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Training Organization Guide (ToG)

For

TVET CERTIFICATE IV IN PUBLIC WORKS

MAY 2023

Participants

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Facilitator

No	Names	Organization	Position
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Part 1: Pedagogical organization

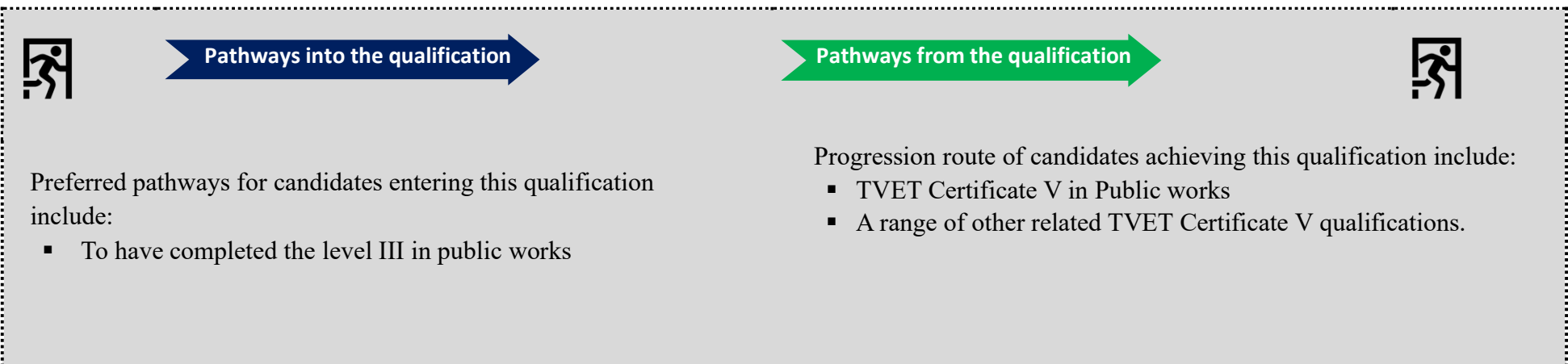
1. Presentation of the training programme

1.1 Qualification

This qualification prepares individuals to integrate the construction industry with the professionalization of public work. This qualification again offers the opportunity to execute the works as Public work surveyor, Steel bar works technician, Cement concrete test technician, Architectural drafter, Cement concrete technician, Non bituminous pavement construction technician, Drainage system maintenance technician, Non-bituminous carriageway, shoulder & walkway maintenance technician, Do-nou technology in earth road maintenance technician, and Soil test technician while ensuring that safety, security and environmental regulations are respected.

1.2 Minimum Entry requirements

The minimum entry requirement to this course is to be healthy with mental capability and interested in public works and related areas.



2. The training program

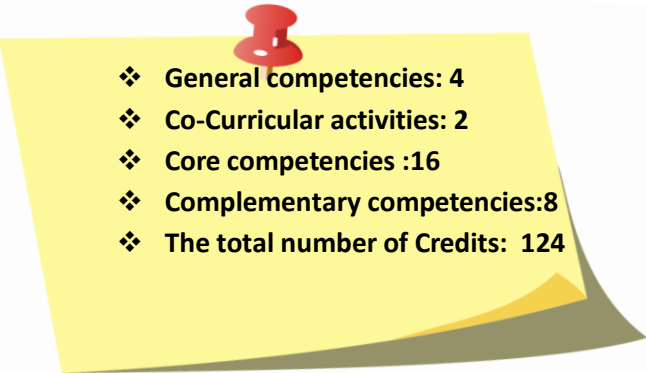
2.1 Information about competencies

No	Code	Complementary competencies	Credit
1	CCMHE402	Implement SHE policies and procedures	3
2	CCMBC402	Develop a business plan	3
3	CCMEN402	Use intermediate English at workplace	3
4	CCMCL402	Apply computer skills	3
5	CCMKN402	Gukoresha Ikinyarwanda cyumunyamwuga	3
6	CCMFT402	Exprimer des opinions en français élémentaire	3
7	CCMKS402	Kutumia Kiswahili katika mawasiliano ya kawaida	3
8	CCMCT401	Citizenship	3
Total			24

No	Co-Curricular activities	Credit
1	Sports/Clubs	3
2	Self-study/Library Reasearch	3
Total		6

No	Code	Core competencies	Credit
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GENERAL	1.	PWOTD401	Apply Technical drawing	5
	2.	GENFA402	Applied Mathematics	6
	3.	GENAC402	Applied Chemistry	3
	4.	GENMP402	Applied Physics	3
SPECIFIC	5.	PWODM401	Perform Drainage system maintenance	5
	6.	PWOCs401	Perform Surveying data collection and setting out	5
	7.	PWOSW401	Perform steel bar works	5
	8.	PWOTA401	Perform Test on aggregate	9
	9.	PWOCC401	Perform Cement concrete works	4
	10.	PWOST401	Perform Full soil identification and insitu dry density test	8
	11.	PWONB401	Perform Non bituminous pavement construction	9
	12.	PWOCM401	Perform Non-bituminous carriageway, shoulder & walkway maintenance	6
	13.	PWODT401	Perform cement tests	5
	14.	PWOCOT401	Perform Concrete tests	3
	15.	PWODT401	Apply Do-nou technology in earth road maintenance	4
	16.	CCMIA402	Integrate the workplace	20

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- ❖ General competencies: 4
 - ❖ Co-Curricular activities: 2
 - ❖ Core competencies :16
 - ❖ Complementary competencies:8
 - ❖ The total number of Credits: 124

3. Human resources

3.1 Trainers' qualifications and competences (Trainers' profile)

S/N	Modules	Qualification	Field or training experience	Technical teaching experience	Languages skill	ICT skills.
1.	TECHNICAL DRAWING	- A1 in Civil engineering. - A0 in Civil engineering - A0 in Architecture - A1 in Construction Technology - A0 in Construction in Engineering	Field experience can be added value	TVET related Teaching experience is an added value	• Fluent in English. • Kinyarwanda and French is an added value	Computer literacy • MS word • MS excel • PPT and • Internet • CAD
2.	SURVEYING DATA COLLECTION AND SETTING	- A1 in Civil engineering. - A0 in Civil	Field related experience can be added value	TVET related Teaching experience is an added value	• Fluent in English. • Kinyarwanda and French is an	Computer literacy • MS word

	OUT	Engineering - A1 in Land Surveying - A0 in Land Surveying - A0 in Surveying and Geomatic Engineering			added value	• MS excel • PPT and • Internet • Computer Aided Design
3.	FULL SOIL IDENTIFICATION AND INSITU DRY DENSITY TEST	- A1 in Civil Engineering - A1 in construction technology - A0 in Civil Engineering - A0 Geotechnical Engineering	Related field experience or in soil test laboratory is added value	TVET related Teaching experience is an added value	• Fluent in English. • Kinyarwanda and French is an added value	- Computer literacy in MS word, MS excel, PPT and Internet
4.	CEMENT TESTS	- A1 in Civil Engineering - A1 in construction technology - A0 in Civil	Related Field experience or in cement test laboratory is added value	TVET related Teaching experience is an added value	• Fluent in English. • Kinyarwanda and French is an added value	Computer literacy • MS word • MS excel

		Engineering - A0 Geotechnical Engineering				• PPT and • Internet
5	TEST ON AGGREGATE	- A1 in Civil Engineering - A1 in construction technology - A0 in Civil Engineering - A0 Geotechnical Engineering	Related Field experience or in cement test laboratory is added value	TVET related Teaching experience is an added value	• Fluent in English. • Kinyarwanda and French is an added value	Computer literacy • MS word • MS excel • PPT and • Internet
6	CONCRETE TESTS	- A1 in Civil Engineering - A1 in construction technology - A0 in Civil Engineering - A0 Geotechnical Engineering	Related Field experience or in concrete test laboratory is added value	TVET related Teaching experience is an added value	• Fluent in English. • Kinyarwanda and French is an added value	Computer literacy • MS word • MS excel • PPT and • Internet
7	STEEL BAR WORKS	- A1 in Civil Engineering	Related Field experience is	TVET related Teaching	• Fluent in English.	Computer literacy

		- A1 in construction technology - A0 in Construction in Engineering - A0 in Civil Engineering - A0 in Structural Engineering	added value	experience is an added value	• Kinyarwanda and French is an added value	• MS word • MS excel • PPT and • Internet
8	CEMENT CONCRETE WORKS	- A1 in Civil Engineering - A1 in construction technology - A0 in Construction in Engineering - A0 in Civil Engineering - A0 in Structural Engineering	Related Field experience is added value	TVET related Teaching experience is an added value	• Fluent in English. • Kinyarwanda and French is an added value	Computer literacy • MS word • MS excel • PPT and • Internet
9	NON BITUMINOUS	- A1 in Civil Engineering	Related Field experience is	TVET related Teaching	• Fluent in English.	Computer literacy

	PAVEMENT CONSTRUCTION	- A1 in Highway engineering - A0 in Civil Engineering - A0 in Highway engineering	added value	experience is an added value	• Kinyarwanda and French is an added value	• MS word • MS excel • PPT and • Internet
10	NON-BITUMINOUS CARRIAGEWAY, SHOULDER & WALKWAY MAINTENANCE	- A1 in Civil Engineering - A1 in Highway engineering - A0 in Civil Engineering - A0 in Highway engineering	Related Field experience is added value	TVET related Teaching experience is an added value	• Fluent in English. • Kinyarwanda and French is an added value	Computer literacy • MS word • MS excel • PPT and • Internet
11	DRAINAGE SYSTEM MAINTENANCE	- A1 in Civil Engineering - A1 in Highway engineering - A0 in Civil Engineering - A0 in Highway	Related Field experience is added value	TVET related Teaching experience is an added value	• Fluent in English. • Kinyarwanda and French is an added value	Computer literacy • MS word • MS excel • PPT and • Internet

		engineering				
12	DO-NOU TECHNOLOGY IN EARTH ROAD MAINTENANCE	- A1 in Civil Engineering - A1 in Highway engineering - A1 in construction technology - A0 in Civil Engineering - A0 in Highway engineering	Related Field experience is added value	TVET related Teaching experience is an added value	• Fluent in English. • Kinyarwanda and French is an added value	Computer literacy • MS word • MS excel • PPT and • Internet

3.2. Material Resources

3.2.1 Category 1: Machines, equipment and accessories

	<i>Equipment</i>	<i>Specification</i>	Unity	Quantity	UNIT PRICE (Rwf)	Type of room	Module code
1	Wheelbarrow	• Dimension (mm): (1.100*640*700) • Fixed wheels (mm): 380 • Tyre : Pneumatic • Weight (kg): 15 • Load : 70	Piece	20	80,000	Workshop store	PWODM401 PWOSC401 PWOSW401 PWOTA401 PWOCC401 PWOST401 PWONB401 PWOCM401 PWOCT401 PWOCOT401 PWODT401

2	Air compressor	Motor: 2.0 HP Pump: oil lubricated Tank capacity: 2.6 gallons (9.8 liters) Performance: 3.3 CFM @ 90 PSI Noise level: 80 dB(A) Amperage: 12.4A (120 V) Maximum pressure: 130 PSI Dimensions (L x W x H): 19-5/16" x 12-1/8" x 24-1/8" (493 mm x 310 mm x 615 mm) Net weight: 52.0 lbs (23.6 kg)	Piece	2	5,000,000	Workshop store	PWODM401 PWOSC401 PWOSW401 PWOTA401 PWOCC401 PWOST401 PWONB401 PWOCM401 PWOCT401 PWOCOT401 PWODT401
3	Beam balance /Electrical balance	• Power supply:220v ac • Capacity :2000g-10000g • Readability(g):0.1g • Model number: LP-A series • Pan size;207*193mm • Function: hight precision balance	Piece	10	150,000	Workshop store	PWOTA401 PWOCC401 PWOST401 PWOCT401 PWOCOT401

4	Gauge box	• Material:steel • Dimension:(300x300x400) mm • Volume:0.036	Piece	10	80,000	Workshop store	PWODM401 PWOTA401 PWOC401 PWOST401 PWONB401 PWOCM401 PWOCOT401
5	Concrete mixer	• Model : Tilting • Weight : 950 Kg • Capacity (mixed): 200 Litres • Drum speed (Rev./min:20-22 • Power Electric Motor : 5H.P • Power Disel Engine : 6.5 H.P • Production rate : 6.8 m /hour.	Piece	5	3,500,000	Workshop store	PWODM401 PWOC401 PWOST401 PWONB401 PWOCM401 PWOCOT401
6	Vibrator machine	Type: Concrete Vibrator Productivity: 75m ² /h Feeding Height: 1370mm Fuel Tank capacity 3.8L Max power 5hp/3600rpm	Piece	5	300,000	Workshop store	PWODM401 PWOC401 PWOST401 PWONB401 PWOCM401 PWOCOT401

7	Power float machine	• Weight: 80Kg • Engine Type: Honda GX200 Petrol • Path: 1000mm • Engine Speed: 3600rpm	Piece	4	2,500,000	Workshop store	PWODM401 PWOC401 PWONB401 PWOCM401
8	Dumpy level	• Length : 175 mm • Shortest focusing distance: 1.5 m • Longest focusing distance 200/300 mtr • Objective Aperture : 40mm • Stadia Constant : 1/100 • Normal accuracy 2-3mm / km • Weight :2.350kg	Piece	4	500,000	Workshop store	PWODM401 PWOSC401 PWONB401 PWOCM401 PWODT401
9	Metallic buckets	Type: Heavy duty bucket • Material:stainless steel Capacity: 10 liters	Piece	30	3,500	Workshop store	PWODM401 PWOSC401 PWOSW401 PWOTA401 PWOC401 PWOST401 PWONB401 PWOCM401 PWOC401 PWOCOT401 PWODT401

10	Jerrycan	•Type: Heavy duty Jerrycan •Material:Plastic •Capacity: 20 liters	Piece	30	2,000	Workshop store	PWODM401 PWOTA401 PWOCC401 PWOST401 PWONB401 PWOCM401 PWOCT401 PWOCOT401 PWODT401
11	Demolition hammer	•Blows per minute 950-1,900ipm •Joules 18.6J •Overall dimensions 576mm •Net weight 10.8kg •Continuous rating input 1,510W •Power supply cord 5.0m •Carbon brush	Piece	30	8,000	Workshop store	PWODM401 PWONB401 PWOCM401
12	Miter saw machine	•Blade Speed 1900-3800 rpm •Bevel Capacity 49/49 deg •Possible Mitre Angles 60/50 •Max. Cutting Capacity (90°/90°) [Metric] 303 x 110 mm •Product Weight [Metric] 24.8 Kg	Piece	10	1,000,000	Workshop store	PWOCW401 PWONB401 PWOCM401

13	Belt conveyor	•Material: Nylon or polyester textile carcass fabric plies are bonded with synthetic rubber compound,ensures safe transportation of lifting & unloading ,belting rubber covers are made of anti-abrasive with high tensile strength quality,rubber must be heat resistant • Capacity : 800 mm width conveyor-rubber-belt is approximately 1 tons per hour at belt speed of 10 meter / minutes.	Piece	10	1,500,000	Workshop store	PWOCW401 PWONB401 PWOCM401
14	Electric circular saw	• Voltage 230v - 50hz • Power 1.400w • No load input 5.000 rpm / min • Cutting depth 90° 65mm • Cutting depth 45° 43mm • Blade diameter 185mm • Weight kg	Piece	10	400,000	Workshop store	PWOCW401 PWONB401 PWOCM401

15	Electrical Bender bar	• Max. Bending Capacity : 1.1-79 sq.in. of 36-60 KSI yield steel,1" max. width, 2" max. height • Bend Die Diameters : 1/2", 3/4", 1", 1-1/4", 1-1/2", 1-3/4", 2", 3", 4-1/2", 6" • Angle Control :Slide lever, 0 deg. to 190 deg. • Operation Control Foot Pedal with automatic return on release • Bending Speed :2 sec. for 90 deg. or 7 sec. for 90 deg. depending on material size • Voltage : 110-120 volts standard ,50/60 cycles, single phase • Amperage: 14 @ 110 volts / 7 @ 220 volts •Power Supply : Two stage hydraulic pump driven by a 1 HP •Dimensions : (L x W x H) 32" x 20" x 30" • Weight :350 pounds	Piece	2	150,000	Workshop	PWOSW401
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16	Angle grinder	• Regulating Wheel : (mm) : TGS-CL-6020 • O.D.*Width*I.D (mm): Ø350*203*Ø152 • Minimum diameter : (mm) Ø270 • Speed range (rpm) 10-300 • Brand Name: Bosch • Model Number : 06018242F0	Piece	2	200,000	Workshop	PWOSW401
17	Bending bar table	Dimensions: 810*760*860. Max Bending Radius: 8 - 36mm. Motor Speed: 1440 R/min. Machine Weight: 350 Kg.	Piece	2	250,000	Workshop	PWOSW401

18	Theodolite and its accessories (Tripod, Staff reading, batteries, Charger, Plumb bob)	- Telescope Model – 20 - Image Erect - Length 178 mm - Magnification 25X - Effective Aperture 38mm - Field of View 2.6 M at 100M - Short Focus 1.5M - Stadia Ratio 1:100 - Stadia Constant 0 - Resolving Power 4" - Circle Diameter Hz113m m, V100 mm - Graduation 20' - Vernier Reading 20" - Plate Level Sensitivity 45" / 2mm - Vertical Circle Level :1' / 2mm	Piece	2	2,500,000	Workshop	PWODM401 PWOSC401 PWONB401 PWOCM401 PWODT401
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19	DGPS and its accessories	- Real-time kinematic (Compliant to ISO17123-8 standard) - Single baseline Network RTK : Hz 8 mm + 1 ppm / V 15 mm + 1 ppm Hz 8 mm + 0.5 ppm / V 15 mm + 0.5 ppm - Real-time kinematic tilt compensated - Topographic points (not for control points): Additional Hz uncertainty max 8 mm + 0.4 mm/° tilt down to 30° tilt - Post processing: • Static (phase) with long observations: Hz 3 mm + 0.1 ppm / V 3.5 mm + 0.4 ppm • Static and rapid static (phase) : Hz 3 mm + 0.5 ppm / V 5 mm + 0.5 ppm - Code differential: DGNSS : Hz 25 cm / V 50 cm - Image point measurement-1-click measurement in field / office : Typically 2 cm – 4 cm (2D1), within the distance of 2 m to 10 m to the object - Self-learning GNSS	Piece	2	15,192,500	Workshop	PWODM401 PWOSC401 PWONB401 PWOCM401 PWODT401
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20	EDM/Total station and its accessories	- Telescope: Image erect Magnification – 30x - Shortest distance: 1.7m - Distance Measurement : Laser class - Class Prism: 3 r/reflector less - Reflector less -150 m (white 7odak) - Range: 3 km –single prism. - Accuracy – 2 mm+2 ppm prism 3 mm+3 ppm-(reflectorless) - time: 1. 2 sec - Angle measurement: Accuracy: 2”, 3”, 5” - Compensator: Dual axis compensator, Optical plummet: Magnification: erect - Laser plummet: Laser spot: adjustable - laser class: class 2 - Display : Dual lcd display, 8 lines x 24 character, circular level, double screen - Battery : Ni-mh battery - Memory : Internal memory- 16000 pts - Programs : Nez, stakeout, resection, rem / mlm / area / resection / setting out	Piece	2	12,000,000	Workshop	PWODM401 PWOSC401 PWONB401 PWOCM401 PWODT401
21	GPS	• Receiver type: Multichannel (12-CH, SBAS 1-CH) all-in-view • Frequency: 1575.42MHz ± 1MHz (C/A code) • Sensitivity: -135dBm for acquisition, -	Piece	2	300,000	Workshop	PWODM401 PWOSC401 PWONB401 PWOCM401

		138dBm for tracking Accuracy: 30m 2DRMS (C/A code, HDOP<=4, SA OFF) 7m 2DRMS when SBAS corre					PWODT401
22	Plumb bob	- Color: Silver - PREMIUM QUALTY: Made from finest quality of Solid Mild steel material making it best measuring layout during construction - WEIGHT: 350gram weight in plumb bob tool and full solid material - SIZE: 3 inches long plumb bob	Piece	30	6,650	Workshop	PWODM401 PWOSC401 PWONB401 PWOCM401 PWODT401
23	Drawing table	• Board Shape: Rectangular • Top size: 37.5" x 72" • Style (Material): steel or wood • Tilttable Range: 0° to 80° • Height: 37" • Accessories: Drafting Lamp, Straightedge Parallel Bar, Drafting Chairs & Stools	pce	30	50000	Drawing room	PWOTD401
24	Mini drafter	• Size: 420 mm x 594 mm • Material Type: Stainless Steel	pce	30	7000	Drawing room	PWOTD401

25	Water tank	Material: PVC Pipes produced by Polyvinyl Chloride raw material Properties: Resistant to bad weather condition Capacity: (1500- 5000)L	Piece	2	600,000	Workshop store	PWODM401 PWOSW401 PWOTA401 PWOC401 PWOST401 PWONB401 PWOCM401 PWOCOT401 PWODT401
26	Electronic Digital Level	Digital Level 0.7 mm Performance Specifications - Accuracy : DIN 18723, standard deviation height measuring per 1 km of double leveling - Electronic measurement: - Invar precision bar code staff: 0.7 mm - Standard bar code staff: 1.3 mm - Visual measurement: 2.0 mm - Distance measurement: with a 20 m sighting distance - Invar precision bar code staff: 25 mm - Standard bar code staff: Standard bar code staff - Visual measurement: 0.3 m - Range: - Electronic measurement: 1.5 m–100 m	Piece	2	4,500,000	Workshop store	PWODM401 PWOSC401 PWONB401 PWOCM401 PWODT401

		- Visual measurement : from 1.3 m - Electronic measurement: - Resolution height measurement: 0.1 mm					
27	Trucks	Horse power : 336hp Drive Model : 6x4 Payload : 35t Cargo Box Size : 6000*2300*1000mm Tires : 12.00R20	Piece	1	25,000,000	Workshop store	PWODM401 PWONB401 PWOCM401 PWOCOT401 PWODT401
28	Compactors (hand compactor)	Operating weight: 19050 kg Drum width: 2130 mm Engine model: Deutz Rater Power: 150 kW	Piece	1	12,000,000	Workshop store	PWODM401 PWONB401 PWOCM401 PWODT401
29	Excavator	Type: Crawler Excavator Usage: Special Excavator, Marine Excavator, Mining Excavator Bucket: Backhoe Transmission: Hydraulic Transmission Drive Type: Internal Combustion Drive Bucket Capacity: 0.5~1.0m ³	Piece	1	125,000,000	Workshop store	PWODM401 PWONB401 PWOCM401 PWODT401

30	Wheel loader	• Rated Load: 1-3t • Transmission: Hydraulic - Mechanical • Load and Unload Mode: Front Discharge • Walking Mode: Wheeled • Type: Medium-sized Loader • Overall Dimensions: 5800×1730×2800mm • Rated Capacity: 1.03m³ • Operating Weight: 4000kg • Lifting Time: 4s • Rated Power: 50kw/47kw • Wheel Base: 2160mm • Production Capacity: 500unit/Month	Piece	1	120,000,000	Workshop store	PWODM401 PWONB401 PWOCM401 PWODT401
31	Backhoe	Operating Weight - Maximum 24251 lb • Dig Depth - Standard 15.1 ft • Net Power - SAE J1349 107 HP • Engine Model: C3.6 86 kW (115 hp) Electronic Turbo Intercooled • Air Conditioning 99 lb	Piece	1	99,200,000	Workshop store	PWODM401 PWONB401 PWOCM401 PWODT401
32	Motor grader	Ambient Capacity 50° C 122° F • Net Power is tested per ISO 9249, SAE J1349, and EEC 80/1269 Standards in effect at the time of manufacture. • VHP Plus is standard for the 120 and	Piece	1	86,100,000	Workshop store	PWODM401 PWONB401 PWOCM401 PWODT401

		120 all-wheel drive (AWD). • Rated speed at 2,000 rpm.					
33	Concrete Spraying machine/ Concrete pump	Product name: Dry Shotcrete machine Wet shotcrete machine Brand Sinch Sinch Model Number: PZ-6 GSP-7 Flow(m³/h): 6m³/h 6~7m³/h Air Pressure: 0.2-0.4Mpa 0.6~0.8MPa Power: 5.5Kw/380V/50hz 7.5Kw/380V/50hz Conveydistance/height: 100m/20m 30m/20m Maximum aggregate size: 15mm 15mm Outlet diameter: 51mm 57mm Weight: 600KG 900KG Dimension: 1520*820*1280mm 2000*900*1300mm Air consumption: 8-10m³/min 10-15m³/min Accelerator feeding capacity: 0 0-108L/H	Piece	1	13,920,000	Workshop store	PWONB401 PWOCM403
34	Dumper	MAX SAFE LOAD 3000 kg FUEL CAPACITY 24.5 Litres UNLADEN WEIGHT 2200 kg WATER CAPACITY 990 Litres TYRES 295/80 x 15.3	Piece	1	4,500,000	Workshop yard	PWONB401 PWOCM401

35	Stone crusher machine	CAPACITY : 16t/h-899t/h MAX FEEDING SIZE: 340mm-1020mm	Piece	1	8,500,000	Workshop store	PWONB401 PWOCM401
36	Bull dozer	LifeTrac is 4"x4"x1/4" tubing, the bulldozer should identical frame with 3/8" or 1/2" wall thickness instead of 1/4" walls - for design redundancy compared to the LifeTrac platform 1/2" tubing is 27 lb/foot - approx. 100' required for frame - or 2700 lb for frame only. Cubic yard of cement is 3000 lb, so 4 cubic yards are required if gross weight of bulldozer proper is 8000 lb. Vehicle weight should be approximately 20,000 lb - or about 7,000 lb of metal and with modular concrete blocks providing the remainder of the necessary weight Metal frame should be a space frame to save materials while providing necessary structural stability 3" bearings - https://www.surpluscenter.com/item.asp?item=1-215-48-4-	Piece		13,850,000	Workshop store	PWONB401 PWOCM401

		C&catname=powerTrans 4 wheel drive Must use bolt-through wheel attachment to shaft as in LifeTrac, for maximum wheel mounting simplicity Complete materials cost estimate of under \$16k in materials, not counting 20,000 pound gross vehicle weight, weighed down with modular concrete weights 24,000 lb of pushing force					
37	Graduated plastic cylinder	Clear Graduated 1000ml Plastic Measuring Cylinder With Plastic Hexagonal Base	pcs	6	40000	Class room Workshop	PWOTA401 PWOC401
38	rubber stopper	GWA-512	pcs	6	13000	Class room Workshop	PWOTA401
39	Vicat apparatus	Automatic Vicat Apparatus (includes Needle Sets and Moulds for EN and ASTM) Power Supply 220 - 240 V AC, 50 - 60 Hz, 1 ph	Pcs	4	2000000	Class room Workshop	PWOC401

40	irrigator tube	The PE pipe made from the PE materials, used as the water transport main and sub-main pipe in the drip irrigation and spray irrigation system. No smell, long working life, easy installation.	pcs	6	3000 per m	Class room Workshop	PWOTA401
41	weighted foot assembly	SEA-100A	pcs	4	95000	Class room Workshop	PWOTA401
42	siphon assembly	SEA-100B	pcs	4	30000	Class room Workshop	PWOTA401
43	glass or plastic container with cover	SC-404 5oz Aluminum Sample Containers are used in Atterberg Limits Testing to collect and store soil samples for testing. They come with tight-fitting lids to prevent moisture changes to the specimen. Available in a package of 12.	pcs	50	1000	Class room Workshop	PWOTA401 PWOST401
44	glass funnel	Conventional polyethylene; non-toxic, non-contaminating; withstands nearly all chemicals at room temperature for 24 hrs.	Pcs	20	1000	Class room Workshop	PWOCT401

45	Le-chatelier flask	Zero mark represents 250 ml, the capacity of the large bulb; neck graduations from 0-1 ml in 0.1 ml divisions with two extra 0.1 ml graduations above the 1.0 and below the 0 marks; bulb portion of neck holds 17 ml; top portion of neck graduated from 18-24 ml in 0.1 ml divisions; 24 ml capacity	Pcs	30	10000	Class room Workshop	PWOCT401
46	vibrator	Vibrator Head Diameter x Length (mm) $\Phi 35 \times 410$ Flexible Shaft Diameter x Length (mm x m) $\Phi 12 \times 5.0$ Rubber Hose Diameter x Length (mm x m) $\Phi 32 \times 5.0$ Amplitude (mm) 1.5 Vibration per Minute (vpm) 9000 - 12000 Overall Weight (kg) 17.0	Pcs	2	1000000	Class room Workshop	PWOCT401
47	water bath	used in cement soundness test	Pcs	4	1162775.25	Class room Workshop	PWOCT401
48	Le-chatelier mould Apparatus	Cement Soundness Stainless Steel Le Chatelier Mould	Pcs	30	6000	Class room Workshop	PWOCT401

49	discharge tube	AC-150 Aggregate Crushing Value Apparatus comprising 150 mm nominal diameter steel cylinder, plunger and base plate. Weight: 16.6 kg, Metal Measure 115 mm diameter x 180 mm deep. Weight: 870 g, Tamping Rod 16 mm diameter x 600 mm long with rounded end.	pcs	6	750000	Class room Workshop	PWOTA401
50	Sand Equivalent Shaker	SE-2B, SE-2BF	pcs	1	4000000	Class room Workshop	PWOTA401
51	projector	This projector produces a bright, rich-looking image with more accurate color than most competitors can offer. It's easy to set up and quiet in operation, but it lacks features like Wi-Fi and Bluetooth.	pcs	3	500000	Class room Workshop	PWOTA401 PWOCOT401 PWOCOT401
52	computer	LPA-713	pcs	3	3000000	Class room Workshop	PWOTA401 PWOCOT401 PWOST401 PWOCOT401
53	balance	Weigh-below capability, Accurate and economical, Removable stainless steel weighing pan, Self-aligning beam	pcs	2	400000	Class room Workshop	PWOTA401 PWOST401 PWOCOT401

54	printer	Advanced Software enhances computer control of LP-72 and LP-74 Standard and High-Performance Rotational Viscometers for improved analysis and reporting of data	pcs	1	300000	Class room Workshop	PWOTA401 PWOCOT401 PWOCOT401
55	white board	Durable White board / Dry Erase / Aluminum Frame	pcs	1	150000	Class room Workshop	PWOTA401 PWOCOT401 PWOCOT401
56	chalkboard	The frame has a sturdy pine wood	pcs	1	110000	Class room Workshop	PWOTA401 PWOCOT401
57	Sieves	Applications: separation, fractioning, particle size determination; Field of application: chemistry / plastics, construction materials, engineering / electronics, environment / recycling, geology / metallurgy, glass / ceramics; Feed material: powders, bulk materials; Measuring range*:25 μ m - 125 mm; Sieving motion: throwing motion with angular momentum - 3D movement; Max. batch / feed capacity:15 kg ;Max. number of fractions:12 / 8*;Max. mass of sieve stack:50 kg; Amplitude: digital, 0 - > 2 mm;Time display:digital, 0 - 99	Sets	4	800000	Class room Workshop	PWOTA401 PWOST401

		min;Suitable sieve diameters:400 mm / 450 mm;Max. height of sieve stack:830 mm;Clamping devices;standard" (two models, one for dry, one for wet sieving);Electrical supply data:different voltages;Electrical supply data different voltages Power connection:1-phase;W x H x D:680 x 280 x 680 mm; Net weight: 140 kg; Standards: CE.					
58	Thickness gauge	HM-925, HM-924	pcs	6	80000	Class room Workshop	PWOTA401
59	length gauges	HM-926	pcs	6	130000	Class room Workshop	PWOTA401
60	sieve shaker	SS-15, SS-15F, SS-15D, SS-15DF, SS-14D, SS-14DF	pcs	3	1000000	Class room Workshop	PWOTA401 PWOST401
61	compression machine	Compression testing machine 3000 kN, motorized with Autotec control unit, to test cubes up to 200 mm side and cylinders up to diameter 160x320 mm.	Pcs	2	7809347	Class room Workshop	PWOTA401 PWOCOT401 PWOCOT401
62	steel cylinder	HM-143, HM-142, HM-144	pcs	5	130000	Class room Workshop	PWOTA401

63	base plate	Clear glass plate with a regular bend. Approximate exterior size: 3 ½" x 5" x .25" deep Approximate base size: 2" x 3" Glass plate is 1/8" thick.	pcs	5	10000	Class room Workshop	PWOTA401 PWOCOT401 PWOCOT401
64	cylindrical steel cup	Cal-Mil 1017-Solid Stainless Steel Cylinder	pcs	5	20000	Class room Workshop	PWOTA401
65	metal hammer	Hammer Type/; Sheet Metal Hammer, Hammer Material: Rubber, Peen Weight: 628g,452g	pcs	4	7000	Class room Workshop	PWOTA401
67	cylindrical metal	OEM Sheet Metal Processing Stainless Steel Cylindrical Tube Parts	pcs	8	5000	Class room Workshop	PWOTA401
68	drying oven	Standard Dispatch electric ovens with 18.1ft3 (196L) capacity and forced air convection offer optimal heat distribution, and faster, more even drying.	Pcs	2	6000000	Class room Workshop	PWOTA401 PWOST401
69	Soaking tank	Inside Dimensions21.5 x 13 x 13.75in (546 x 330 x 349.25mm), WxDxH Product Dimensions24 x 15 x 14.5in (609.6 x 381 x 368.3mm), WxDxH	Pcs	6	50000	Class room Workshop	PWOTA401 PWOST401

		Estimated Shipping Weight6.0lb (2.72kg)					
70	Wire Mesh Bucket	SG-7A	pcs	5	150000	Class room Workshop	PWOTA401
71	Los Angeles abrasion machine	LAAM01 Los Angeles Abrasion Tester	pcs	2	1200000	Class room Workshop	PWOTA401
72	Rebound hammer	Weight:1.4 kg;Is It Portable: Portable;Model Name/Number:Ectha Pro;Usage/Application:Laboratory;MEASURE RANGE:5-120 N per MM per Square;IMPACT ENERGY:2.207 Nm;LIMIT:Thickness > 100mm;DIMENSIONS:(A)320 x (B)65 x (C)80 mm	Pcs	4	521869.56	Class room Workshop	PWOCOT401
73	Mixer for cement	5qt Laboratory Mixers are ideal for heavy applications and have a 5qt (4.7L) capacity and selectable operating speeds. These units include a modified model featuring an Adjustment Bracket to meet the requirements of ASTM C305, C227, and C109 (AASHTO T162 and T106) and other tests	Pcs	2	600000	Class room Workshop	PWOCT401

74	sample splitters	Jones Splitters are designed for sampling fine powders and granular materials. Jones Riffle Splitters have stainless feeder guides & some models have gated hoppers SP-171, SP-171X, SP-173, SP-174, SP-175, SP-177	Pcs	2	600000	Class room Workshop	PWOST401
75	hydrometer	S156-01 KIT HIGH SPEED STIRRER, 10.000 rpm, complete with cup, paddle, anti-splash baffle, for dispersing soil particles in water. 230V 1ph 50/60Hz Total weight: 60 kg approx. NOTE: each item can be ordered separately	Pcs	5	81500	Class room Workshop	PWOST401
76	thermometer	Lollipop Thermometer by Traceable features a waterproof & shock resistant housing, ideal for wet or in-field laboratories, range is –58 to 572°F (–50 to 300°C).	Pcs	4	80000	Class room Workshop	PWOST401
77	Universal extruder - hand operated (CBR & Proctor)	16-T0080	pcs	2	200000	Class room Workshop	PWOST401
78	Dust Blower	N/A	pcs	2	20000	Class room Workshop	PWOST401

79	Soil Hydrometer Bulb - 151H	N/A	pcs	10	50000	Class room Workshop	PWOST401
80	Soil Hydrometer Bulb - 152H	N/A	pcs	10	50000	Class room Workshop	PWOST401
81	High speed stirrer for Hydrometer	N/A	pcs	2	100000	Class room Workshop	PWOST401
82	hydrometer cylinders + Rubber Bungs	22-D1006/A & 22-T0060/31	pcs	6	40000	Class room Workshop	PWOST401
83	Standard proctor Rammer	33-T0075	pcs	5	45000	Class room Workshop	PWOST401
84	Modified Proctor Rammer	33-T0076/B	pcs	5	45000	Class room Workshop	PWOST401
85	Filter paper - 150mm	86-D1800	Packs (100p cs)	5	80000	Class room Workshop	PWOST401
86	Lightweight Dynamic cone penetrometer	16-T0013	Pcs	5	1500000	Class room Workshop	PWOST401

87	Cassagrande apparatus	Model S172 ;STANDARDS: ASTM D4318 AASHTO T89 UNI 10014 comparable to: BS 1377:2 UNE 7377	Pcs	5	165300	Class room Workshop	PWOST401
88	CBR Loading machine	50 kN ASTM version Model S211 KIT	Pcs	2	1121530	Class room Workshop	PWOST401
89	Desiccators	Desiccators, Scheibler, complete with cover, but without plate. Clear heavy glass, ground cover with knob.	Pcs	5	70000	Class room Workshop	PWOST401
90	Swelling gauge	Swelling Tripod fitted with dial gauge, Model: S200-05	9		20000	Class room Workshop	PWOST401
91	Sand replacement	Capacity 100mm / 150mm / 200mm	Pcs	5	1000000	Class room Workshop	PWOST401
92	Cone Penetrometer	The H-4236 cone penetrometer with dial indicator features a 6" (150mm) diameter dial gauge, which is easily readable and is graduated in 0.1mm divisions. Overall dimensions are: 8.6" x 6.7" x 16.1" (220 x 170 x 410mm).	PCS	5	100000	Class room Workshop	PWOST401

93	membrane densitometer	1600 MI Membrane Densitometer according ASTM D2167	Pcs	5	30000000	Class room Workshop	PWOST401
94	concrete mixer	220 - 240 V 50 Hz	Pcs	3	400000	Class room Workshop	PWOCOT401

3.2.2. Category 2: Tools

<i>No</i>	<i>Tools</i>	<i>Specification</i>	<i>Unity</i>	<i>Quantity</i>	UNIT PRICE (Rwf)	Type of room	Module code
1	Wire hand brushes	• Type: Heavy duty brush • Bristle material: Steel • Bristle length: 37mm • Number of rows: 4 • Brush depth: 290mm • Brush width: 150mm	Piece	30	3,500	Workshop store	PWODM401 PWOSW401 PWOTA401 PW OCC401 PWOST401 PWONB401 PWOCM401 PW OCT401 PWOCOT401 PWODT401

2	Straight edge	• Type: Lightweight and accurate straight edge • Material: Steel • Gauge: 1.5mm • Size: (40 X 40)mm	Piece	30	10,000	Workshop store	PWODM401 PWOSW401 PWOC401 PWONB401 PWOCM401 PWODT401
3	Spade	• Material: Stainless steel • Handle material: wooden /steel • Blade dimension L x W (shoulder) x Thickness (mm): 320 x 160 x 1.75 min, • Blade lift (mm): 55, • Blade dish (mm): 25 lateral • Hole diameter: front side 36mm, back side 40mm	Piece	30	5,500	Workshop store	PWODM401 PWOTA401 PWOC401 PWOST401 PWONB401 PWOCM401 PWOCOT401 PWODT401
4	Shovel	• Dimension: 295mmx225mm • Material: Stainless steel • Handle material: wooden /steel • Hole diameter: front side 36mm, back side 40mm • Weight: 1Kg +/-50g without handle • Blade lift (mm): 55, • Blade dish (mm): 25 lateral	Piece	30	5,500	Workshop store	PWODM401 PWOTA401 PWOC401 PWOST401 PWONB401 PWOCM401 PWOCOT401 PWODT401

							PWODT401
5	Hoe	• Material: Stainless steel • Head only, approx. 23x17cm, • 1.4kg, forged carbon steel. • Handle material: wooden	Piece	30	4,000	Workshop store	PWODM401 PWOC401 PWOST401 PWONB401 PWOCM401 PWODT401
6	Pick axe	• Point + chisel ends, • Fitting: Eye oval, • Head dimensions(L*W in mm) 610 x 40	Piece	30	7,000	Workshop store	PWODM401 PWOC401 PWOST401 PWONB401 PWOCM401 PWODT401
7	Machete / panga	• Blade material: High carbon steel • Handle material: Wood • Blade length: 18 inches • Weight: 0.2 kg	Piece	30	3,000	Workshop store	PWODM401 PWOC401 PWONB401 PWOCM401 PWODT401

8	Machete	- Bush-craft machete, - Bland material: Carbon Steel, - Blade length 40.6cm, - Blade color: Silver, - Blade Grind: Full Flat taper w/Flat bevel, - Handle material: Laminated Hardwood, - Sheat color: Brown,	Piece	30	3,000	Workshop	PWODM401 PWOCC401 PWONB401 PWOCM401 PWODT402
9	Trowels	• Shape :Round point brick trowel, with wood handle Blade and handle spike forged in one piece. • Material: High grade steel, Hardened and tempered, ground polished •Handle material: Hard wood handle with polished steel ferrule. •Size: Blade length: 200mm +/-2mm •Size: Blade width: 120mm +/-2mm •Size: Handle length: 140mm +/-10mm •Usage/Application: School.	Piece	30	2,500	Workshop store	PWODM401 PWOCC401 PWOST401 PWONB401 PWOCM401 PWOCOT401

10	Bucket /Basin	•Material: Plastic •Capacity: 10litters	Piece	15	1,000	Workshop store	PWODM401 PWOTA401 PWOC401 PWOST401 PWONB401 PWOCM401 PWOCOT401 PWODT401
11	Metallic bucket/ Asphalt metallic pan	• Material: stainless steel • Size: 1050 X 710 mm. • Weight: 20 kgs.	Piece	30	1,500	Workshop store	PWODM401 PWOTA401 PWOC401 PWOST401 PWONB401 PWOCM401 PWOCOT401 PWODT401
12	Calibrated spirit level	• Material: Good quality aluminium body spirit level, shockproof. • Size : Length of 600 mm which includes 3 vials: horizontal, vertical, and 45° angle.	Piece	30	4,500	Workshop store	PWODM401 PWOC401 PWOSW401 PWOST401 PWONB401 PWOCM401 PWODT402

13	Claw hammer	• Handle material : Metal • Head Material : High carbon steel, forged steel head hardened • 0.45 kg	Piece	30	5,000	Workshop store	PWODM401 PWOCC401 PWOSW401 PWONB401 PWOCM401 PWODT403
14	Club hammer	• 7.5 kg • Handle material : Metal • Head Material : High carbon steel, forged steel head hardened	Piece	30	5,000	Workshop store	PWODM401 PWOCC401 PWONB401 PWOCM401 PWODT404
15	Calibrated builder's square	• Material: Anodized Aerospace aluminium (Lightweight) • Size: 16 inches x 24 inches, 900 (right angle)	Piece	30	5,000	Workshop store	PWODM401 PWOCC401 PWOSW401 PWONB401 PWOCM401 PWODT405
16	Marker pens	• Color: Multi colour • Hardness: Medium soft • Ink type: Dry Erase • Point diameter: 4.5 mm • Size: normal • Material: Plastic(polypropylene) • Dimension: 142*15mm	Piece	30	1,000	Workshop store	PWODM401 PWOTA401 PWOCC401 PWOST401 PWONB401 PWOCM401 PWOCOT401

							PWODT401
17	Chisel	• Type: Masonry chisel • Blade material: Chrome Vanadium steel • Size: Blade width: 23mm	Piece	30	1,000	Workshop store	PWODM401 PWOC401 PWONB401 PWOCM401 PWODT401
18	Calibrated tape measure	• Size : Retractable tape measure, length 10 m (ten meters), width 25mm; • Material: Thin plastic-coated metal, calibrated on one side with 1mm and 1cm lengths marked in black and 10cm lengths marked in red, for ease of reading,for superior abrasion resistance and longer life • Fold out winding handle for rapid tape rewind • With locking mechanism and metal clip for attachment to user's clothing	Piece	30	1,000	Workshop store	PWODM401 PWOC401 PWOST401 PWONB401 PWOCM401 PWODT401

19	Hack saw	Hacksaw blade Length: 300mm Hacksaw blade Material: High Carbon Steel Hacksaw blade Thickness: (0.6-1)mm Hacksaw frame: Round Iron Frame Hacksaw handle: Aluminum Grip	Piece	30	15,000	Workshop store	PWOSW401 PWOC401 PWONB401 PWOCM401
20	Portable circular saw Machine	• 7 inch electrical circular saw • Diameter of saw blade : 20mm • Power: 1200W • Voltage: 220 V • Cutting depth : 0-55mm • No-load speed : 5000r/min • Gross weight : 5.1 KG • Package size : 295*190 mm	Piece	30	15,000	Workshop store	PWOSW401 PWOC401 PWONB401 PWOCM401
21	Electrical hand plane	• Model KP0810, • The Makita 3-1/4-Inch Planer, • 7.5 AMP Power • Planing Width : 3-1/4" • Planing Depth : 5/32" • No Load Speed : 16,000 RPM • AMPS : 7.5 • Overall Length : 11-3/8" • Net Weight : 7.3 lbs. • Max. no load speed : 16,000 RPM • Power Type : Corded • Type (Planers) : Handhel	Piece	30	200,000	Workshop store	PWODM401 PWOC401 PWONB401 PWOCM401

22	Calibrated plumb bob	• Material: Cast iron • Weight: 400g	Piece	10	7,500	Workshop store	PWOCC401 PWOCM401 PWODM401
23	Clamps	Size: Length of 100mm and throat of 65mm, Forged body with smooth acting threaded clamp. Fitted with swivel tip to reduce marking. Nett Weight: 0.60kg Material: High quality metal steel	Piece	30	30,000	Workshop store	PWOCW401 PWONB401 PWOCM401
24	Screwing machines	• Model : SF-1550 • Product Type : Bottle Capping Machine • Electrical source : AC Supply 220V • Frequency : 50/60 Hz • Power : 80 W • Case : Plastic Material • Lock & cover diameter : 10 & 50 mm • Size : 70 mm • Weight : 1 Kg (Approx	Piece	10	150,000	Workshop store	PWOCW401 PWONB401 PWOCM401
25	Drilling machines	• No Load Speed : High: 0-2,900RPM, Low: 0-1,200RPM • Voltage : 220 v • Blow rate : 6,000/19,000bpm • Cord Length : 2.5 m	Piece	10	150,000	Workshop store	PWODM401 PWOCC401 PWONB401 PWOCM401 PWODT401

26	Broom	• Wooden handle detachable: 1,2m • Brush : wood or plastic block of 300mmx60mm • Bristles length of 80 to 100mm	Piece	30	5,000	Workshop store	PWODM401 PWOTA401 PWOC401 PWOST401 PWONB401 PWOCM401 PWOCOT401 PWODT401 PWOSW401
27	Power float machine	• Weight: 80Kg • Engine Type: Honda GX200 Petrol • Path: 1000mm • Engine Speed: 3600rpm	Piece	10	300,000	Workshop store	PWODM401 PWOC401 PWONB401 PWOCM401
28	Steel float	• Material: Stainless steel • Size: 280 x 130 mm • Weight: 0.46 kg	Piece	30	4,000	Workshop store	PWODM401 PWOC401 PWONB401 PWOCM401
29	Wooden float	• Material: wood • Size: 280mm x 140mm x 70mm	Piece	30	3,500	Workshop store	PWODM401 PWOC401 PWONB401 PWOCM401

30	Pliers/Pincer	• Purpose: For pulling nails out , working with wire • Polished Heads • Length: 250mm • Material: Carbon steel • Weight: 0.54Kg	Piece	30	1,000	Workshop	PWOSW401 PWOTA401 PWOCC401 PWONB401
31	Analogue Vernier caliper	• Measuring range : 0-300mm/0-12" • Graduation : 0.05mm/ 1/128" • Jaw length : 64mm Other factures • Four usages for measuring outside diameter, inside diameter step and depth • Made of solid stainless steel • Distinct lines and figures etched against satin chrome finish • With locking screw for stable reading	Piece	30	5,000	Workshop	PWOSW401

32	Manual bar Bender	• Bending Angle: Up to 120° • Maximum Thickness: Angle Steel: Hot: 100mm x 12mm • Cold: 60mm x 8.0mm • Round Bar: Hot: 30mm Diameter • Cold: 18mm Diameter • Flat Bar: Hot: 100mm x 15mm • Cold: 100mm x 5.0mm • Square Bar: Hot: 30mm² • Cold: 16mm² • Dimensions – machine (apx): 300mm x 200mm x 230mm (l x w x h) • Dimensions – handle (apx): 800mm x 80mm x 20mm (l x w x h) • Dimensions – packing (apx): 390mm x 290mm x 280mm (l x w x h) • Weights – net/gross (apx): 31Kg/32Kg	Piece	30	2,000	Workshop	PWOSW401 PWONB401 PWOCM401
33	Range rod	- Aluminium Ranging Pole, - Model: MYPL-32, - Full closed 1,800mm, - Full extended: 3,000mm, - Weight: 930g 2 m steel rod painted red and white colours	Piece	30	5,000	Workshop	PWOSC401
34	Surveying rope	Surveying rope 100m	Piece	5	50,000	Workshop	PWOSC401

35	Compass	Size 150mm of diameter Complete in case with aluminium Telescopic/ Rigid/ wooden tripod Graduation: 30min (0.5)	Piece	2	150,000	Workshop	PWOSC401
36	Radio communicator	• Number of channels: 22, • Special feature: Weather Alert, • Frequency Range: 136 174 mhz, • Talking range: 30 Miles, • Tuner Technology: NOAA Weather Alert & weather scan technology, • Voltage: 1.5 Volts, • Water Resistance Level: Water Resistant	Piece	2	100,000	Workshop	PWOSC401
37	Calculator	Calculator Type Engineering/Scientific • Power Source Battery Powered • Screen Size 6.4 Inches • Number of Batteries 1 A batteries required. • Multi-replay function, 2-line display • Fraction calculations, Combination and Permutation • Statistics (STAT-data editor, Standard deviation, Regression analysis) 9 variable memories, Plastic keys • Comes with slide-on hard case	Piece	30	5,000	Workshop	PWODM401 PWOTA401 PWOCC401 PWOST401 PWONB401 PWOCM401 PWOCOT401 PWOCOT401 PWODT401 PWOSW401

38	T-square	• Sizes: Lengths (18-42) inches • Material: wood or acrylic plastic	pce	30	3000	Drawing room	PWOTD401
39	Set squares	• Components: a ruler , a half circle protractor, right triangles square (90-45-45 degree angles, or 30-60-90 degree angles), all with bevelled outer edges . • Material: Transparent plastic (or formerly of polished wood)	pce	30	6000	Drawing room	PWOTD401
40	French curves	• Blade Material: Plastic • Item Weight: 240 Grams • Blade Shape: Curved • Operation Mode: Manual	pce	30	2000	Drawing room	PWOTD401
41	Protractor	• Material: clear plastic • Shape: simple half-discs or full circles • Type: Metric and Imperial Graduation • Color: Clear white, Blue, Red, Green, etc.	pce	30	2000	Drawing room	PWOTD401
42	Ruler	• Material: Clear plastic • Type: Metric and Imperial Graduation; • Length: 500mm, width of 50 mm and thickness of 3mm with beveled edges • Color :Clear white, Blue, Red, Green, etc.	pce	30	1500	Drawing room	PWOTD401

43	Ink-pen	• Size: 138mm • Weight: 30g • Material: Metal • Writing Point: 0.5mm	pce	30	1000	Drawing room	PWOTD401
44	Pencil sharpener	• Weight: 150-200 gm. • Color :Yellow, Blue, Red, Green, etc. • Material: Plastic • Number Of Holes: 2 • Packaging Type: Box. • Usage/Application: School.	pce	30	500	Drawing room	PWOTD401
45	Paper clips	• 25mm, small Size, • 33mm, medium Size, • 50mm, Big sizes	pce	30	5000	Drawing room	PWOTD401
46	Water level/ hose pipe	Material: high-quality silicone tube, transparent PVC tube , lightweight , flexible,smooth inner surface allows for easy drainage and easy cleaning. Outer diameter: (3 -7)mm Inner diameter: (1-4) mm • Size: (5000-1000)mm	Piece	30	1,500	Workshop store	PWOCW401

47	Folding ruler	Width 1.5 Length 24.3 Height 3.6 Weight 133 Packaging Pallet Quantity 6480	Piece	30	4500	Workshop store	PWOCW401
48	Metallic pans	• Type: Mortar head pan • Material: Heavy gauge galvanized steel • Diameter: 46.5/47.5 cm • Height :20cm	Piece	30	10,000	Workshop store	PWOCW401 PWONB401 PWOCM401
49	Brushes	Horsehair, 8" (203 mm) long brush face, wood handle, 14" (356 mm) overall length.	Pcs	5	5000	Class room Workshop	PWOCOT401 PWOST401 PWOCOT401
50	Slump cone	Slump Test Set Weight, 6.87 kg	Pcs	4	100000	Class room Workshop	PWOCOT401
51	Shovel	Square Shovel with 9.75x12in (248x305mm) blade used for handling bulk sample materials	Pcs	5	10000	Class room Workshop	PWOCOT401 PWOST401 PWOCOT401
52	Trowels	Dimensions: 4.5x3in (114x76mm)	PCS	5	10000	Class room Workshop	PWOCOT401 PWOST401

53	Spatula	Handle Wood. Blade Stainless steel. Weight Net 2 oz. (56 g)	Pcs	30	5000	Class room Workshop	PWOCT401 PWOST401
54	Tape Measure	Blade is 3/4" wide. Spring steel belt clip	Pcs	20	6000	Class room Workshop	PWOCOT401 PWOCT401
55	Scoop	Heavy duty, 316 stainless steel body, Great for dispensing powders and granules	pcs	6	10000	Class room Workshop	PWOTA401 PWOCOT401 PWOST401 PWOCT401
56	pan	18 gauge stainless steel; one fixed and one bail handle	pcs	6	30000	Class room Workshop	PWOTA401 PWOCOT401 PWOST401 PWOCT401
57	ruler	TOP QUALITY, STRONG AND LIGHTWEIGHT: Made of Stainless Steel, the angle-izer is tough and durable to outlast any job, yet light and compact enough to be easily portable. you can hang it anywhere. This ruler is sturdy and handy for long lasting use.	pcs	6	4000	Class room Workshop	PWOTA401 PWOCOT401 PWOCT401

58	timer	The timer is made of plastic, and it is safe and non-. It is suitable for household appliance, advertising board, road lamp and so on. The timer is anti-interference, easy to use. Features: Made of plastic, safe and non-, odorless and durable	pcs	6	18000	Class room Workshop	PWOTA401
59	barrel brush	Assembled Height1.97 in ,Assembled Length9.84 in, Assembled Weight 0.13 lb,Assembled Width1.97 in,Clearout Deal No,Material Wood,size M	pcs	6	12000	Class room Workshop	PWOTA401 PWOCOT401
60	calculator	TI30XIIS Dual Power Scientific Calculator - 2 Line(s) - LCD - Battery/Solar Powered - 6.1" x 3.2" x 0.8" - 1 Each: Scientific calculator with equation recall combines statistics and advanced scientific functions.	pcs	6	20000	Class room Workshop	PWOTA401
61	tamping rod	Tip Size 25 mm, Material Type Steel, Length21 Inch, Thickness 16 mm, Diameter16 mm, Tip Size25 mm	pcs	6	15000	Class room Workshop	PWOTA401 PWOCOT401 PWOCOT401
62	metal tray	GALVANIZED TRAY SERVING TRAY IN NEW LOOK HANDMADE METAL TRAY IN NEW METAL DISH	pcs	6	20000	Class room Workshop	PWOTA401 PWOST401 PWOCOT401

63	Bowl	Bowl, stainless steel, 5 qt. (4.73L)	Pcs	10	15000	Class room Workshop	PWOCT401
64	Moulds	Cube mould type 4 part Specimen Size 150 x 150 mm Internal Dimensions dia x h, ” 150 x 150 x 150	Pcs	30	25000	Class room Workshop	PWOCT401
65	Dial gauges	Tripod to measure specimen swell has 1x0.001in dial indicator. Metric version has 25x0.01mm dial indicator.	Pcs	9	200000	Class room Workshop	PWOST401
66	Spacer disk	NA	Pcs	5	120000	Class room Workshop	PWOST401
67	Slotted disk	Dia. 152.4 mm X 177.8 mm	PCS	15	40000	Class room Workshop	PWOST401
68	buckets	The Galvanized Steel Sample Bucket, MA-950	PCS	5	20000	Class room Workshop	PWOST401

69	bristle brushes	Coarse Sieve Cleaning Brush has an 8-1/2in curved plastic handle with 1-1/2in x 1-3/4in of slanted brass wire bristles—perfect for No.30 and coarser wire cloth in round sieves.	PCS	4	5000	Class room Workshop	PWOST401
70	Cans with their lids	D=99mm/H=63mm. Press-in lid cans 375 ml made of tinplate, inside and outside blank. Versatile usable for a wide variety of dry filling goods. Also ideally suited for sample	PCS	50	2000	Class room Workshop	PWOST401
71	tin or aluminium moisture cans with lids	Sample Cup, Ø:140 mm x h:9,5 mm, Aluminium	PCS	50	5000	Class room Workshop	PWOST401
72	Desiccators	Desiccators, Scheibler, complete with cover, but without plate. Clear heavy glass, ground cover with knob.	Pcs	5	70000	Class room Workshop	PWOST401
73	riffle box	Product Code AG1420/7 Riffle Box 7 mm AG1420/13 Riffle Box 13 mm AG1420/15 Riffle Box 15 mm AG1420/19 Riffle Box 19 mm AG1420/25 Riffle Box 25 mm	PCS	3	70000	Class room Workshop	PWOST401

74	tongs	Beaker tongs, Ø: 30 mm, 200 mm	PCS	4	25000	Class room Workshop	PWOST401
75	knives	Rustproof stainless steel	PCS	4	5000	Class room Workshop	PWOST401
76	quartering cloth	HM-275	PCS	5	120000	Class room Workshop	PWOST401
77	Volumetric flask (graduation mark)	HUAOU 250mL, 500 ml and 1000ml Volumetric Flask Class A Neutral Glass with one Graduation Mark and Glass Stoppe	PCS	30	4000	Class room Workshop	PWOST401
78	grooving tool	Model S173-03, Model S173-04, Model S173-05, Model S173-06	Pcs	6 for each model	10300	Class room Workshop	PWOST401
79	wash bottle	apacity: 125-1000 ml	PCS	10	20000	Class room Workshop	PWOST401

80	evaporating dish	MA-275, MA-276, MA-277, MA-278	PCS	10	10000	Class room Workshop	PWOST401
81	Trowels stainless steel	HMA-306	PCS	5	10000	Class room Workshop	PWOST401
82	airtight container	NA	PCS	10	30000	Class room Workshop	PWOST401
83	flat glass plate	H-4253 Plastic Limit Set	PCS	5		Class room Workshop	PWOST401
84	Straight edge	• Type: Lightweight and accurate straight edge • Material: Steel • Gauge: 1.5mm • Size: (40 X 40)mm	Piece	10	10000	Class room Workshop	PWOST401
85	Water proof containers	Color Silver Product Dimensions 1.97"L x 1.97"W x 1.18"H ,Material Aluminum ,Item Weight 46 Grams	PCS	50	8000	Class room Workshop	PWOST401

86	CBR Cylinder moulds	Convenient CBR Accessory Set includes four each of BRA-60 Molds, BRA-63 Surcharge Weights, BRA-64 Surcharge Weights, BRA-67 Swell Plates, and BRA- 75 Filter Screens.	Pcs	15	2300000	Class room Workshop	PWOST401
87	steel charges	Abrasive charge set for the Gilson HM-70A Los Angeles Abrasion Machine has twelve hardened-steel balls to meet ASTM and AASHTO requirements	pcs	36	240000	Class room Workshop	PWOTA401

3.2.3. Category 3: Security materials

No	Name and description	Specifications	Unit	Quantity	Price	Type of room	Module code
1	Dust mask	Model: HD-448 2 non – woven outer layer 2 melt-brown inner filter	Pack	90	15000	Workshop store	PWODM401 PWOSC401 PWOSW401 PWOTA401 PWOC401 PWOST401 PWONB401 PWOCM401 PWOCOT401 PWODT401

2	Warning tape	Length:100m Colour: Red and white Material: Plastic	Bundl e	2	10,000	Workshop store	PWODM401 PWOSC401 PWOST401 PWONB401 PWOCM401 PWODT401
3	Overall/Lab coat	Material: Poly-cotton 80/20, 200g garmet	Pce	30	9,000	Workshop store	PWODM401 PWOSC401 PWOSW401 PWOTA401 PWOCM401 PWOST401 PWONB401 PWOCM401 PWOCOT401 PWODT401

4	Safety shoes	Material: Leather with steel toe cap	Pce	30	60,000	Workshop store	PWODM401 PWOSC401 PWOSW401 PWOTA401 PWOC401 PWOST401 PWONB401 PWOCM401 PWOCOT401 PWODT401
5	Fire extinguisher	Fire Rating 34 A 233 B C. Extinguishing agent EPW 18462(ABC Favorit Teritia). ABC powder MAP 20%. PROPELLANT Dehumidified air or N2,15 Bar at 20 0 C 3 kg	Pce	5	50,000	Workshop	PWODM401 PWOSC401 PWOSW401 PWOTA401 PWOC401 PWOST401 PWONB401 PWOCM401 PWOCOT401 PWODT401

6	Rubber Gloves/	Material: 6 OZ Cotton jersey palm lining 8/9 mm thickness Stitching: 10-12 inch	Pce	30	5000	Workshop store	PWODM401 PWOSC401 PWOSW401 PWOTA401 PW OCC401 PWOST401 PWONB401 PWOCM401 PW OCT401 PWOCOT401 PWODT401
7	Helmet	Model: 509-LX Material: HDPE Shell with cotton sweatband and leather impact cushion Size: 53-64cm	Pce	30	6800	Workshop store	PWODM401 PWOSC401 PWOSW401 PWOTA401 PW OCC401 PWONB401 PWOCM401 PWODT401

8	Goggles	Model: 3M 1621AF safety goggles for splash Materials: polycarbonate lenses and pliable vinyl frames with vents enhance air circulation	Pce	30	6800	Workshop store	PWODM401 PWOSC401 PWOSW401 PWOTA401 PWOC401 PWOST401 PWONB401 PWOCM401 PWODT401
9	Umbrella for surveyors	Frame material: Stainless steel Shutter material: polyester Opening diameter: 58 inch	Pce	6	6000	Workshop store	PWOSC401

3.2.4. Category 4: Consumables and raw materials

No	Name and description	Specification	Unit	Quantity	Price	Type of room	Module Code
1	Marker pen	Material: Plastic Ink type: Dry& wet erase Point diameter: 2-3mm	Box	60	3500	Workshop Classroom office.	PWODM401 PWOSC401 PWOSW401 PWOTA401 PWOC401 PWOST401 PWONB401 PWOCM401 PWOTD401 PWOCOT401 PWODT401

2	Chalks	Colors: Customized Shape: cylindrical, extruded Length: 80 mm, Diameter: 10 mm. Material: 60% Calcium carbonate, 29% Talcum Powder, 11% Bentonite	Pack	50	5000	Workshop Classroom	PWODM401 PWOSC401 PWOSW401 PWOTA401 PWOC401 PWOST401 PWONB401 PWOCM401 PWOCOT401 PWODT401
3	Lubricants	Material: 80–90% petroleum hydrocarbon distillate with 10–20% additives to impart specific properties to the oil. State: Viscous Color: white, gray, black, silver, blue, green, red, purple, and every variation of brown, from golden honey to dark, earth tones.	liter	100	1,250	Workshop/St ore	PWOSW401 PWOTA401 PWOST401 PWONB401 PWOCM401 PWOCOT401
4	Cement,	Class 1:42.5 Class 1:32.5 Class 1:22.5	kg	50	12000	Workshop Laboratory	PWODM401 PWOC401 PWOCOT401

5	Stones	Material: Quarry stone	m3	10	16,000	Workshop	PWODM401 PWOTA401 PWOC401 PWONB401 PWOCM401
6	Cobbles	Cobblestone: Size of 10cm*10cm and 20cm*20cm Granite					PWONB401 PWOCM401
7	Sand (fine aggregate)	It should be chemically inert. It should be clean and coarse. It should be free from any organic or vegetable matter. Usually 3 to 4% clay is permitted. It should contain sharp, angular, coarse and durable grains. It should not contain salts which attract moisture from the atmosphere. It should be well graded i.e., should contain particles of various sizes in suitable proportions. It should pass BIS No. 480 mesh sieve and should not pass BIS No. 15 sieve. The fineness modulus of sand should be between 2 and 3	m3	8	14000	Workshop yard	PWODM401 PWOTA401 PWOC401 PWOST401 PWONB401 PWOCM401 PWOCOT401 PWODT401

8	Water	Colour: Colourless State: Liquid Density: 1 g/cm ³	m ³	20	1000	Workshop	PWODM401 PWOTA401 PW OCC401 PWOST401 PWONB401 PWOCM401 PW OCT401 PWOCOT401 PWODT401
9	Nails	Size:5mm,6mm,8mm,10mm, 12 mm, Material: Steel Colour: Grey	kg	50	2800	Workshop store	PWODM401 PWOSC401 PW OCC401 PWOST401 PWONB401 PWOCM401 PWODT401

10	Aggregate	Materials Model: Crushed stone Size: 5mm to 21mm	m3	10	25,200	Workshop/Store	PWODM401 PWOSC401 PWOSW401 PWOTA401 PW OCC401 PWOST401 PWONB401 PWOCM401 PW OCT401 PWOCOT401 PWODT401
11	Welding electrodes	Material: mild steel, iron-free, high carbon steel or cast iron Size: 3/32 inches	Box	2	7,260	Workshop Store	PWOSW401
12	Steel bar	Material: high yield steel & mild steel Colour: Silver or Grey Shape: Round, Square, and Flat bars. Size: 8mm, 10mm, 12mm, 16mm	Quintal	100	15,000	Workshop/Store	PWOSW401 PWONB401 PW OCC401 PWOCM401

13	Building line	Material: Plastic Colours: Green, Red Orange and Yellow	Bundl e	30	500	Workshop/St ore	PWODM401 PWOSC401 PWOSW401 PWOTA401 PW OCC401 PWOST401 PWONB401 PWOCM401 PW OCT401 PWOCOT401 PWODT401
14	Books	Engineering Books Especially highway books	ff		2,000,000	Library	PWODM401 PWOSC401 PWOSW401 PWOTA401 PW OCC401 PWOST401 PWONB401 PWOCM401 PW OCT401 PWOCOT401 PWODT401

15	Pegs	Material: Timber and Wood Size: 2.5 cm Length: 50 cm Shape: square	Pce	900	1000	Workshop Store	PWODM401 PWOSC401 PWOSW401 PW OCC401 PWONB401 PWOCM401 PWODT401
16	profile board	Material: Timber and Wood Size: 5 cm Shape: square	Pce	500	1000	Workshop/St ore	PWODM401 PWOSC401 PWOSW401 PW OCC401 PWONB401 PWOCM401 PWODT401
17	admixtures	Slump retention polycarboxylate super plasticizer Poly Carboxylate Ether Polycarboxylate Ether (PCE); Hyper Plasticizers Polycarboxylic Acid Ether (PCA); Polycarboxylic Acid Super plasticizer Water Reducing Agent; Water Reducing Admixture.	liter	6	8,000	Workshop/st ore	PW OCC401 PWONB401 PWOCM401 PW OCT401 PWOCOT401

18	pipes	Material: PVC Diameter : 250mm	Pce	20	10,200	Workshop	PWODM401 PWOCM401 PWODT401
19	pipes	Material: PVC Diameter : 50mm	Pce	20	6,000	Workshop	PWODM401 PWOCM401 PWODT401
20	pavers	Materials: Cement concrete paver bricks Thicknese: 8cm	Pce	1,000	300	Workshop yard	PWONB401 PWOCM401
21	screws	Drywall Screw Masonry Screw Sheet metal Screw	box	25	5,000	Store	PWOSC401 PWOSW401
22	binding wires	Should be 16 or 18 gauge annealed wire conforming to IS 280. It shall be free from rust, oil, paint, grease, loose mill scale or any type. The Tensile Strength: 250-430 N/mm2.	Kg	50	300	Store	PWOSW401 PWOCM401
23	murram	Material: Lateritic materail	m3	20	3,000	storing yard	PWONB401 PWOCM401

24	geotextile membrane	Material: Polymeric: Polypropylene, polyester, high density polyethylene Structure: Flexible permeable fabric	m2	10	2,500	Store	PWONB401 PWOCM401 PWODM401
25	Geogrid	Material: Polymeric: Polypropylene, polyester, high density polyethylene Structure: Mesh like planar product	m2	12	10,000	Store	PWONB401 PWOCM401 PWODM402
26	paint	Alkyd enamel outdoor Alkyd mixed paint bright industrial anti-corrosive metallic paint High Quality Material anti-static floor Epoxy Floor Coating Paint floor epoxy paints High quality anticorrosive strong adhesion alkyd paint alkyd paint anti rust liquid coatings Iron surface Rust Proof Metal Spray Paint Waterborne Paint Primer Alkyd Based Coating Anticorrosive Industrial Water-based Paint	liter	30	12,000	Store	PWODM401 PWOSC401 PWONB401 PWOCM401

27	Papers	Material: 100% wood pulp Size: A4, Letter size(8.5"x11"), Legal size(8.5"x14") Whiteness: 98-100% Packing: 500 sheets per ream		25	6,000	Store	PWODM401 PWOSC401 PWOSW401 PWOTA401 PW OCC401 PWOST401 PWONB401 PWOCM401 PW OCT401 PWOCOT401 PWODT401
28	Rubbers	Rubber Materials and Products Rubber Damper Rubber Seal Silica Rubber Magnetic Rubber		100	200	Store	PWODM401 PWOSC401 PWOSW401 PWOTA401 PW OCC401 PWOST401 PWONB401 PWOCM401 PW OCT401 PWOCOT401 PWODT401

29	Pencils	High quality Yellow Black Standard Pencils .Custom HB Pencil Red Board Wood Yellow Body Children Pencil with Eraser. 7 Inch Factory Direct Wholesale Natural Wood HB Lead Pencils with Best Price		100	200	Store	PWODM401 PWOSC401 PWOSW401 PWOTA401 PWOC401 PWOST401 PWONB401 PWOCM401 PWOCOT401 PWODT401
30	Flip chart	KBW 40x28 Height Adjustable Flipchart Easel Board Magnetic Tripod Stand Whiteboard Dry Erase Easel Board for Office Home School 7.9-22B1 Dry erase whiteboard magnetic back white magnetic board magnetic whiteboard sticker		4	50,000	Workshop Classroom and store.	PWODM401 PWOSC401 PWOSW401 PWOTA401 PWOC401 PWOST401 PWONB401 PWOCM401 PWOCOT401 PWODT401

31	Lead mine	E-motion pure black twist pencil, 1.4 mm black. Mechanical pencil Grip matic 1377, 0.7 mm Mechanical pencil Grip 2011, 0.7 mm silver		50	1,000	Store	PWODM401 PWOSC401 PWOSW401 PWOTA401 PWOC401 PWOST401 PWONB401 PWOCM401 PWOCOT401 PWODT401
32	Ink	SPRAYON STENCIL SPRAY INKS MARSH STENCIL SPRAY INKS SPRAYON & MARSH STENCIL INKS; Characteristics; Stencils. Surfaces; #42M; Characteristics; Stencils. Surfaces; Porous, Non-Porous Metal (drums), Lumber, Wood, Concrete, Rubber. Application; Stencil - Foam, Rubber, Fountain Roller, Hand Stamp. Drying Time; 2 Minutes. Colors: Black, Red, Yellow, White, Green, Orange, Med Blue, Dark Blue. Application; Aerosol Can. Drying Time; 15 - 30 Seconds.	ff		100,000	Store	PWODM401 PWOSC401 PWOSW401 PWOTA401 PWOC401 PWOST401 PWONB401 PWOCM401 PWOTD401 PWOCOT401 PWODT401

		Colors: Black, Blue, Red, Yellow, White					
33	eraser	General Description: Eraser, soft, for pencil, box of 20 Technical Specifications: Eraser, soft, white, synthetic or natural rubber, non-toxic, dimensions are 30 x 20 x 10mm. The eraser is able to remove pencil marks without staining and erode at a uniform rate. Weight and Volume: Estimated weight: 0.250kg Estimated volume: 0.188cdm Packaging and labeling: One box of 20 erasers, over-packed with 5 boxes (each of 20 erasers, i.e. 100 erasers in all).	Pce	100	300	Store	PWODM401 PWOSC401 PWOSW401 PWOTA401 PWOC401 PWOST401 PWONB401 PWOCM401 PWOTD401 PWOCOT401 PWODT401

34	Cutting disk	Model: A 30 R BF Diameter (mm) : 180 Bore diameter (mm) : 22.23 Thickness (mm) : 3.0 Wheel Shape : Straight	box	50	3250	Workshop store	PWOSC401
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4. Training facilities

4.1. Furniture and office materials

No	Equipment	Specification	Unity	Quantity	Unit price	Type of room	Module code
1	Laptop and its accessories	CPU: Up to 11th Generation Intel Core i9-11980HK Graphics: Up to NVIDIA GeForce RTX 3060 6GB GDDR6 RAM: Up to 64GB DDR4-3200MHz Screen: 17.0" FHD+ (1920 x 1200) Infinity Edge Non-Touch Anti-Glare 500-Nit – 17.0" UHD+ (3840 x 2400) Infinity Edge Touch Anti-Reflective 500-Nit Storage: Up to 4TB M.2 PCIe NVMe	pce	30	700,00	Computer lab	PWODM401 PWOSC401 PWOSW401 PWOTA401 PWOC401 PWOST401 PWONB401 PWOCM401 PWOCOT401 PWODT401

2	Desktop & its accessories	• Model No. K-21.504 • Memory Type: DDR3 • Use: Home/Commercial/Game • CPU Frequency: 2.5-3.0GHz • Keywords: All in One PC • Colour: Black • Interface Type: HDMI, VGA, USB • Display Ratio: 16:9 • Processor Series: Intel Core I7 • Memory: >4G • Hard Disk: SSD 500 GB • Display Resolution: 1920X1080 Power: 100-240V AC 50/60Hz • Output: 12V DC 6A 60W • Dimension: 60*15*45 • Trademark: Kuai	pce	3	395,373	Office room	PWODM401 PWOSC401 PWOSW401 PWOTA401 PWOC401 PWOST401 PWONB401 PWOCM401 PWOCOT401 PWODT401
3	Printer	Advanced software enhances computer control of LP-72 and LP-74 standard and high performance rotational viscometers for improved analysis and reporting of data	Pce	1	300000	Classroom Workshop	PWODM401 PWOSC401 PWOSW401 PWOTA401 PWOC401 PWOST401 PWONB401 PWOCM401 PWOCOT401

							PWODT401
4	Office table	• Usage: office room/ • Material: MDF • Color: woody • Style: Modern • Folded: Unfolded • Size: 1200W*600d*750hmm	pce	4	600,000	Office room	PWODM401 PWOSC401 PWOSW401 PWOTA401 PW OCC401 PWOST401 PWONB401 PWOCM401 PW OCT401 PWOCOT401 PWODT401
5	Chair	• Model no. HY-128B • Rotary • Material: Genuine leather • Modern style • Dimension: 78*32*58 cm	pce	4	95,900	Office room	PWODM401 PWOSC401 PWOSW401 PWOTA401 PW OCC401 PWOST401 PWONB401 PWOCM401 PW OCT401 PWOCOT401 PWODT401

6	Documents Shelf cupboard	• Mode no. SZ-FC017 • Condition: New • Wood style: woody • Material: wood • Door: 2 • Length and width: (1.8*4)m	pce	5	418,250	Office room and Store	
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4.2: Office Tools

No	Tools	Specification	Unit	Quantity	UNIT PRICE (Rwf)	Type of room	Module code
1	Set squares	• Components: a ruler , a half circle protractor, right triangles square (90-45-45 degree angles, or 30-60-90 degree angles), all with bevelled outer edges . • Material: Transparent plastic (or formerly of polished wood)	pce	5	6000	Office room	PWODM401 PWOSC401 PWOSW401 PWOTA401 PWOCC401 PWOST401 PWONB401 PWOCM401 PWOCT401 PWOCOT401 PWODT401

2	French curves	• Blade Material: Plastic • Item Weight: 240 Grams • Blade Shape: Curved • Operation Mode: Manual	pce	5	2000	Office Room	PWODM401 PWOSC401 PWOSW401 PWOTA401 PW OCC401 PWOST401 PWONB401 PWOCM401 PW OCT401 PWOCOT401 PWODT401
3	Protractor	• Material: clear plastic • Shape: simple half-discs or full circles • Type: Metric and Imperial Graduation • Color: Clear white, Blue, Red, Green, etc.	pce	5	2000	Office Room	PWODM401 PWOSC401 PWOSW401 PWOTA401 PW OCC401 PWOST401 PWONB401 PWOCM401 PW OCT401 PWOCOT401 PWODT401

4	Ruler	• Material: Clear plastic • Type: Metric and Imperial Graduation; • Length: 500mm, width of 50 mm and thickness of 3mm with beveled edges • Color :Clear white, Blue, Red, Green, etc.	pce	10	1500	Office Room	PWODM401 PWOSC401 PWOSW401 PWOTA401 PW OCC401 PWOST401 PWONB401 PWOCM401 PW OCT401 PWOCOT401 PWODT401
5	Ink-pen	• Size: 138mm • Weight: 30g • Material: Metal • Writing Point: 0.5mm	pce	15	1000	Office Room	PWODM401 PWOSC401 PWOSW401 PWOTA401 PW OCC401 PWOST401 PWONB401 PWOCM401 PW OCT401 PWOCOT401 PWODT401

6	Pencil sharpener	• Weight: 150-200 gm. • Color :Yellow, Blue, Red, Green, etc. • Material: Plastic • Number Of Holes: 2 • Packaging Type: Box. • Usage/Application: School.	pce	10	500	Office Room	PWODM401 PWOSC401 PWOSW401 PWOTA401 PW OCC401 PWOST401 PWONB401 PWOCM401 PW OCT401 PWOCOT401 PWODT401
7	Paper clips	• 25mm, small Size, • 33mm, medium Size, • 50mm, Big sizes	pce	15	5000	Office Room	PWODM401 PWOSC401 PWOSW401 PWOTA401 PW OCC401 PWOST401 PWONB401 PWOCM401 PW OCT401 PWOCOT401 PWODT401

4. 3. Didactic materials

No	Name and description	Specification	Unit	Quantity	UNIT PRICE (Rwf)	Type of room	Module code
1	Cement	CIMERWA:42.5 CIMERWA:32.5 CIMERWA:22.5	Kg	50	400	Workshop	PWODM401 PWOSW401 PWOC401 PWONB401 PWOCM401 PWOCOT401 PWOCOT401
2	Stones	Size: Cobbles, ranging in size from 64 mm to 256 mm, are a size larger than coarse gravel	m3	5	15000	Workshop	PWODM401 PWOSW401 PWOC401 PWONB401 PWOCM401 PWOCOT401 PWOCOT401
3	Fine aggregate	Effective D10 :0.83mm D30:1.1mm Mean size D50:1.4mm D60:1.5mm	m3	5	12000	Workshop	PWODM401 PWOC401 PWONB401 PWOCM401 PWOCOT401 PWOTA401

4	Coarse Aggregate	Size: 9.5mm and 37.5mm in diameter. Typically, the most common size of aggregate used in construction is 20mm.	m3	5	15000	Workshop	PWODM401 PWOC401 PWONB401 PWOCM401 PWOCOT401 PWOTA401
6	Steel bar	Material: Stainless steel Colour: Silver or Grey Shape: Round, Square, and Flat bars. Size: 8mm, 10mm, 12mm, 16mm, 20mm, 25mm, 32mm, 36mm (Diameter)	Quintel	1	12000	Workshop	PWOSW401

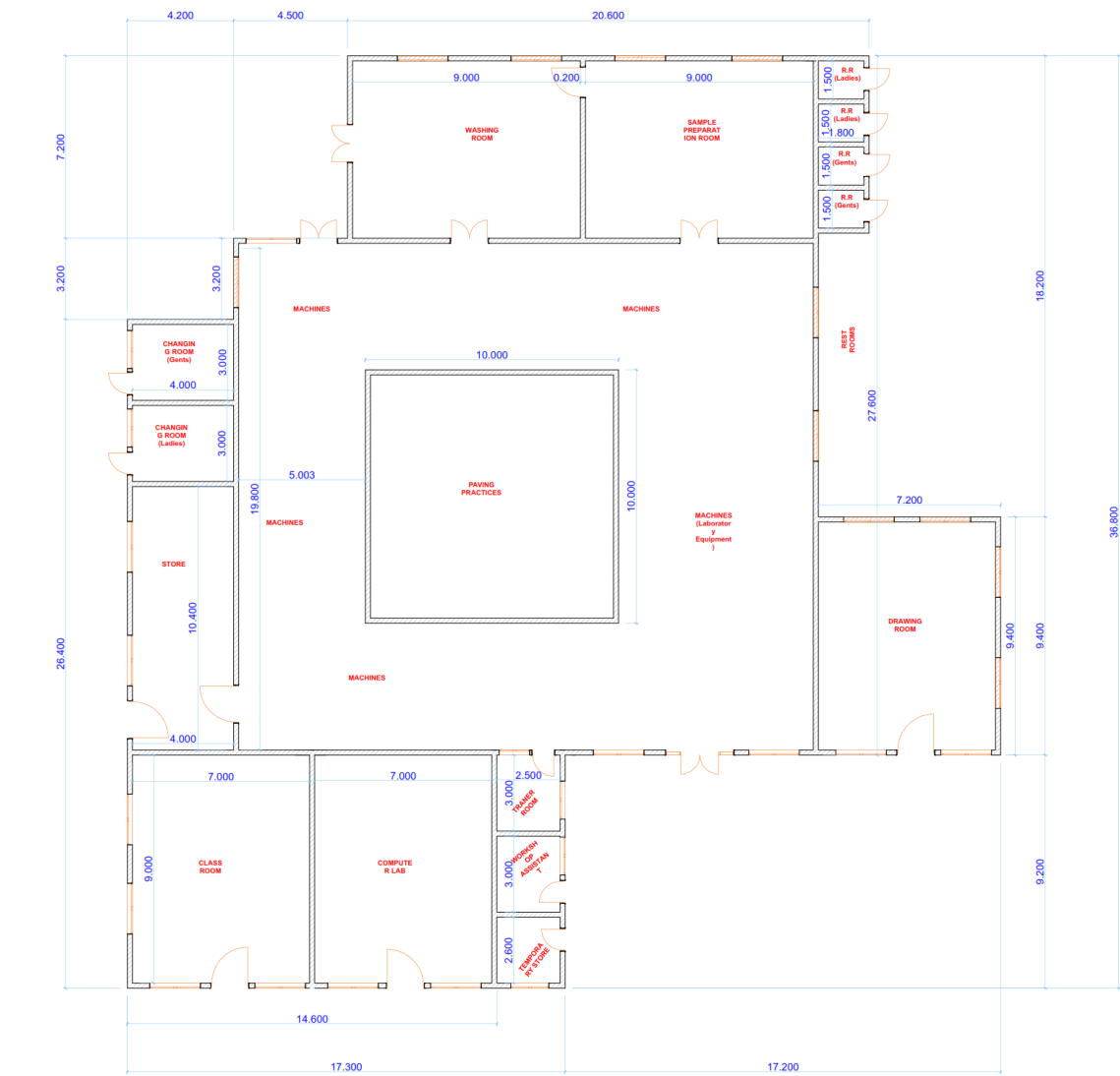
5. Audio-visual materials

No	Name and description	Specification	Unit	Quantity	UNIT PRICE (Rwf)	Type of room	Module code
1	Projector	• Brightness 3,600 ANSI Lumens • Resolution 800x600 • Aspect Ratio 4:3 (SVGA) • Contrast 20,000:1 (full on/off) • Display Type DLP x 1 • Color Processing 10-bit • Video Modes 720p, 1080i, 1080p/60, 1080p/24, 1080p/50, 576i, 576p, 480p, 480i • Data Modes MAX 1920x1200 • Lamp Life 4,000 hours / 10,000 hours (Eco) • Lamp Model MC. JPV11.001 • Digital Zoom Yes • Power 240 Watts 100V - 240V • Size 11 cm x 31 cm x 24 cm	Pce	1	700,000	Office room	PWODM401 PWOSC401 PWOSW401 PWOTA401 PWOCC401 PWOST401 PWONB401 PWOCM401 PWOCT401 PWOCOT401 PWODT401
2	Projector board screen	• Length: 2m • Height: 1.5m • Colour: white	Pce	1	300,000	Office room	PWODM401 PWOSC401 PWOSW401 PWOTA401 PWOCC401 PWOST401

							PWONB401 PWOCM401 PWOCOT401 PWOCOT401 PWODT401
3	Laptop	• 6200U CPU @ 2.30GHz 2.40 GHz • Installed RAM:8.00 GB (7.89 GB usable) • System type: 64-bit operating system, x64-based processor • RAM: 500 GB	Pce	2	700,000	Office room	PWODM401 PWOSC401 PWOSW401 PWOTA401 PWOCOT401 PWOST401 PWONB401 PWOCM401 PWOCOT401 PWOCOT401 PWODT401

6. Infrastructures

The training for Level 4 Public works will require a workshop comprising classroom, computer lab, stores, toilets, changing rooms, stores and offices.



RTB WORKSHOP L 4 PWO

7. Specifications for workshop openings

ITEM	HEIGHT [m]	WIDTH [m]	SILL [m]	MATERIAL	ADDITIONAL INFO
DOORS					
Big doors	2.40	2.00	0.00	Metallic	With glass and grills for external doors only
Small doors	2.10	0.90	0.00	Metallic	With glass and grills for external doors only
Toilet doors	2.00	0.80	0.00	Metallic	With louvers on top
WINDOWS					
Big windows	2.00	2.00	0.4	Metallic	With glass and grills
Small windows	1.50	1.50	0.90	Metallic	With glass and grills
Toilet windows	1.00	1.00	1.40	Metallic	With glass, Grills and Louvers on top