mm C/C)	13.250					0.620	43.000	353.245	
		7.000					0.620	83.000	360.220	
	l) Ramp	1.600					0.888	24.000	34.099	
		3.500					0.888	9.000	27.972	
	Total=								3567.893	

SL. No.	Description of Item/Work	Length (m)	Width (m)	Height (m)	Area (m ²)	Volume (m ³)	Weight (Kg/m)	No. of Item	Total Quantity	Unit
10	Mild Steel Sections									
	a) Rafter (L 3 x 2-1/2 x 7/16")	3.150					11.300	1.000	35.595	Kg
	b) Purlin (HSS 4 x 2-1/2 x 3/8")	12.600					12.600	7.000	1111.320	
	c) Webs (L 3 x 3 x 7/16")	10.666					10.666	4.000	42.664	
	d) Bottom Chord (L 4 x 4 x 5/16")	6.000					12.200	4.000	292.800	
	e) Top Chord (L 4 x 4 x 5/16")	3.100					12.200	8.000	302.560	
	f) Base Plate (10 x 10 x 1/2")	0.250	0.250		0.063		98.100	8.000	49.050	
	g) Frame for side panel (L 2 x 2 x 1/8")	15.675					2.400	2.000	75.240	
								Total =	1909.229	
11	0.47mm Colour Profile									
	a) Roof	12.900	3.400		43.860		5.000	2.000	438.600	Kg
	b) Side Panel	12.300	0.475		5.843		5.000	2.000	58.425	
	c) All around Workshop	37.200	3.200		119.040		5.000	2.000	1190.400	
	(-) Deduction window	2.100	1.400		2.940		5.000	7.000	-102.900	
	(-) Deduction Door	3.000	1.400		4.200		5.000	1.000	-21.000	
								Total =	1563.525	
12	Plain sheet ridging	12.900						1.000	12.900	meter
13	Double Bubble Foil Insulation	12.900	3.400		43.860			2.000	87.720	Sqm
14	Anchor Bolts							20.000	20.000	Kg
15	Premium Synthetic Enamel Paint							1909.229	1909.229	or Kg Ste
16	250mm Brick Work with Mortar (1:4)									
	a) Guide wall	37.200	0.250	1.350		12.555		1.000	12.555	Cum
	b) Ramp base	4.000	0.325	0.600		0.780		1.000	0.780	
	c) Stair	1.300			0.169	0.220		1.000	0.220	
								Total:	13.555	
17	12mm Thick Plastering (1:4)									
	a) Wall	37.200		1.400	52.080			2.000	104.160	Sqm
	d) (-) Deduct Door	2.000		2.100	4.200			1.000	-4.200	
	e) Sunshade	2.300	1.200		2.760			14.000	38.640	
								Total:	138.600	
18	Inside Wall Painting									
	a) Wall	37.200		1.400	52.080			1.000	52.080	Sqm
								Total:	52.080	

SL. No.	Description of Item/Work	Length (m)	Width (m)	Height (m)	Area (m ²)	Volume (m ³)	Weight (Kg/m)	No. of Item	Total Quantity	Unit
19	Outside Wall Painting									
	a) Wall	37.200		1.400	52.080			1.000	52.080	Sqm
	e) Door Sunshade	2.300	1.200		2.760			14.000	38.640	
	Total:								90.720	
20	Artificial Patent Stone (1:2:4) Flooring									
	a) Floor	12.300	6.300		77.490			1.000	77.490	Sqm
	b) Stair	1.300	0.800		1.040			1.000	1.040	
	Total:								78.530	


SL. No.	Description of Item/Work	Length (m)	Width (m)	Height (m)	Area (m ²)	Volume (m ³)	Weight (Kg/m)	No. of Item	Total Quantity	Unit
21	MS Folding Gate	3.000		3.075	9.225			1.000	9.225	Sqm
22	Aluminium swing door	1.000		2.100	2.100			1.000	2.100	Sqm
23	Aluminium Sliding window	2.100		1.400	2.940			7.000	20.580	Sqm
24	Glass (6mm thick glass)									
	a) Window Glass	2.100		1.400	2.940			7.000	20.580	Sqm
	b) Door Glass	1.000		1.100	1.100			1.000	1.100	
								Total:	21.680	
25	MS Grill	2.100		1.400	2.940			7.000	20.580	Sqm
Electrical House Wiring Works										
26	Concealed Conduit Point Wiring (BYA) for							10.000	10.000	point
27	Concealed Wiring (NYY) (through PVC conduit): 1C-4x4 sqmm	10.000						3.000	30.000	meter
28	Concealed Wiring (BYA): 1C-2x2.5 sqmm (BYA) cable with 2.5	50.000						1.000	50.000	meter
29	Concealed Wiring (BYA): 1C-2x1.5 sqmm (BYA) cable with 1.5	165.000						1.000	165.000	meter
30	4-way Sub-Distribution Board							1.000	1.000	each
31	TPMCB: 20 Amps							1.000	1.000	each
32	Bus Bar: 30 Amps							1.000	1.000	each
33	SPMCB: 16 Amps							5.000	5.000	each
34	3-pin combined Switch							4.000	4.000	each
35	Universal combined							4.000	4.000	each
36	3 Gang Switch: 6 Amps							2.000	2.000	each
37	2 Gang Switch: 6 Amps							2.000	2.000	each
38	LED Tube Light							6.000	6.000	each
39	Street/Out Door Light							4.000	4.000	each
40	12 Watt LED bulb							4.000	4.000	each
41	Supply and Installation 6 inch M.S Metal spike	4.800						1.000	4.800	rm

AD.
06.10.2023

মোঃ রেজাউল করিম
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০৫/১০/২৩
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