

Republic of the Philippines
AKLAN STATE UNIVERSITY
Bids and Awards Committee
Banga, Aklan

SUPPLEMENTAL / BID BULLETIN NO. 2019-12

Procurement of Technical & Scientific Equipment of ASU-CFMS and ASU-CHARRM

This BID BULLETIN No. 2019-12 is issued to amend and adopt the revisions in Checklist of Eligibility Requirements; Section I. Invitation to Bid; Section VI. Schedules of Requirements; and Section VII. Technical Specifications for your information and guidance in connection with the above-mentioned project and the same shall be taken into consideration in the preparation of your bids.

Item No.	Reference	FROM	TO
(viii)	Checklist of Eligibility Requirements - Financial Documents	Financial Bid Form	Duly Signed Financial Bid Form
1	Invitation to bid	<p>1. The Aklan State University through the General Appropriation Act for F.Y. 2020 intends to apply the sum of Thirty Million Four Hundred Thousand Pesos (₱30,400,000.00) being the Approved Budget for the Contract (ABC) to payments under the contract for each lot.</p> <p>a. Lot 1 - Scientific/ Technical Equipment and Facilities for Fabrication - Two Million Pesos (₱2,000,000.00)</p> <p>b. Lot 2 - Scientific/Technical Equipment (for use in existing indoor laboratories) - One Million Nine Hundred Thousand Pesos (₱1,900,000.00)</p> <p>c. Lot 3 - Refrigeration and Airconditioning System - One Million Two Hundred Sixty Thousand Pesos (₱1,260,000.00)</p> <p>d. Lot 4 - Laboratory Equipment - Sixteen Million Four Hundred Sixty Thousand Pesos (₱16,460,000.00)</p> <p>e. Lot 5 - Office Appliance/ Equipment - One Million One Hundred</p>	<p>1. The Aklan State University through the General Appropriation Act for F.Y. 2020 intends to apply the sum of Thirty Million Four Hundred Thousand Pesos (₱30,400,000.00) being the Approved Budget for the Contract (ABC) to payments under the contract for each lot.</p> <p>a. Lot 1 - Scientific/ Technical Equipment and Facilities for Fabrication - Two Million Pesos (₱2,000,000.00)</p> <p>b. Lot 2 - Scientific/Technical Equipment (for use in existing indoor laboratories) - One Million Nine Hundred Thousand Pesos (₱1,900,000.00)</p> <p>c. Lot 3 - Refrigeration and Airconditioning System - One Million Two Hundred Sixty Thousand Pesos (₱1,260,000.00)</p> <p>d. Lot 4 - Laboratory Equipment - Forteen Million One Hundred Thirty Five Thousand Pesos (₱14,135,000.00)</p> <p>e. Lot 5 - Office Appliance/ Equipment - One Million One Hundred Thousand Pesos</p>

		<p>Thousand Pesos (₱1,100,000.00)</p> <p>f. Lot 6 - Computer Speech Laboratory Equipment - Seven Million Six Hundred Eighty Thousand Pesos (₱7,680,000.00)</p>	<p>(₱1,100,000.00)</p> <p>f. Lot 6 - Computer Speech Laboratory Equipment - Seven Million Six Hundred Eighty Thousand Pesos (₱7,680,000.00)</p> <p>g. Lot 7 - Fish Processing and Packaging Equipment - Two Million Three Hundred Twenty Five Thousand Pesos (₱2,325,000.00)</p>
2	Invitation to bid	<p>The Aklan State University now invites bids for the Procurement of Technical and Scientific Equipment of ASU-CFMS and ASU-CHARRM. Delivery of the Goods is required Thirty (30) days. Bidders should have completed, within two years from the date of submission and receipt of bids, a contract similar to the Project. The description of an eligible bidder is contained in the Bidding Documents, particularly, in Section II. Instructions to Bidders.</p>	<p>The Aklan State University now invites bids for the Procurement of Technical and Scientific Equipment of ASU-CFMS and ASU-CHARRM. Delivery of the Goods is required Sixty (60) days. Bidders should have completed, within two years from the date of submission and receipt of bids, a contract similar to the Project. The description of an eligible bidder is contained in the Bidding Documents, particularly, in Section II. Instructions to Bidders.</p>
5	Invitation to bid	<p>A complete set of Bidding Documents may be acquired by interested Bidders on November 6, 2019 from the address above and upon payment of a non-refundable fee for the Bidding Documents, pursuant to the latest Guidelines issued by the GPPB, in the amount of :</p> <p>Lot Amount</p> <p>Lot 1 - Scientific/ Technical Equipment and Facilities for Fabrication ₱2,000.00</p> <p>Lot 2 - Scientific/Technical Equipment (for use in existing indoor laboratories) ₱2,000.00</p> <p>Lot 3 - Refrigeration and Airconditioning System ₱1,000.00</p> <p>Lot 4 - Laboratory Equipment ₱16,000.00</p>	<p>A complete set of Bidding Documents may be acquired by interested Bidders on November 6, 2019 from the address above and upon payment of a non-refundable fee for the Bidding Documents, pursuant to the latest Guidelines issued by the GPPB, in the amount of :</p> <p>Lot Amount</p> <p>Lot 1 - Scientific/ Technical Equipment and Facilities for Fabrication ₱2,000.00</p> <p>Lot 2 - Scientific/Technical Equipment (for use in existing indoor laboratories) ₱2,000.00</p> <p>Lot 3 - Refrigeration and Airconditioning System ₱1,000.00</p> <p>Lot 4 - Laboratory Equipment ₱14,000.00</p> <p>Lot 5 - Office Appliance/ Equipment ₱1,000.00</p>

		<p>Lot 5 - Office Appliance/ Equipment ₱1,000.00</p> <p>Lot 6 - Computer Speech Laboratory Equipment ₱8,000.00</p> <p>It may also be downloaded free of charge from the website of the Philippine Government Electronic Procurement System (PhilGEPS) and the website of the Procuring Entity, provided that Bidders shall pay the applicable fee for the Bidding Documents not later than the submission of their bids.</p>	<p>Lot 6 - Computer Speech Laboratory Equipment ₱8,000.00</p> <p>Lot 7 - Fish Processing and Packaging Equipment ₱2,000.00</p> <p>It may also be downloaded free of charge from the website of the Philippine Government Electronic Procurement System (PhilGEPS) and the website of the Procuring Entity, provided that Bidders shall pay the applicable fee for the Bidding Documents not later than the submission of their bids.</p>
2	Bid Data Sheet	<p>The Funding Source is: The Government of the Philippines (GOP) through General Appropriation Act for F.Y. 2020 in the amount of Thirty Million Four Hundred Thousand Pesos (₱2,094,000.00).</p> <p>a. Lot 1 - Scientific/ Technical Equipment and Facilities for Fabrication - Two Million Pesos (₱2,000,000.00)</p> <p>b. Lot 2 - Scientific/Technical Equipment (for use in existing indoor laboratories) - One Million Nine Hundred Thousand Pesos (₱1,900,000.00)</p> <p>c. Lot 3 - Refrigeration and Airconditioning System - One Million Two Hundred Sixty Thousand Pesos (₱1,260,000.00)</p> <p>d. Lot 4 - Laboratory Equipment - Sixteen Million Four Hundred Sixty Thousand Pesos (₱16,460,000.00)</p> <p>e. Lot 5 - Office Appliance/ Equipment - One Million One Hundred Thousand Pesos (₱1,100,000.00)</p> <p>f. Lot 6 - Computer Speech Laboratory Equipment - Seven Million Six Hundred Eighty Thousand Pesos</p>	<p>The Funding Source is: The Government of the Philippines (GOP) through General Appropriation Act for F.Y. 2020 in the amount of Thirty Million Four Hundred Thousand Pesos (₱2,094,000.00).</p> <p>a. Lot 1 - Scientific/ Technical Equipment and Facilities for Fabrication - Two Million Pesos (₱2,000,000.00)</p> <p>b. Lot 2 - Scientific/Technical Equipment (for use in existing indoor laboratories) - One Million Nine Hundred Thousand Pesos (₱1,900,000.00)</p> <p>c. Lot 3 - Refrigeration and Airconditioning System - One Million Two Hundred Sixty Thousand Pesos (₱1,260,000.00)</p> <p>d. Lot 4 - Laboratory Equipment - Forteen Million One Hundred Thirty Five Thousand Pesos (₱14,135,000.00)</p> <p>e. Lot 5 - Office Appliance/ Equipment - One Million One Hundred Thousand Pesos (₱1,100,000.00)</p> <p>f. Lot 6 - Computer Speech Laboratory Equipment - Seven Million Six Hundred Eighty Thousand Pesos (₱7,680,000.00)</p>

		(₱7,680,000.00) The name of the Project is: Procurement of Technical and Scientific Equipment of ASU-CFMS and ASU-CHARRM	g. Lot 7 - Fish Processing and Packaging Equipment - Two Million Three Hundred Twenty Five Thousand Pesos (₱2,325,000.00) The name of the Project is: Procurement of Technical and Scientific Equipment of ASU-CFMS and ASU-CHARRM
13.2	Bid Data Sheet	The ABC is : a. Lot 1 - Scientific/ Technical Equipment and Facilities for Fabrication - Two Million Pesos (₱2,000,000.00) b. Lot 2 - Scientific/Technical Equipment (for use in existing indoor laboratories) - One Million Nine Hundred Thousand Pesos (₱1,900,000.00) c. Lot 3 - Refrigeration and Airconditioning System - One Million Two Hundred Sixty Thousand Pesos (₱1,260,000.00) d. Lot 4 - Laboratory Equipment - Sixteen Million Four Hundred Sixty Thousand Pesos (₱16,460,000.00) e. Lot 5 - Office Appliance/ Equipment - One Million One Hundred Thousand Pesos (₱1,100,000.00) f. Lot 6 - Computer Speech Laboratory Equipment - Seven Million Six Hundred Eighty Thousand Pesos (₱7,680,000.00)	The ABC is : a. Lot 1 - Scientific/ Technical Equipment and Facilities for Fabrication - Two Million Pesos (₱2,000,000.00) b. Lot 2 - Scientific/Technical Equipment (for use in existing indoor laboratories) - One Million Nine Hundred Thousand Pesos (₱1,900,000.00) c. Lot 3 - Refrigeration and Airconditioning System - One Million Two Hundred Sixty Thousand Pesos (₱1,260,000.00) d. Lot 4 - Laboratory Equipment - Forteen Million One Hundred Thirty Five Thousand Pesos (₱14,135,000.00) e. Lot 5 - Office Appliance/ Equipment - One Million One Hundred Thousand Pesos (₱1,100,000.00) f. Lot 6 - Computer Speech Laboratory Equipment - Seven Million Six Hundred Eighty Thousand Pesos (₱7,680,000.00) g. Lot 7 - Fish Processing and Packaging Equipment - Two Million Three Hundred Twenty Five Thousand Pesos (₱2,325,000.00)
Error! Reference source not found.	Special Conditions of the Contract	The Funding Source is: The Government of the Philippines (GOP) through Special Trust Fund in the amount of Thirty Million Four Hundred Thousand Pesos (₱30,400,000.00).	The Funding Source is: The Government of the Philippines (GOP) through Special Trust Fund in the amount of Thirty Million Four Hundred Thousand Pesos (₱30,400,000.00).

		<p>a. Lot 1 - Scientific/ Technical Equipment and Facilities for Fabrication - Two Million Pesos (₱2,000,000.00)</p> <p>b. Lot 2 - Scientific/Technical Equipment (for use in existing indoor laboratories) - One Million Nine Hundred Thousand Pesos (₱1,900,000.00)</p> <p>c. Lot 3 - Refrigeration and Airconditioning System - One Million Two Hundred Sixty Thousand Pesos (₱1,260,000.00)</p> <p>d. Lot 4 - Laboratory Equipment - Sixteen Million Four Hundred Sixty Thousand Pesos (₱16,460,000.00)</p> <p>e. Lot 5 - Office Appliance/ Equipment - One Million One Hundred Thousand Pesos (₱1,100,000.00)</p> <p>f. Lot 6 - Computer Speech Laboratory Equipment - Seven Million Six Hundred Eighty Thousand Pesos (₱7,680,000.00)</p>	<p>a. Lot 1 - Scientific/ Technical Equipment and Facilities for Fabrication - Two Million Pesos (₱2,000,000.00)</p> <p>b. Lot 2 - Scientific/Technical Equipment (for use in existing indoor laboratories) - One Million Nine Hundred Thousand Pesos (₱1,900,000.00)</p> <p>c. Lot 3 - Refrigeration and Airconditioning System - One Million Two Hundred Sixty Thousand Pesos (₱1,260,000.00)</p> <p>d. Lot 4 - Laboratory Equipment - Forteen Million One Hundred Thirty Five Thousand Pesos (₱14,135,000.00)</p> <p>e. Lot 5 - Office Appliance/ Equipment - One Million One Hundred Thousand Pesos (₱1,100,000.00)</p> <p>f. Lot 6 - Computer Speech Laboratory Equipment - Seven Million Six Hundred Eighty Thousand Pesos (₱7,680,000.00)</p> <p>g. Lot 7 - Fish Processing and Packaging Equipment - Two Million Three Hundred Twenty Five Thousand Pesos (₱2,325,000.00)</p>
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Schedule of Requirements and Technical Specifications		
LOT 3- Refrigeration and Airconditioning System		
Item No.	FROM	TO
1.	Freezer, -80 ⁰ C	Ultra Cold Chest Freezer: -80 °C to -86 °C Capacity: 3 to 4 cubic feet
2.	Freezer Upright -100 to -400 C, 360 Liters capacity - (2 units)	Freezer Upright: at least -40 °C Capacity: 12 to 14 cubic feet - (1 unit)

Schedule of Requirements and Technical Specifications		
LOT 3- Refrigeration and Airconditiong System		
Item No.	FROM	TO
3	Refrigerators (four and 18 degrees Celsius), Refrigerators 4-18 ^o C, 225 Liters Capacity (2 units)	Refrigerator: at least 18 °C Capacity: 7 to 9 cubic feet (1unit)
4	Air-conditioning units (inverter), Aircon – Split Type Inverter 3 Tr. with installation (4 units)	Air-conditioning system: Split Type Inverter, 3 Tr. with installation, and power source connection (1 unit)
LOT 4 - Laboratory Equipment		
Item No.	Item No.	Item No.
1	Vacuum drier, Vacuum drier 1135 x 810 x 1020mm/250 kg, stainless steel (2 units)	Vacuum drier: Capacity: at least 250 L stainless steel Temperature range: 5 0C to 1500C includes: vacuum pump and chiller (1 unit)
2	Cabinet drier / torrykin, 864 x 635 x 610 mm, stainless steel (3 units)	Cabinet drier: Capacity: atleast 850L Temperature range:10 0C to 2000C Temperature and Time Controller: Digital Internal Material: Stainless Steel Shelves supplied: 3, stainless steel Electrical requirement: 230V, 50/60Hz, 3Φ (1 unit)
3	Laboratory oven, 430 Liter Capacity, 15 shelve Level, 1200x600x600mm	Laboratory oven: Capacity: 100 L, 13 wire shelves
4	Dehumidifier, Drying Chamber Dimension: 3160x2070x2200mm, Max Temp. 750C	Dehumidifier: for 100 sq.m. room
5	Kjeldahl digestion unit (Crude protein analysis), Sample Capacity Solid up to 5 g/sample, Liquid 20ml/sample, measuring range 0.1mg N – 200mg N	Crude protein analyzer includes: Kjeldahl distillation unit, Semi-automatic (Automatic NaOH and H2O addition) Minimal water consumption, 0.5 L/min Titanium condenser With containers for reagents and waste, Non-pressurized for maintenance free, Steamregulation(10-100%), Detection Limit: 0.1mg N, Reproducibility <1%, With 250ml test tube, connecting flask, and thong Power supply: 230V / 50-60Hz Kjeldahl digester, 6 position Volume of tube: 250ml Sample capacity: Solid up to 5g/sample Measuring range: 0.1mg N- 200mg N Temperature range: up to 450 °C Material of heating block: Amluminum for maintenance free Power supply: 230V/ 50-60Hz Must be supplied with scrubber and

		pump to remove the fumes
6	Soxhlet extraction unit (Crude lipid analysis), Measuring Range 0.1 – 100%, Temp. Accuracy $\pm 10^{\circ}\text{C}$, Capacity/Batch 6pcs/Batch	Accelerated Shelf-life Analyzer and direct analysis of sample to measure oxidation stability of food, oils, fats. Analysis on the whole sample, without preliminary fat separation: Application: Freshness test, packaging comparison, formula comparison, Shelf-life test, IP during ageing Based on ASTM D942 method Includes software and computer 100ml capacity per chamber, 2 positions, Temperature range: from room temp. to 110°C , Pressure Range: 0 to 8 bar
7	Fibertec (Crude fiber analysis), Automatic crude fiber analyzer, sample size 0.5-3g, measuring range 0.1 – 100%, six sample/batch, 36 – 60 sample/day	Crude fiber analyzer Sample size: 0.5-3g Measuring range 0.1 – 100% Sample Size: six sample/batch Capacity/Day: 36-60
8	Soxtec (Crude fat analysis), Soxtec 0.1-100 % fat in combination with extraction, Capacity/Batch 12 samples simultaneously	Crude and Total Fat Extraction System Measuring Range: 0.1 – 100%, Working Temperature: From 100 to 260°C Sample Quantity: From 0.5 to 15 g Reproducibility $\leq 1\%$ Capacity/Batch: 6pcs/Batch, With 6 pcs extraction cups, 25 pcs extraction thimbles, Solvent Recovery: from 50 to 75% Minimal water consumption 6 placer Hydrolysis unit Temperature range: Ambient to 200°C Temperature Precision: $\pm 0.5^{\circ}\text{C}$
9	Equipment for histamine level determination, Temperature Range: 7°C ~ 400°C above room temperature, (increment 1°C), Program setting: 0.1°C ~ $40^{\circ}\text{C}/\text{min}$ (increment 0.1°C), FID Detection limit: $\leq 3 \times 10^{-12}\text{g/s}$ (C16), FPD Detection limit: $\leq 8 \times 10^{-13}\text{g/s}$ (P) ; $\leq 8 \times 10^{-11}\text{g/s}$ (S) (2 units)	Fluorometer Minimum Detection Limit for Histamine: 0.001 ppm Detection Range: 0-100 ppm With: Histamine Module 10 mm x 10 mm Square Methacrylate Cuvette (3.5 ml capacity) (100 each) Upgradable to measure other parameters such as turbidity, Ammonium, Nitrate, Silicate, and Phosphate (1 unit)
10	Furnace (ash determination), Laboratory Muffle Furnace Max Temp. 12000°C , Work Temp 30 - 11000°C , Chamber Size 100mmx100mmx100mm	Furnace (ash determination), Laboratory Muffle Furnace Max Temp. 12000°C , Work Temp 30 - 11000°C , Capacity: 4L to 5 L
11	Meat grinder, Automatic, Electric, 120 kg/H Capacity (4 units)	Meat grinder, Automatic, Electric, 120 kg/h Capacity (2 units)

Schedule of Requirements and Technical Specifications		
LOT 4- Laboratory Equipment		
Item No.	FROM	TO
12	Electrical mixer, 4.5 Liter Capacity, 275 watt motor, 0.5 Horse Power (4 units)	Electrical mixer, 4.7 Liter borosilicate glass bowl and 3.8 liter stainless steel bowl 12-speed settings (2 units)
13	Heavy duty blender, 2 horse power, 2 Liters capacity (4 units)	Heavy duty blender, 2 horse power Capacity: 2 Liters (2 units)
14	Homogenizer, Homogenizer Stainless Steel, Capacity 500 L	Homogenizer Stainless Steel, Process range 10 to 40,000ml Speed: 10000 to 30000 rpm
15	Grinder, Flaking Mill/Grinder	Deleted and moved to Lot 7- Fish Processing and Packaging Equipment
16	Silent cutter, Stainless Steel, 10-15 kg Capacity	Deleted and moved to Lot 7- Fish Processing and Packaging Equipment
17	Noodle machine, 60-80kg/H Capacity, Stainless Steel	Deleted and moved to Lot 7- Fish Processing and Packaging Equipment
18	Pellet-maker, Capacity: 100-150 kg/H, Shaft Speed 320r/min, final pellet size 2mm-8mm	Deleted and moved to Lot 7- Fish Processing and Packaging Equipment
19	Hammer Mill, Max hardness of the material to grind: 6-7 Mohs, Capacity 50 kg/H, 3-4 interchangeable fixed hammer	Hammer Mill, With adjustable vacuum feed control regulates feed rate of the sample into the metallic grinding chamber. A hardened steel hammer rotates at high speed forcing the sample through a stainless steel sieves 0.5, 0.8, and 2.0mm, Belt drive 1:6, 16,800 rpm Operation: 300 g in 30-50 seconds Capacity: Includes mill feeder
20	Rice/corn meal grinder, Motor: 2.2kw/2800r/min, Productivity 250kg/H, Spindle Speed 4800r/min, Width of Crushing 220 mm, Diameter of rotor: 180 mm	Deleted and moved to Lot 7- Fish Processing and Packaging Equipment
21	Pressure cooker, 38H x 42W x 38D, 30 Liters Capacity	Pressure cooker Capacity: 30 Liters Capacity
22	Steamers, 50-2500 C, Stainless Steel, Automatic temperature control and Built-in safety device, 9L water storage (4 units)	Electric Steamer with Automatic Temperature Controller and water level alarm., ambient up to 1100C, Stainless Steel (2 units)
23	Stoves/gas range, 1 turbo, 1 Large and 2 medium gas burners, Gas thermostat oven (4 units)	Stoves/gas range, 1 turbo, 1 Large and 2 medium gas burners, Gas thermostat oven (3 units)

Schedule of Requirements and Technical Specifications		
LOT 4- Laboratory Equipment		
Item No.	FROM	TO
24	Mechanized packaging machinery system, Belt character: PP belt/PVC belt/PU belt, Machine frame: Fully stainless steel #304/Painted steel, Production capacity: 4-6.5m ³ /H, Outlet height: 3520mm, Infeed length: 351mm, Machine Packed Dimension: 2050mm(L)*1350mm(W)*980mm(H), Voltage: 380V ,3 Phase.50Hz; Power: 1.1KW	Deleted and moved to Lot 7- Fish Processing and Packaging Equipment
25	Bottle sealer, Cap sizes from 22mm to 58mm, (700 x 700)mm, 1250 seals per hour	Deleted and moved to Lot 7- Fish Processing and Packaging Equipment
26	Impulse sealer, Watts: 750 Seal Length: 16" Seal Width: 2mm Max Bag Thickness: 6 Mil	Deleted and moved to Lot 7- Fish Processing and Packaging Equipment
27	Can sealer, Stainless steel, can diameter 35-130mm, sealing speed 25-30/min	Deleted and moved to Lot 7- Fish Processing and Packaging Equipment
28	Microscope with accessories, Microscope with tablet, Trinocular, Objective Lenses 4x/10x/40x/100x, PP. 5000-Wifi propade (4 units)	Trinocular Microscope with accessories, Objective Lenses: 4x/10x/40x/100x, 4x/10x/40x/200x 4x/10x/40x/400x OIL IOS Objectives With 1 unit USB-2 Camera with CMOS Sensor and tablet for each unit (3 units)
29	Weighing balances 650 g capacity, Resolution 0.001g	Weighing balances 600 to 650g capacity, Resolution 0.001g
30	Electric exhaust hood, Laboratory Bench Type Fume Hood Stainless Steel, Work Tray Stainless steel, Lighting Fluorescent Lamp, exhaust hood 12" Duct (4 units)	Laboratory Bench Type Fume Hood, 1.2m width Lighting LED Lamp, Includes ducting (2 units)
31	Microbiology laboratory equipment for food safety studies, Incubator temp control: RT +5 ~80°C, Temp. Flactuation: ± 0.5°C, Refrigerator Refrigerators (four and 18 degrees Celsius), Refrigerators 4-180 C, 225 Liters Capacity, Autoclave Chamber capacity: 17L, Time range : 0~60 min, Working Range: 140C at 1.5kg/cm ²	Microbiology laboratory equipment for food safety studies: Incubator temp control: RT +5 ~70°C, Capacity: at least 50 liters Refrigerator Refrigerators 4-18 0C, 225 Liters Capacity, Autoclave Chamber capacity: at least 17L, Time range : 0~60 min, Maximum Temperature: at least 1350C at 1.5kg/cm ² with 2 trays
32	Flesh and bone separator, Flesh and bone separator 100-250 kg/h Capacity	Deleted and moved to Lot 7- Fish Processing and Packaging Equipment
33	Food salinometer, Salinometer Range 0-28%, Resolution 0.2%, Accuracy ± 0.2%	Food salinometer, Salinometer Range to 28 g/100 g; 0 to 34 g/100 ml Resolution 0.1%, Accuracy ± 0.2%

34	Water activity meter Range: 0 to 1.000 aw Read Time: 5 minutes (1 unit)	Additional item
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Schedule of Requirements and Technical Specifications		
LOT 5- Office Appliances / Equipment		
Item No.	FROM	TO
1	Desktop Computers, Desktop Computer, Intercore i7-8700T, 16GB DDR4-2400 SDRAM (2X8GB), 256 GB SSD + 1 TB 7200 RPM SATA, Windows 10, Panel LCD 23.8 Inch FHD (1920x1080), NVIDIA Geforce MX 130 2 GB GDDR5, Mouse and Keyboard (2 units)	Desktop Computer: Processor: 12M Cache, up to 4.60 GHz RAM: at least 8GB Storage: 1TB HDD GPU: at least 2GB OS: Windows 10 Home SL 64 Bit Monitor: At least 24" Mouse and keyboard (3 units)
2	Printer with accessories, Multifunction Printer, Print, scan and copy, Printing Resolution 5,760 x 1,440 DPI, Printing Speed 15 pages/min Colour (plain paper 75 g/m ²), 33 pages/min Monochrome (plain paper 75 g/m ²), 69 Seconds per 10 x 15 cm photo (Epson Premium Glossy Photo Paper), Scanning Resolution 600 DPI x 1,200 DPI (Horizontal x Vertical) (2 units)	Printer: Multifunction; print, scan and copy, ink tank system (3 units)
3	Laptop with accessories (AVR/Power supply, Licensed Softwares, Operating Systems: Windows 10 Home (64-bit) GPU: Intel UHD Graphics 620 154 Display: 13.3" Full HD, IPS Storage: HDD/SSD: 512 GB SSD M.2 Slot 1x 2280 PCIe 3.0 x4 NVMe RAM: 16GB DDR4, 2400 MHz	Laptop: Processor: at least 1.8 GHz w/Turbo Boost up to 4.0 GHz RAM: 8GB - 16 GB Storage: 512GB SSD Display: 14.0" to 16" with IPS technology GPU: UHD Graphics OS: Windows 10
4	Portable Public Address system:200 W RMS, 400 W peak power output, Removable 8-channel powered mixer conveniently stows for transport, Two loudspeakers with 10" woofers, 1" HF compression drivers, Integrated storage compartment for cables and other accessories	Portable Public Address system: 200W RMS, 400W peak power output, Removable 8-channel powered mixer conveniently stows for transport, Two loudspeakers with at least 10" woofers, 1" HF compression drivers, Integrated storage compartment
5	Video Camera with Accessories, Record and play back HDV 1080i video; Capture 1.2-megapix;; ClearVid CMOS sensor; 20x optical zoom	Digital Single Lens Reflect Camera Kit Image sensor: approx. 32.5 effective megapixels; APS-C format CMOS sensor Image processor: DIGIC 8 or equivalent Native ISO speed (still shooting): 100 - 25,600 (expandable to 51,200) Native ISO speed (movie shooting): 100 - 12,800 (expandable to 25,600) AF (OVF): at least 45 points all-cross-type

		AF (Live View): Dual Pixel CMOS AF or equivalent
6	CCTV System, Warm Light Full Color Night Vision, Advanced H.265X Technology	CCTV System: 8 camera 16 channel HDD: at least 4 TB Monitor: at least 23" connection cables and mouse
8	Label printer, Print Resolutions: 4800 x 1200 dpi, 2400 x 1200 dpi, 600 x 600 dpi, Print width 19 mm (0.75") to 101.6 mm (4") Print Length: 19 mm (0.75") to 609.6 mm (24") (2 units)	Label printer: Print Resolutions; 4800 x 1200 dpi, 2400 x 1200 dpi, 600 x 600 dpi, Print width; 0.75" to 4" Print Length; 0.75" to 24" (1 unit)
9	Barcode reader, Scan Lines: 20, Motor Speed: 6,000 RPM, Depth-of-field: 8.0" / 23.3 cm, Read Height: 6.0" / 15.2 cm (2 units)	Barcode reader: Scan Lines; at least 20 Motor Speed: 6,000 to 6, 200 RPM Depth-of-field: 8.0" Read Height: 6.0" (1 unit)

Schedule of Requirements and Technical Specifications			
Lot 7 - Fish Processing and Packaging Equipment			
Item No.	Description	Quantity	Unit
1	Silent cutter, Stainless Steel Production Capacity: 10-15 kg Chopped pot speed: 9r/min Chopper speed: 1480/2960 r/min Include: cutting blade/knife	2	unit
2	Noodle Machine, stainless steel Capacity: 50-150kg/hr Motor speed: 1440r/min Roller speed: 50-60r/min	2	unit
3	Pellet Maker Capacity: 60-100kg/hr Power: 10HP Moisture: 8-10% Final pellet size: 2mm-8mm	3	units
4	Mechanized packaging machinery system, Belt character: PP belt/PVC belt/PU belt, Machine frame: Fully stainless steel #304/Painted steel, Production capacity: 4-6.5m ³ /H, Outlet height: 3520mm, Infeed length: 351mm, Machine Packed Dimension: 2050mm(L)*1350mm(W)*980mm(H), Voltage: 380V ,3 Phase.50Hz; Power: 1.1KW	2	units
5	Bottle sealer Cap sizes from 22mm to 58mm, (700 x 700)mm, Productivity: 1250 seals per hour	3	units
6	Impulse sealer Watts: 750 Seal Length: 16" Seal Width: 2mm Max Bag Thickness: 6 Mil	4	units
7	Can sealer, Stainless steel Can diameter: 35-130mm Sealing speed: 25-30/min	2	units
8	Flesh and Bone Separator Power Capacity: 180-200 kg/hr Power: 1.5 KW	2	units

This bid bulletin shall form an integral part of the Bid Documents.

For the information and guidance of all concerned.

(Sgd.) MICHAEL T. IBISATE, PhD
Chairman, Bids and Awards Committee