

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.

Technical Specifications

| Item No. | Specification | Statement of Compliance |
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| | | <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> |
| 1 | <p>ADULT RESUSCITATION KIT</p> <ul style="list-style-type: none"> - 1 Laryngoscope - 2 Adult ET Tubes Sizes 6.0 - 2 Adult ET Tubes Sizes 6.5 - 2 Adult ET Tubes Sizes 7.0 - 2 Adult ET Tubes Sizes 7.5 - 2 Adult ET Tubes Sizes 8.0 - 2 Adult ET Tubes Sizes 8.5 - 1 Guide Wire, Ambu Bag - 1 Face Mask for Ambu bag - 1 Tubing for AMBU bag | |
| | <p>ADVANCE MULTIPURPOSE PATIENT SIMULATOR</p> <ul style="list-style-type: none"> - Designed to simulate lifelike cases across a broad range of clinical areas including pre-hospital, ED, OR, ICU, PACU, med-surg, and more. | |

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| 2 | <p>GENERAL:</p> <ul style="list-style-type: none"> • Tetherless and wireless; fully responsive during transport¹ • Fully operational on internal battery power for up to 6 hours² • Supports common patient positions including Fowler's, supine, and sitting Airway • Programmable airway: tongue edema, laryngospasm, and pharyngeal swelling • Multiple upper airway sounds synchronized with breathing • Right mainstem intubation • Sensors detect depth of intubation • Placement of conventional airway adjuncts • Endotracheal intubation • Retrograde intubation • View vocal cords with Sellick maneuver • Realistic surgical trachea allows tracheostomy or needle cricothyrotomy Breathing • Control rate and depth of respiration and observe chest rise • Select independent lung sounds: upper right, front and back; upper left, front and back; lower right, front and back; lower left, front and back • Chest rise and lung sounds are synchronized with selectable breathing patterns • CO₂ on exhalation (4 levels using replaceable cartridge mounted inside the simulator) • Attach to real mechanical ventilators • Bilateral chest rise and fall • Unilateral chest rise simulates pneumothorax • Anterior and posterior auscultation sites • Bilateral needle decompression at second intercostal • Dynamic airway and lung compliance/resistance . Ten levels of static compliance, 15-50 ml/cm H₂O . Ten levels of airway resistance. Holds PEEP from 5 to 20cm H₂O. Exhales real and measurable CO₂. Change airway and lung settings on the fly . Receive real-time feedback from a real mechanical ventilator. Capable of assisting the ventilator at variable respiratory rate. Compliance and resistance can be varied while connected to the ventilator Cardiac • ECGs are generated in real-time with physiologic variations never repeating textbook patterns • Heart sounds may be auscultated and are synchronized with ECG • CPR sensors; chest compressions are measured and logged • 12-Lead ECG with integrated MI model Speech • Wireless streaming audio | |
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- Create and store vocal responses in any language
- Circulation
- Measure blood pressure by palpation or auscultation
 - Use real BP cuff rather than a "virtual" cuff to measure blood pressure
 - Korotkoff sounds audible between systolic and diastolic pressures
 - Oxygen saturation detected using real monitors rather than a "virtual" value
 - Pulse sites synchronized with BP and heart rate
 - Bilateral IV arms with fill/drain sites
 - SubQ and IM injection sites
 - Intraosseous access at tibia
 - ECG monitoring using real devices
 - Defibrillate, cardiovert, and pace using real devices
 - Multiple heart sounds, rates, and intensities
 - ECG rhythms are generated in real-time
 - Bilateral carotid, radial, brachial, femoral, popliteal and pedal pulses synchronized with ECG
 - Pulses vary with blood pressure and are continuous and synchronized with the ECG even during a paced rhythm
- Drug recognition system
- Automatic drug recognition detects medication type, dose, and rate injected into the lower right arm
 - Includes a pre-programmed library of virtual medications
 - Supplied with 20 syringes having wireless tags
 - Add new medications using the UNI software editor
 - Compatible with UNI Automatic Mode
 - Automatically simulates drug interactions
- Neural responses
- Eyes are controlled automatically by the physiologic model or directly by the instructor
 - Select pupillary response to light
- Speech Vital signs monitor
- Controlled via wireless tablet PC
 - Use selected configuration or create your own configuration to mimic the real monitors used in your facility
 - Share images such as ultrasounds, CT scans, lab results
 - Touchscreen control
 - Monitor can be configured by the instructor to suit the scenario
- Articulation and movement
- Realistic joint articulation
 - Supports supine, prone, recumbent, and sitting positions
- Seizure convulsions User Interface
- Sensor track student actions

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| | <ul style="list-style-type: none"> • Changes in condition and care provided are time stamped and logged • 26 pre-programmed scenarios that can be modified by the instructor even during the scenario • Create your own scenarios (add/edit) • Change the simulator's condition during scenario <p>Other</p> <ul style="list-style-type: none"> • Central cyanosis • Fill bladder and perform Foley catheterization • Male urinary catheterization with fluid return • Support placement of nasogastric tube • Auscultate bowel sounds <p>PACKAGE INCLUDES:</p> <ul style="list-style-type: none"> • Advanced Multipurpose Simulator • Wireless tablet PC preloaded with UNI. software license, automatic mode license • Scenario package • Protective ""bump"" case • RF module • Battery charger • Replacement surgical tracheas • Replacement pneumothorax inserts • Replacement IO bones • set of 20 drug recognition syringes • Filling kits • Headset for streaming audio • Carrying case • User manual <p>WITH TRAINING</p> | |
| 3 | <p>ADVANCE PATIENT TRAINING ARM</p> <p>A micropump mounted within the simulator's shoulder delivers automatically generated arterial pulses at the radial and brachial sites and controls arterial blood flow by allowing variable heart rate and pulse strength. Interchangeable arterial and venous inserts within the forearm allow the creation of arteriovenous (AV) fistulas and for the placement of AV grafts, while a simulated healed fistula insert provides a platform on which hemodialysis exercises can be performed. An additional multi-layer insert in the bicep area can be used for incision and suture training exercises</p> <p>TECHNICAL DATA SHEET: Subcutaneous injection sites on the volar forearm and lateral upper arm IntraMuscular injection site on the upper arm Arterial system including the radial and brachial arteries Suture and incision sites on both the</p> | |

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| | <p>upper arm and forearm Hemodialysis site on the forearm Arterial and Venous insert for IV training, venipuncture practice, blood draw exercises, AV anastomosis, and placement of AV grafts. This multi-layer surgical insert includes the skin, subcutaneous tissue, muscle, radial artery, and radial vein AV fistula insert that simulates a healed fistula for hemodialysis exercises. Multi-layer bicep insert that includes the skin, subcutaneous tissue, and muscle and allows incision practice and suturing exercises Durable skin that can be pierced in excess of 200 times with a 20- or 22-gauge needle Realistic tactile feedback for both surgical and arterial & venous stick exercises Adjustable heart rate and pulse strength simulating a heart rate from 10 BPM to 150BPM Cephalic (antecubital), Basilic, Radial, and Ulnar veins as well as the radial and brachial arteries for infusion and blood draw training. Rotating arm allowing dorsal and volar access along the length of the IV training arm. Varying vessel palpability to simulate collapsed or bulging vessels Ease of assembly Latex-Free New proprietary materials replicate of skin, subcutaneous, and muscle layers at all surgical sites. Upgraded inserts, skins, and vessels for improved tactile feedback Micropump embedded within the shoulder generates variable heart rates and pulse strength. Quiet and compact, thereby improving portability of the unit. Easy to replace plug-and-play inserts to allow quick change-out between procedures Latex-free vessels with improved access for hassle-free replacement.</p> | |
| 4 | <p>ADVANCE NEWBORN PATIENT SIMULATOR</p> <p>Anatomical and physiological fidelity that allows participants to rehearse advanced-level algorithms without compromising technique or clinical guidelines. Anatomically accurate oral cavity and airway. Intubation depth and neck hyperextension/flexion detection. Visible chest rise following guideline recommended flow, PIP, and PEEP values SpO2 and EtCO2 monitoring using real sensors. Real-time quality feedback and reporting o Compression depth, rate, and interruption duration o Ventilation rate and duration o Smart CPR voice coach o Performance report summary Defibrillate, cardiovert and pace using real devices and energy Multiple vascular access sites</p> | |

GENERAL :

- Age: Full-term newborn
- Weight: 8 lbs.
- Length: 21 in.
- Tetherless and wireless; fully responsive during transport
- Wireless control at distances of up to 100 ft.
- Internal rechargeable battery provides up to 8 hrs. of tetherless operation
- Smooth and supple full- body skin with seamless trunk and limb joints
- Programmable movement: blinking, mouth open and close, arm and leg flexion and extension
- Realistic joint articulation: neck, shoulder, elbow, hip, and knee
- Forearm pronation and supination
- Lifelike umbilicus and post cord detachment navel
- Palpable bony landmarks
- Near-silent operation
- Fetus-Newborn wireless link capability
- Tablet PC preloaded with UNI included
- OMNI 2 ready
- 8 Neonatal Care SLEs
- Facilitator's Guidebook

NEUROLOGIC:

- Crying/grunting with visible mouth movement
- Blinking eyes
- Seizures/convulsions
- Programmable muscle tone: active, reduced, and limp

AIRWAY:

- Anatomically accurate oral cavity and airway
- Nasotracheal orotra- cheal intubation (ETT, laryngeal airway
- Head tilt, chin lift, jaw thrust
- Supports esophageal intubation
- NG/OG tube placement
- Bag-valve-mask ventilation support
- Neck hyperextension and flexion airway obstruction with event capture and logging
- Intubation depth detection and software event log

BREATHING:

- Spontaneous breathing
- Variable respiratory rates and inspiratory/ expiratory ratios
- Programmable unilateral chest rise and fall
- Unilateral lung sounds synchronized with respiratory rate

- Programmable retractions, "see-saw" breathing
- Mechanical ventilation support » A/C, SIMV, CPAP, PCV, PSV, NIPPV » Supports PEEP (up to 20 cmH20) » Dynamic airway and lung controls » Variable lung compliance » Bilateral bronchi resistance
- Programmable respiratory efforts for weaning/liberation
- Unilateral chest rise with right mainstem intubation (Automatic detection and logging)
- Real-time ventilation feedback
- Bilateral, midaxillary pneumothorax sites support needle decompression and chest tube insertion
- Pneumothorax sites feature palpable bony landmarks, realistic skin for cutting and suturing, bleeding, tactile pleural pop, and fluid drain
- Visible chest rise during bag valve mask ventilation
- Supports EtCO2 monitoring using real sensors and monitoring devices

CARDIAC:

- Includes comprehensive library of ECG rhythms with customizable beat variations
- Supports ECG monitoring using real devices
- Supports ECG-derived respiration monitoring (EDR)
- Real-time quality feedback and reporting » Time to CPR » Compression depth/rate » Compression interruptions » Ventilation rate » Excessive ventilation » Smart CPR voice coach
- Chest compression depth sensor
- Defibrillate, cardiovert and pace using real devices and energy
- Effective chest compressions generate palpable femoral pulses and ECG activity
- Healthy and abnormal heart sounds
- Supports virtual pacing and defibrillation

CIRCULATORY:

- Visible cyanosis, jaundice, paleness, and redness with variable intensities
- Supports manual capillary refill time assessment on the left foot (Automatic detection and logging)
- Programmable fontanel: depressed, normal, and bulging
- Palpable pulses: brachial, femoral, and umbilical
- Blood pressure dependent pulses
- Supports blood pressure monitoring using real NIBP cuff
- Audible Korotkoff sounds

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| | <ul style="list-style-type: none"> • Preductal (right hand) and post ductal (right foot) SpO2 monitoring using real devices <p>VASCULAR ACCESS:</p> <ul style="list-style-type: none"> • IV cannulation: bolus, infusion, and sampling » Hand » Scalp » Umbilicus • Umbilical catheterization (UVC/UAC): infusion and sampling • Bilateral 10 tibial infusion <p>GASTROINTESTINAL:</p> <ul style="list-style-type: none"> • Programmable abdominal distension • Urinary catheterization with return • Normal and abnormal bowel sounds Includes the following: <ul style="list-style-type: none"> • Newborn model • Neonatal Simulation Learning • Tablet PC reloaded for UNI • Automatic Mode license • Preprogrammed scenario library • RF module • Battery charger • Defibrillation adapter • Filling kits • Accessories • CO2 adapter • Carrying case • User manual • 1 year standard warranty) <p>WITH TRAINING</p> | |
| 5 | <p>BASSINET WITH STAND AND FOAM</p> <ul style="list-style-type: none"> - Stainless steel structure - Removable and anatomic laminated plastic basket - Pushing handle - 80mm rolling wheels - Foam mattress upholstery - Dimensions: 80x48x85cm | |
| 6 | <p>PEDIA RESUSCITATION KIT</p> <ul style="list-style-type: none"> - 1 Laryngoscope - 2 Pedia ET Tubes Sizes 2.0 - 2 Pedia ET Tubes Sizes 2.5 - 2 Pedia ET Tubes Sizes 3.0 - 2 Pedia ET Tubes Sizes 3.5 - 2 Pedia ET Tubes Sizes 4.0 - 2 Pedia ET Tubes Sizes 4.5 - 2 Pedia ET Tubes Sizes 5.0 | |

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| | <ul style="list-style-type: none"> - 2 Pedia ET Tubes Sizes 5.5 - 1 Guide Wire, Ambu Bag - 1 Face Mask for Ambu bag - 1 Tubing for AMBU bag | |
| 7 | <p>CERVICAL DILATATION AND EFFACEMENT SIMULATOR</p> <p>Provide lifelike simulation of cervical examination prior to birth. Every effort has been made to provide exceptional realism so that the visual and tactile sensations experienced provide a positive transition to patient procedures. The set consists of six separate 4 in. W x 4-1/4 in. H x 4-3/4 in. D pelvic blocks. The external appearance of all six blocks is identical, with the variations being in the internal structure. The internal texture, tissue density, and correct anatomical size are all carefully represented to provide the most realistic condition possible. The simulators depict six different cervical conditions prior to birth. Each is clearly identified on the back side to indicate which condition exists internally. Students will gain a tactile understanding of dilatation, 2 cm, 5 cm, 7 cm, 9 cm, and effacement conditions. Includes six simulation blocks (Stages One through Six), acrylic stand, glove, powder, lubricant, instruction card, and a hard carry case.)</p> | |
| 8 | <p>CERVICAL DILATATION AND EFFACEMENT MODULE</p> <ul style="list-style-type: none"> - Inserts to represent early labor cervixes effacement, dilatation and ripeness in line with Bishop's scoring - Numerous presenting part inserts including flexed, deflexed, brow, face, breech, caput and molding - Positioning mechanism allows adjustment of station, dilation and tilt without removal from the simulator - Dynamic positioning mechanism allows adjustment of dilation in active labor - Markers allow tutor to read positioning in situ - Presenting parts and cervix can be set up outside the model for demonstration, then placed inside for examination - Latex free - Realistic representation of cervixes, including anterior lip, and presenting parts in soft birth canal, with palpable ischial spines Assessment and Bishop's scoring of: Cervical dilation (1-10cm Cervical effacement (0-100%) Cervical ripeness/consistency (soft, medium, hard) Cervical position (anterior, mid, | |

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| | <p>posterior) Foetal station (-3 to +3) Assessment of and artificial rupture of membranes Assessment of presenting part - flexed, deflexed, brow, face, breech, caput and moulding and caput formation)</p> | |
| 9 | <p>CERVICAL EXAM AND PAP SMEAR TEST TRAINER</p> <p>Students can practice external and internal examinations, speculum insertion, and cytological sampling techniques on a simulator that is incredibly realistic and easy to use. Includes external genital pad, vagina, seven-piece cervix set in plastic case, support blocks, baby powder, hydroxyethyl cellulose, blood packet, syringe, lubricant, and instruction manual. Features: Compact size for easy setup, storage, and transport Disassembles completely for easy cleaning Extra-soft material and lifelike detail give extremely realistic training experience Fraction of the cost of a full-size simulator Includes materials for making realistic body fluids and secretions Modular design offers quick change-out for different scenarios Movable cervix Seven cervical conditions: normal, early pregnancy, polyp, early cancer, late cancer, inflammation, and dysplasia)</p> | |
| 10 | <p>CLINICAL FEMALE PELVIC TRAINER</p> <p>Partial thighs aid anatomical orientation Soft and strong perineum and labia</p> <p>REALISM: Abdominal wall with fat layer makes palpation more realistic Labia can be parted realistically Each uterus is presented at the correct anatomical angle</p> <p>VERSATILITY: Abdominal wall can be removed quickly and easily Modules can be changed quickly and easily</p> <p>CLEANING: Skin surface is washable using soap and water</p> <p>SAFETY: Latex free ANATOMY Suitable for use with a simulated patient</p> <p>ANATOMY: Abdomen, pelvis and genitalia Vagina, cervix, anus and lower bowel Interchangeable uterine modules</p> | |

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| | <p>with different complications Modules: Normal - Nulliparous Cervix Large Fibroid - Nulliparous Ectropion Cervix Small Fibroid - Nulliparous Polyp Cervix Ovarian Cyst - Multiparous Cervix Retroverted - Multiparous Cervix 10-12 Weeks Pregnant 14-16 Weeks Pregnant</p> <p>SKILLS GAINED: Recognition of perineal and pelvic anatomy including bony landmarks Digital vaginal examination Bi-manual examination Cervical smear procedure (including use of speculum) Digital rectal examination</p> | |
| 11 | <p>ENHANCED CAESAREAN SECTION MODULE</p> <ul style="list-style-type: none"> - Uterus holds baby firmly in position for cephalic, breech and transverse presentations - Fundal pressure can be applied to aid delivery of the baby for IF manoeuvres - Pre-incised skin allows easy repeat delivery practice - Realistically mimics the restrictive space of the pelvic inlet for IF manoeuvres - Accommodates retraction using metal, plastic or rubber retractors - Abdominal skin has realistic appearance, fat layer and feel of at-term abdomen - Realistic feel of uterus interior during delivery - Head and shoulders present at realistic level in relation to the uterine incision - Allows for training in routine and complex caesarean section at full dilation - Latex Free - Cephalic and breech delivery - Application of fundal pressure - C-section at full dilation - Delivery of a baby with an impacted head: - Abdominal cephalic disimpaction - Vaginal disimpaction methods (vaginal up push) - Reverse breech extraction - Patwardhan's techniques - Use of balloon disimpacting device (fetal pillow) - Delivery of a transverse lie baby - Instrument assisted C-section delivery - Delivery of the placenta - Teamwork and human factors training in emergency C-section) | |

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| 12 | <p>EPISIOTOMY AND PERINEAL LACERATION TRAINING KIT</p> <p>Offers an opportunity for students to master the techniques needed to repair most common birth injuries. By making their own incision into the soft, lifelike pad, students and instructors can create a traditional episiotomy or nearly any type of first-through fourth-degree lacerations. Embedded within the tissue are discreet structures representing the bulbocavernous muscle, transverse perineal muscle, and external anal sphincter. These muscles can be cut and repaired individually just as they would be in a real patient. The simulated tissue will remain tough and resilient through many training sessions. The lifelike feel allows the development of instrument handling skills, amount of tension on sutures, and different knot-tying methods. A fully adjustable stand holds the pad and molded base at any angle. It includes soft pad with molded base, adjustable stand, dissection instruments in fold-over case, one suture with curved needle, and a soft carry case.</p> | |
| 13 | <p>EPISIOTOMY LACERATION PAD REPLACEMENT</p> <p>Replacement pad for Life/form Soft, lifelike pads for use with Life/form Episiotomy & Perineal Laceration Training Kit</p> | |
| 14 | <p>EPISIOTOMY MODULE</p> <p>Baby head has realistic look and feel, providing landmarks and appropriate tactile response when inserting fingers to guard the baby's head Repair tape increases the longevity of the episiotomy pad, allowing for multiple uses per pad Illustration pack to help trainees get familiarized with key landmarks and where to place the cut Realistic representation of tissue to represent a stretched perineum Skin surface is washable using soap & water Product is latex free Identification of fontanelles Handling of a stretched perineum Reducing the risk of damaging the baby or mother Infiltration of perineum prior to episiotomy Performance of mediolateral or midline episiotomy Use of instruments</p> | |
| 15 | <p>MATERNAL AND NEONATAL BIRTHING SIMULATOR - ADVANCED</p> <p>MATERNAL: - Lightweight, full-body female - 66 in. (167 cm) long, 35-lb. (16 kg) weight</p> | |

- Simple to transport in pre-hospital scenario training
- Superior range of motion with fully articulated joints
- Bony landmarks including ischial spines
- Change appearance quickly with multiple hair and eye color combinations
- five (5) years warranty

NEONATE:

- Functions Airway management: intubation and ventilation with chest rise
- Amniotic sac
- Articulating arms and legs
- Articulating baby
- 18 in. (45 cm) long, 22-lb. (1 kg) weight Birthing positions
- hands and knees, lateral, supine Breech deliveries
- complete, incomplete, Footling, and Frank

- Cervical dilation
- 6 stages Cesarean section delivery
- CPR Deliveries
- vaginal, cesarean, forceps-assisted, and vacuum-assisted
- Episiotomy repair
- External version
- Fetal palpation
- abdominal and Leopold's maneuvers Fetal suction
- Fundal massage
- Intramuscular injection sites (maternal only), right deltoid, left deltoid, right thigh
- Manual birthing maneuver
- instructor/student-controlled fetal descent
- Membrane rupture

ORAL AND NASAL CARE

- lavage, gavage, suctioning
- Patient positioning and transfer techniques

- Placenta previa, Postpartum care Postpartum hemorrhage
- Scalp electrode placement
- Shoulder dystocia maneuvers
- McRobert's, Suprapubic Pressure, Rubin's I and II, Wood's Screw, Reverse Wood's Screw, Posterior Arm, Gaskin Umbilical cord clamping and cutting Umbilical cord prolapse
- Includes Abdominal pad

ABDOMINAL SKIN

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| | <ul style="list-style-type: none"> - 1 normal, 1 cesarean - Amniotic sac, - 50 Articulating baby - Cervices - stages 1-6 - Chest skin Clotting blood CPR chest - Eyes, 3 sets (brown, blue, and green) - Fundus - Hospital gown - Inflation tubing with squeeze bulb - Large soft rolling carry case Life/form - Blood Pressure Arm Life/form - Complete Set of Clots and Hemorrhages, 5 - 1 each of small blood clot, medium blood clot, large blood clot, perineal hemorrhage, and hemorrhage blood pool Life/form - IV Arm Life/form - Micro-Preemie Simulator Life/form - Newborn Nursing Skills and ALS Simulator - full-term newborn - Lubricating jelly - Lung bag - Pelvic block 3 perineal skins - prenatal/birthing/episiotomy - Perineal skin stabilizer pad Placenta Positioning bag Small soft carry case Umbilical clamp 4 umbilical cords - 1 long, 3 short 3 wigs - black/blonde/brown) WITH TRAINING | |
| 16 | <p>VAGINAL SPECULUM</p> <ul style="list-style-type: none"> - Stainless: 1 dozen Small size - Stainless: 1 dozen Medium size - Stainless: 1 dozen Large size - Blade width: approx. 35 mm. - Material: Austenitic steel (non-quenched, non-magnetic steel). Austenitic steel composition: 16 - 18% chromium; 10 - 14% nickel; 2 - 3% molvbdenum. - Reusable | |
| 17 | <p>BREAST EXAMINATION TRAINER</p> <ul style="list-style-type: none"> - Advanced Breast Examination Trainer provides a highly realistic learning platform for acquiring the skills required to perform Clinical Breast Examination (CBE) and teaching Self breast examination (SBE). Featuring 6 readily interchangeable and multi-positional pathologies, | |

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| | <p>providing healthcare professionals with the tools to identify various complications and pathologies, including carcinomas, cysts, fibrocystic disease and fibroadenoma. Both Simulated Patient and benchtop training can be used for any undergraduate programs running OSCEs or healthcare professionals promoting best practice techniques to trainees and patients.</p> <p>OVERVIEW: Can be used with a Standardized Patient Pathologies can be placed in various predetermined location points and are easily changeable Dual purpose product: bench top and hybrid Hard torso available for bench top use</p> <p>REALISM: Soft tissue breasts look and feel realistic Clavicular and axilla pads for accurate lymph node placement</p> <p>VERSATILITY: Pathologies can be placed in various predetermined location points and are easily changeable Comfortable to wear for long periods of time during OSCEs and assessments</p> <p>CLEANING: Skin surface is washable using soap and water</p> <p>SAFETY: Latex free</p> <p>ANATOMY: Realistic soft tissue breast anatomy Pathologies supplied: Carcinomas: 2cm, 3cm, 5cm Cyst Fibrocystic disease Fibroadenoma</p> <p>SKILLS GAINED: Clinical breast examination (CBE) Self breast examination (SBE) Identification of anatomical landmarks Identification of lymph nodes (axillary, supra & infraclavicular) Location and diagnosis of pathologies Professional-to-patient communication)</p> | |
| 18 | <p>DISPOSABLE MATERIAL</p> <ul style="list-style-type: none"> - 4 boxes Operative sponges - 1 box Sterile Surgical gloves sizes 6.0 - 1 box Sterile Surgical gloves sizes 6.5 - 1 box Sterile Surgical gloves sizes 7.0 | |

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| | <ul style="list-style-type: none"> - 1 box Sterile Surgical gloves sizes 7.5 - 1 box Sterile Surgical gloves sizes 8.0 - 4 boxes Silk 3-0 Sutures with Atraumatic Needles Round and Cutting - 100 pcs Laboratory Gowns with Long Sleeves and string around the waist area and Surgical Head Caps - 100 pcs Personal Protective Equipment: (Cover-all sizes 25 pcs Small, 25 pcs Medium, 25 pcs Large, and 25 pcs X-Large - 100 pcs Surgical Facemasks - 100 pcs Shoe covers - 100 pcs Syringes with needles 3cc - 100 pcs Syringes with needles 5cc - 100 pcs Syringes with needles 10cc - 100 pcs Operative Eyesheets - 50 pcs Surgical Blade No. 10 | |
| 19 | <p>HOSPITAL BED WITH MATTRESS</p> <ul style="list-style-type: none"> - Mattress Dimension: 36 × 75 × 4 inches, - Leatherette cover, - Rubberized foam - Bed Overall Dimension : 79 × 38 × 19 inches - Two cranks, manual type | |
| 20 | <p>INTRAVENOUS POLES STANDS</p> <ul style="list-style-type: none"> - Stainless steel with base and rollers for easy mobilization - IV Stands are designed to provide durability and easy movement in a variety of patient-care settings. - Each IV pole is easy to adjust and features double circular hooks. - Drive Medical's IV stands are designed to support IV pumps and controllers. - Telescoping poles adjust from 40"" to 82"", double circular hooks for solution suspension, product weigh 13 pounds. - Four rubber wheels for smooth rolling during transport. - Chrome plated steel with a weighted base to provide stability and reduce the risk of tipping. - Easily adjust the height with it's locking collar. <p>Specifications:</p> <ul style="list-style-type: none"> - Height Adjustment: 40"" - 82"" - Product Weight: 13 lbs | |
| 21 | <p>MEDICAL CHAIR</p> <ul style="list-style-type: none"> - Round stools with metal body and legs and rollers - Height adjustable. - Mounted on 5 swivel castors. | |

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| 22 | <p>MEDICAL FOOT STOOL</p> <ul style="list-style-type: none"> - Frame made of non-magnetic stainless steel pipes - A step made of laminated MDF covered with antislip rubber pad - Rubber foot caps for stability - Knockdown fabrication Size: L 500 × W 300 × H 300 mm | |
| 23 | <p>OPERATING ROOM LIGHTS</p> <ul style="list-style-type: none"> - Reflector diameter 550mm - Center illuminance 120000 Lux - Spot diameter(d10) ≥150mm - Spot diameter(d50) ≥ 120mm - Light beam depth ≥ 900mm - Color temperature 4200±300k - Color rendering index Ra> - 92 Maximum illuminance E<500W/m² - Brightness adjustment: 10 continuous adjustment. - Height: 1500-2500mm - WITH INSTALLATION | |
| 24 | <p>SUTURE PRACTICE ARM</p> <p>The realistic anatomy. Suture Training Arm offers the possibility for suture training that is a lot more complex than with regular suture pads. Given its movable hand and fingers, even challenging sutures in hard to reach places like between the fingers can be practiced. Both the skin and the subcutaneous tissue are represented for a life-like suturing experience. The instructor can inflict wounds independently wherever needed on the arm. Their size and form can be customized, leaving room for a large variety of training possibilities. Additionally, each wound can be sutured several times, making this trainer very economic and suitable even for larger skill training classes.</p> <ul style="list-style-type: none"> • Movable fingers for suture training of challenging wounds between fingers • Skin and subcutaneous tissue differentiated for realistic suture experience • Wounds can be inflicted by instructor anywhere on the training arm • Each cut can be sutured several times • Surgical staples procedure possible | |
| 25 | <p>SUTURE TRAINING KIT</p> <ul style="list-style-type: none"> - Needle Holder - Holding Forceps - Scissors | |

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| | <ul style="list-style-type: none"> - Mosquito Forceps - Blade Holder - Suturing Pad - Silicone Casing | |
| 26 | <p>DATA ACQUISITION DEVICE FOR PHYSIOLOGY AND PHARMACOLOGY Data Acquisition Teaching System with Basic Human Physiology Kits with Perpetual Offline Lab Station License & with Three (3) years online subscription</p> <p>1) DATA ACQUISITION UNIT The data acquisition unit features 4 general purpose inputs (DIN), a dual Bio Amp, isolated stimulator, trigger input and an analog output (nonisolated). It also includes an 12C port for connection. Features a durable aluminum enclosure and ships with a Stimulating Bar Electrode, Pulse Transducer, Shielded Bio Amp Cable, Shielded Lead Wires (5), BNC-DIN Smart Adapter (2), and BNC to DIN Cable (2m). Uses a USB interface for connection to Windows and has an aggregate sampling rate of 400k samples/s (100k samples/s per channel). The Bio Amp and Isolated Stimulator are certified safe for human connection, BF rated. General purpose inputs 3 & 4 are shared with the built-in dual Bio Amp.</p> <p>2) 1 SET PHYSIOLOGY ACCESSORY KIT FOR TEACHING The Physiology Accessory Kit contains all the components required to perform standard physiology experiments:</p> <ul style="list-style-type: none"> • Grip Force Transducer • Finger Pulse Transducer • Push Button Switch • Respiratory Belt • Reusable ECG Electrodes (3 pcs) • Dry Earth Strap • EEG Flat Electrodes (5 pcs) • Electrode Cream • Electrode Paste (3 pcs) • Abrasive Gel • Disposable ECG Electrodes (100 pcs) • Cardio Microphone • Sphygmomanometer • 12-Lead ECG Switch Box • Tendon Hammer • Skin Temperature Probe • Thermistor Pod | |

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3) 1 SET HUMAN RESPIRATORY KIT

The Human Respiratory Kit allows recording and analysis of respiratory parameters such as minute ventilation and tidal volume along with the calculation of PIF, PEF, FVC and FEV1 using the LabChart Spirometry Extension (Win & Mac):

- Spirometer Pod
- Respiratory Flow Head
- Student Disposable Respiratory Kit (5 pcs)
- Clean Bore
- Disposable Filters (50 pcs)

4) 1 UNIT LABORATORY-BASED EDUCATION PLATFORM

It enables educators to create their own experiments for their students to complete in the lab. Also allows educators access to an online library of high-quality lessons that can be edited to suit their laboratory course.

5) 50 LICENSES ONLINE FOR 50 STUDENTS

Access & Physiology/Pharmacology Content Pack for Three (3) years. Cloud-based technology lets students prepare for class and revise their course material anywhere and anytime that suits their learning. Lessons will be resized and optimized to look great and function perfectly. Subscription allows access to all software features, including standard lesson templates, authoring tools for content creation and analytics and assessment tools for evaluating and documenting student progress. This will include content pack that gives you access to Physiology and Pharmacology content including Human, Animal and Exercise Physiology.

EXPERIMENTS THAT CAN BE ACCESS ARE:

- Human Physiology
 - Airflow
 - Autonomic Nervous System
 - Blood Counting
 - Blood Clotting
 - Blood Pressure
 - Breathing
 - Cardiovascular Effect of Exercise
 - Cardiorespiratory Effects of Exercise
 - Introduction to Fitness Testing
 - Diving Response
 - Electroencephalography
 - Endocrine Physiology
 - Glucose Absorption

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| | <ul style="list-style-type: none"> - Heart & ECG Lab - Heart & Peripheral Circulation - Heart Sounds - Kidney & Urine - Mechanics of Ventilation - Muscle & EMG - Peripheral Nerve Function - Reflexes & Reaction Times - Sensory Illusion - Sensory Physiology - Skeletal Muscle Function - Brain Structures & Reflexes - Water Balance • Animal Physiology - Earthworm Smooth Muscle - Earthworm Action Potential - Frog Heart - Frog Nerve - Frog Neuromuscular Junction - Frog Skeletal Muscle - Gin Trap Closure Reflex • Pharmacology - Airways Resistance - Mammalian Heart - Mammalian Uterus - Toad Rectus Abdominis - Unstimulated Ileum - Unstimulated Rat Deferens - Vascular Smooth Muscle 6) 1 UNIT LAPTOP compatible with the data acquisition unit WITH TRAINING | |
| 27 | <p>BINOCULAR MICROSCOPE</p> <ul style="list-style-type: none"> - Optical System : Color Corrected Infinity Optical System - Observation Tube: Widefield binocular 30° [F.N.20] - Nosepiece: Reversed quadruple - EYE- Piece: Widefield WF 10X FOV-20mm Stage: 140 x 135mm surface; 76 x 40mm movement; coaxial controls. Both side Reckless stage - Condenser: N.A. 1.25 Abbe condenser with slider slot; Focusable and Lockable - Focus: Brass gear Z-Axis movement 25mm stroke Fine focus with 2µm minimum increment, Coarse focus with torque adjustment | |

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| | - Illumination: Built-in transmitted 3W LED critical illumination) WITH DEMO | |
| 28 | <p>ELECTRIC GYNECOLOGICAL OPERATING TABLE</p> <p>- Electric Table gynecologic surgical for maternity and use a variety of gynecological surgery. - The leg panels are removable, convenient adjustment and is made from double deck plate with high strength. - It has a button to lift up and down, safe and reliable.</p> <ul style="list-style-type: none"> • Length: 1850mm • Width: 600mm • Adjustable range of height: 1000~750mm • Back section raised from the horizontal: $\geq 75^\circ$ • Reversed: $+22^\circ$--22° • Dimension: 1355*725*885 • Assembly is Required | |
| 29 | <p>ELECTRIC MULTI-FUNCTION OPERATING TABLE</p> <p>Four-stage bed panel, the size of the bed is ergonomically, and can easily adjust the various positions in the cervical spine, lumbar spine, spine, etc. Equipped with a miniature hand controller, it can manipulate the various preset movements of each segment by touch. The legs can be folded, disassembled and removable, easy to adjust, convenient for urological surgery and the use of the orthopedic tractor. The design of the center column is designed to maximize the stability of the machine, which is made of stainless steel.</p> <ul style="list-style-type: none"> • Length: 2050mm • Width: 540mm • Adjustable range of height: 790~1060mm, 710~960mm • Reversed: $+25^\circ$--25° • Later Tilt(left/right) : $+20^\circ$--20° • Head rest(up/down): $+45^\circ$--80° • Back Plate(up/down): $+75^\circ$--15° • Leg board floding downward/ outward angle: $90^\circ/90^\circ$ • Longitudinal Sliding: 350mm • Kidney bridge elevation: 120mm • Power supply: 220V,50Hz/110v,60H • Standard configuration: Build-in Battery | |

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| | <ul style="list-style-type: none"> • Double control system: Hand remote controller, control panel at side of column | |
| 30 | <p>SPECTROPHOTOMETER</p> <ul style="list-style-type: none"> - Wavelength Range: 190 - 1100 nm - Bandwidth: 1.8nm - Wavelength Accuracy: $\pm 0.1\text{nm}$ (D2 656.1 nm); $\pm 0.3 \text{ m}$ (Full Range) - Wavelength Reproducibility: $\leq 0.1 \text{ nm}$ - Photometric Accuracy: $\pm 0.2\% \text{ T}$ - Photometric Repeatability: $\leq 0.15\% \text{ T}$ - Straylight: $\leq 0.03\% \text{ T}$ - Stability: $\pm 0.0004 \text{ A/h}$ (at 500nm) - Baseline Flatness: $\pm 0.001 \text{ A}$ - Noise: $\pm 0.0005 \text{ A}$ - Photometric Range: 0-200%T, -4.0-4.0A, 0-9999C - Wavelength Setting Mode: - Automatic Scanning Speed: High, Middle, Low, - Optional Output: USB port Printer Port: Parallel Port Display: LCD (320 x 240) - Light Source: Deuterium and Tungsten Halogen Lamp Detector: - Silicon Photodiode - Power: 220V AC $\pm 10\% / 50\text{Hz}$ or 110V AC/60HZ - Dimension: 625 mm x 430 mm x 210mm - Accessories: Glass cuvette 10 mm (4 pcs.), Quartz cuvette 10 mm (2 pcs), User manual (1 piece), Software manual (1 piece), Power Cord (2 pieces), Dustproof Cover (1 piece), Software CD (1 piece), USB Cable (1 piece) - Additional Accessory: Laptop: Windows 11 Home, Intel Core™ i5, 8 GB of onboard DDR4, 512GB SSD, 14.0" display with IPS, Free Office 2021 for Home and Student - WARRANTY: Within 2 years after installation on parts and services, excluding consumables) - WITH TRAINING | |
| 31 | <p>MICROBIOLOGY SLIDES</p> <p>1. FUNGI</p> <ul style="list-style-type: none"> - MI-01 Penicillium w.m. - MI-02 Aspergillus w.m. - MI-03 Actinomycets w.m. - MI-04 Rhizopus nigrocans w.m. - MI-05 Saccharomyces w.m. - MI-06 Macroconidia w.m. - MI-07 Microconidia w.m. - MI-08 Septa hypha w.m. - MI-09 Nonseptate hypha w.m. Candida albicans Mucor spp. | |

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2. BACTERIA

- MI-10 Bacteria (three types smear Staphylococcus, Pseudomonas and Spirillum smear Streptococcus pneumonia Streptococcus pyogenes Bacillus anthracis Klebsiella pneumoniae)

3. COCCUS

- MI-11 Candida albicans Smear
- MI-12 Terads smear
- MI-13 Sarcina smear
- MI-14 Staphylococcus aureus smear
- MI-15 Pneumococcus smear
- MI-16 Group A Streptococcus smear
- MI-17 Group B Streptococcus smear
- MI-18 Branhamella catarrhalis smear
- MI-19 Neisseria gonorrhoeae smear
- MI-20 Cryptococcus neoformans smear

4. BACILLUS

- MI-21 Escherichia coli smear
- MI-22 Pseudomonas aeruginosa smear
- MI-23 Typhoid Bacilli smear
- MI-24 Dysentery bacillus smear
- MI-25 Neisseria meningitidis smear
- MI-26 Brucella abortus smear
- MI-27 Salmonella smear
- MI-28 Proteus smear
- MI-29 Bacillus anthracis smear
- MI-30 Perlschnurtest smear
- MI-31 Corynebacterium diphtheriae smear
- MI-32 Clostridium tetani smear
- MI-33 Clostridium botulinum smear
- MI-34 Bacillus cereus smear
- MI-35 Bacillus subtilis smear
- MI-36 Lactobacillus smear
- MI-37 Bacterium rhusiopathiae suis smear
- MI-38 Bordetella pertussis smear
- MI-39 Bifidobacterium smear
- MI-40 Mycobacterium tuberculosis smear
- MI-41 Clostridium perfringens smear
- MI-42 Bacterium pestis smear

5. SPECIAL STRUCTURE

- MI-43 Endospore smear
- MI-44 Capsule smear
- MI-45 Single Polar flagella smear
- MI-46 Peritrichous flagella smear
- MI-47 Lophotrichous smear

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| 6. SPIRILLAR BACTERIUM - MI-48 Vibrio cholerae smear - MI-49 Helicobacter pylori smear - MI-50 Leptospira w.m 7 | |
| ***** Nothing Follows***** | |

Additional Requirements:

The technical specifications that shall be submitted by the Bidder, shall include among others:

- a. Product specifications as supported by brochures or catalogues;*
- b. Bidder's certification that it will provide technical support team during the duration;*
- c. Bidder's certification for one (1) year warranty; and*
- d. Certification from manufacturer/distributor that bidder is authorized dealer.*

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