

Section VII. Technical Specifications

Notes for Preparing the Technical Specifications

A set of precise and clear specifications is a prerequisite for Bidders to respond realistically and competitively to the requirements of the Procuring Entity without qualifying their Bids. In the context of Competitive Bidding, the specifications (e.g. production/delivery schedule, manpower requirements, and after-sales service/parts, descriptions of the lots or items) must be prepared to permit the widest possible competition and, at the same time, present a clear statement of the required standards of workmanship, materials, and performance of the goods and services to be procured. Only if this is done will the objectives of transparency, equity, efficiency, fairness, and economy in procurement be realized, responsiveness of bids be ensured, and the subsequent task of bid evaluation and post-qualification facilitated. The specifications should require that all items, materials and accessories to be included or incorporated in the goods be new, unused, and of the most recent or current models, and that they include or incorporate all recent improvements in design and materials unless otherwise provided in the Contract.

Samples of specifications from previous similar procurements are useful in this respect. The use of metric units is encouraged. Depending on the complexity of the goods and the repetitiveness of the type of procurement, it may be advantageous to standardize the General Technical Specifications and incorporate them in a separate subsection. The General Technical Specifications should cover all classes of workmanship, materials, and equipment commonly involved in manufacturing similar goods. Deletions or addenda should then adapt the General Technical Specifications to the particular procurement.

Care must be taken in drafting specifications to ensure that they are not restrictive. In the specification of standards for equipment, materials, and workmanship, recognized Philippine and international standards should be used as much as possible. Where other particular standards are used, whether national standards or other standards, the specifications should state that equipment, materials, and workmanship that meet other authoritative standards, and which ensure at least a substantially equal quality than the standards mentioned, will also be acceptable. The following clause may be inserted in the Special Conditions of Contract or the Technical Specifications.

Sample Clause: Equivalency of Standards and Codes

Wherever reference is made in the Technical Specifications to specific standards and codes to be met by the goods and materials to be furnished or tested, the provisions of the latest edition or revision of the relevant standards and codes shall apply, unless otherwise expressly stated in the Contract. Where such standards and codes are national or relate to a particular country or region, other authoritative standards that ensure substantial equivalence to the standards and codes specified will be acceptable.

Reference to brand name and catalogue number should be avoided as far as possible; where unavoidable they should always be followed by the words "*or at least equivalent.*" References to brand names cannot be used when the funding source is the GOP.

Where appropriate, drawings, including site plans as required, may be furnished by the Procuring Entity with the Bidding Documents. Similarly, the Supplier may be requested to provide drawings or samples either with its Bid or for prior review by the Procuring Entity during contract execution.

Bidders are also required, as part of the technical specifications, to complete their statement of compliance demonstrating how the items comply with the specification.

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Technical Specifications

Item	Specification	Statement of Compliance
		<p><i>[Bidders must state here either "Comply" or "Not Comply" against each of the individual parameters of each Specification stating the corresponding performance parameter of the equipment offered. Statements of "Comply" or "Not Comply" must be supported by evidence in a Bidders Bid and cross-referenced to that evidence. Evidence shall be in the form of manufacturer's un-amended sales literature, unconditional statements of specification and compliance issued by the manufacturer, samples, independent test data etc., as appropriate. A statement that is not supported by evidence or is subsequently found to be contradicted by the evidence presented will render the Bid under evaluation liable for rejection. A statement either in the Bidder's statement of compliance or the supporting evidence that is found to be false either during Bid evaluation, post-qualification or the execution of the Contract may be regarded as fraudulent and render the Bidder or supplier liable for prosecution subject to the applicable laws and issuances.]</i></p>
<p>LOT 1 - Laboratory Equipment (P2,093,260.00)</p>		
1	<p>Auxiliary Unit and Cut-away assemblies: 4.1. Set of assorted valves comprised of the following: (Material :Cast Iron) * Butterfly valve 6 inch Dia. Pneumatic Actuator * Gate Valve 4 inch Dia. Flange Type * Flush Valve 4 inch Dia. * Angle Valve 4 inch Dia. * Check Valve 2 inch Dia. Flange type * Foot Valve 1.5 inch Dia. * Globe Valve 4 inch Dia.</p>	

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2	<p>Centrifugal Pump 220V/240V380/415V 3phase; 50hz/60hz Cast iron Stainless steel: 160KW(213HP) 500mm(20inch) 1.6MPa(16bar) Flange type: Centrifugal pump</p>	
5	<p>Drawing laboratory Instruments set comprised of the following :</p> <ol style="list-style-type: none"> 1. Ship curves ; Set of 6 ship curves fabricated from clear acrylic with smooth edges. Sizes include 6 3/4" (114), 12 1/2" (60), 13" (50), 15 1/2" (59), 24" (42), 24" (43). (Pattern number in parenthesis). Plastic thickness is 0.08". 2. T-square 24"; T-Square Elevated acrylic edges. Black fixed wood head Ideal for technical drawing 24" T square 3. Technical pen set; Set containing 7 refillable technical pens, line width 0.2, 0.3, 0.4, 0.5, 0.6, 0.8, 1.0, compass adapter and drawing ink bottle 4. Mechanical pencil set; Set of 3 color-coded mechanical pencils 0.3mm, 0.5mm and 0.7mm leads. Excellent for writing and drawing. Blue body with black non-slip rubber grip. Pocket-friendly with retractable metal lead-sleeve. 5. Triangle Set; Set of 2 triangles. 1- 60°/30° - 12" 1-45°/45° - 12" 6. Triangular Ruler; Three sides with six different scales feature die-engraved graduations Size: 1"W x 12"L Three sides with six different scales. Open divided: 3/32, 1/8, 3/16, 1/4, 3/8, 1/2, 3/4, 1, 1 1/2, 3" = 1 foot. White plastic. 12-inch long Scale 7. Straight edge; 12" Non-Skid Flexible Stainless-Steel Rule Graduated 16th & 32nd Per Inch & Metric 8. Flexible curves; Flexible curve 32" with metric graduations in mm and cm are color coded red. The curve has inking edges for pen and marker use and flat edges on both sides for pencil drawing. 9. Lettering stencils; 1/4", 3/8", 3/4", and 1 1/8" Lettering Stencil Templates 10. Protractor; Clear acrylic plastic. Graduated in 1/2" degree increments. 0.09" thick with beveled edges 6", 360 degrees. 11. Drawing compass; Compass, universal adapter spare parts box in case with hinged lid. Interchangeable lead part with shank ø 4 mm. Maximum circle ø approximately 350 mm. Hinged lead and needle legs. Interchangeable needle) 	

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8	<p>Measuring Devices Set comprised of the following: 1. Digital Tachometer 2-in-1 Dual-purpose Contact Non-contact Speed Detector Meter Auto Ranging 2.5-99999RPM Type: Digital tachometer Model: DT2236C Shell Material: ABS Measure in ft/min and m/min Measurement accuracy: 0.01RPM Testing Range: 2.5-99999RPM Size: 200x70x30 (mm) Power Supply : 9V battery (NOT Included) Packing list: 1 x host, 1 x manual 2. 360 Degree Universal Bevel Protractor Angle Measuring Finder Goniometer Angular Ruler with Magnifier Specification: Measuring range: 0-360 degree Colour: Silver Material: metal Size:About 150mm Package Contents: 1 x Angle Ruler 3. Combination Square Stainless Steel Spirit Level Aluminum Measuring Tools Length: 30 cm Use as an outside try square, depth gauge, scribe, Precise 90 and 45 degree angles. Inside try square and mitre square Stainless steel finished ruler with Clearly and accurately calibration Markings for centimeters and millimeters Fully adjustable leveled square head Description Material: Stainless Steel + Aluminum 4. Digital Vernier Height Gauge With Single Beam Electronic Height Gauge Measuring Range(mm): 0-150mm/0-300mm(option) Resolution(mm): 0.01Accuracy(mm): +0.04/-0.04 battery:3V CR2032)</p>	
9	<p>Mold Lofting Room Equipment set comprised of the following: 1. Carpentry Tools Set; Hand tools 168-Piece General Hand Tools Kit - Ideal for home and garage repairs. Heat treated and chrome plated to resist corrosion. Securely housed in a handy blow molded case. All tools meet or exceed ANSI critical standards. 2. Power tools; Variable 2 speed 1/2 inches Hammer Driver Drill (0 600 & 0 1, 900 RPM) with Makita built 4 pole motor delivers 480 inches pounds of max torque; weighs only 3.4 pounds with battery Variable speed impact driver (0 2, 900 RPM & 0 3, 500 IPM) provides 1, 460 inches pounds Of max torque; Weighs only 2.8 pounds with battery 3. Variable speed Reciprocating saw; delivers 0 2, 800 strokes per minute with a 1 1/4 inches Stroke; Weighs 8.1 pounds with battery 4. 6 1/2 inches Circular saw delivers 3, 700 RPM for faster cutting and ripping through wood; Weighs only 7.3 pounds.</p>	

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	With battery; Tool count: 5 5. 4 Position flashlight with Xenon bulb runs up to 7.5 hours per charge with a 5.0 Ah battery. Battery charge time: 30 min)	
10	Personal Protective Equipment Set * Hard Hat (white) * Reflective Vest * Abrasion Resistant Oil Repellent Safety gloves * Earplugs Reusable Silicone Type with Cord * Reusable Half Face Mask Respirator * Fall Protection Kit Full Body Harnesses with Belt Fall Absorber Strap Fall Protection Equipment Accessories for Working Roofing Climbing * 40W Chip XHP50 LED Headlight 40000Lum Led Headlamps Zoom Head Lamp Flashlight Torch Lantern	
13	Propeller (Bronze(CU1,2,3,4) 4-bladed FPP Marine Propeller 1500mm Dia.)	
14	Rudder (Material : Steel PL 25mm thck 4' x 8')	
15	Scuba Diving Gear Set comprised of the following: 1. Men's wetsuit Diving suit snorkeling Name: 1.5MM Men Siamese diving suit To apply a gender: Male Pattern: pattern Applicable scene: swimming and wading Age: Adult Color: Black Gray Function: Warm Fabric: SCR Neoprene + nylon For the season: spring, fall, winter, summer Size: L 2. Oxygen Cylinder Scuba Diving Air Tank Underwater Breathing Equipment SET Bag Name: Scuba Diving Oxygen Cylinder Equipment Model: E74590 3. Oxygen Cylinder Material: Aviation Aluminum Oxygen Cylinder Capacity: 1L Oxygen Cylinder Color: Black/Yellow/Green/Blue Max Inflatable Pressure: 3000psi/200bar3/20MPa Underwater Breathing Time: about 15-20min Package Include: 1 x 1L Oxygen Cylinder 1 x Manual Pump 1 x Breathing Valve 1 x Air Adapter 1 x Diving Glasses 1 x Wrench 1 x Installation Kit 1 x Oxygen Cylinder Bag 1 x Storage Bag 4. Dash Long Blade Rubber Diving Fin (Black) Size: M Open toe design for quick draining Balanced blade soft comfortable foot pocket)	
16	Milling Machine Table Travel (X) (mm): 600, Table Travel (Y) (mm): 230, Table Travel (Z) (mm): 370 Numbers of Axes: 3, Machining Capacity: Light Duty, Spindle Taper:	

*Technical Specifications - Proposed Procurement for the Supply and Delivery of Instructional Facilities and Equipment for
BSNAME for USTP-Jasaan Campus*

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	ISO40 Range of Spindle Speed (r.p.m.): 115-1750 r.p.m, Table Travel (mm) 500x240, Type: VERTICAL, Spindle Motor Power (kW): 2.2, Voltage: 220v/380v, Dimension (L*W*H): 1340*1200*2360mm, Certified: CE ISO Weight (KG): 950	
17	Welding Machine TIG With Digital Display, Input Voltage: 220V, 1, Phase, Duty Cycle: 60%, Frequency: 50/60 Hz., Rated Input: 3.9 kva, No Load Voltage: 56V, Rated Output Voltage: 17.2V, Efficiency: 85%, Output Current Range: 20-200A, Insulation Class: B, Net Weight: 8.5kg, Processes: Stick & TIG, Materials: Aluminum, steel, stainless & chrome molybdenum	
LOT 2 – ICT Equipment (P2,074,400.00)		
3	Branded Desktop Computer (intel core i7 11th Gen processor, 16GB RAM, NVIDIA GeForce GT1080 8GB Graphics Card, 512 GB SSD, 2TB HDD Storage with Licensed Microsoft Pro OS and office with 24" inches LED Monitor, Keyboard, AVR and Mouse	
6	Branded Large Format Printer (Plotter) Technical specifications - Standard sheets Auto sheet feeder: A4, A3 24-in manual feed: A4, A3, A2, A1 36-in manual feed: A4, A3, A2, A1, A0 - Sheet size Auto sheet feeder: 210 x 279 to 330 x 482 mm 24-in manual feed: 210 x 279 to 610 x 1897 mm 36-in manual feed: 210 x 279 to 914 x 1897 mm - Print speed 30 sec/page on A1, 76 A1 prints per hour - Print resolution Up to 2400 x 1200 optimized dpi - Technology HP Thermal Inkjet Margins Roll: 5 x 5 x 5 x 5 mm - Sheet: 5 x 5 x 5 x 5 mm - Ink types Dye-based (C, M, Y); pigment-based (K) (1000Base-T), Hi-Speed USB 2.0, Wi-Fi 802.11a - Print languages (standard) HP-GL/2, HP-RTL, CALS G4, JPEG, URF - Drivers Raster driver for Windows and macOS - Dimensions (w x d x h) Printer 24-in: 1013 x 605 x 932 mm 36-in: 1317 x 605 x 932 mm - Shipping 24-in: 1155 x 575 x 475 mm 36-in: 1470 x 575 x 590 mm - Weight Printer 24-in: 28.9 kg, 36-in: 34.7 kg - Shipping 24-in: 37.4 kg, 36-in: 55.3 kg - Warranty One-year limited hardware warranty), bundled with additional 1 set of ink and 1 ream of A1 size paper	
7	Branded Desktop Computer (intel core i7 11th Gen processor, 16GB RAM, NVIDIA GeForce GT1080 8GB Graphics Card, 512 GB SSD, 1TB	

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	HDD Storage with Licensed Microsoft Pro OS and office , With 24 inches LED Monitor, Keyboard, AVR and Mouse)	
11	<p>Branded Multi-Purpose Printer (Compact integrated tank design High yield ink bottles Spill-free, error-free refilling Print, scan, copy, fax with ADF Wi-Fi, Wi-Fi Direct Connect Borderless printing up to 4R Printer Type: Print, Scan, Copy, Fax with ADF Print Speed: Photo Default - 10 x 15 cm / 4 x 6 ": Approx. 69 sec per photo (Border) / 90 sec per photo (Borderless) *1 Draft, A4 (Black / Colour): Up to 33 ppm / 15 ppm *1 ISO 24734, A4 Simplex (Black / Colour): Up to 10 ipm / 5.0 ipm *1 First Page Out Time from Ready Mode (Black / Colour): Approx. 10 sec / 16 sec *1 Copy Speed: Copy Quality: Draft / Standard / Best Quality Maximum Copies from Standalone: 99 copies Reduction/Enlargement: 25 – 400 %, Auto Fit Function Maximum Copy Resolution: 600 x 600 dpi Maximum Copy Size: Legal ISO 29183, A4, Simplex (Black / Colour): Up to 7.7 ipm /), Bundled with 1 set of ink</p>	
12	<p>Branded Projector 4,000 Lumens (Projection System: DLP Resolution Support: VGA(640 x 480) to WUXGA_RB(1920 x 1200) Power Supply : AC 100 to 240 V, 50/60 Hz Standby Power Consumption: <0.5W Horizontal Frequency: 15k-102KHz Net Weight: 2.5kg Speaker: 2W x 1 Dimensions(LxWxH): 27cm x 35cm x 17cm)</p>	
***** Nothing Follows*****		

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