

**SCIENCE AND MATHEMATICS EQUIPMENT
(Mass Production)
INSPECTION AND TEST PROTOCOL**

LOT 1

Item No.	Item Description	Procedure
1	STAND BASE	<ul style="list-style-type: none"> (a) In the evaluation of sample, the technical specifications, as part of the Contract, will be used as reference. However, in the pre-delivery inspection, it will be the approved sample that will be used as reference. (b) To determine the conformity of the plastic materials to the technical specifications, the material should be tested by DOST material testing facilities or at any DOST-accredited testing institution. Test certificate should be issued by the testing unit, the original copy should be submitted to BLR-Cebu to validate the specified material. A representative of the Procuring Entity should be present during preparation and submission of the material test specimens to testing facility. All expenses for the said test shall be shouldered by the Supplier. There must be no breakage, chipped edges, sharp edges, cracks, scratches, and other deficiencies/defects on the item. (c) Do material evaluation on non-plastic parts. (d) Do dimensional inspection. Measure the height, width, length, depth, hole diameters, distances between holes, and thickness. Check the parallelism and perpendicularity of the holes with respect to each other. Check the horizontality of the front holes as well as the verticality of the top hole when the item is laid flat on a horizontally-level table surface. Also, check the distance from the said table surface to the center/s of the front hole/s. (e) Inspect the embossed markings. (f) Inspect the surface finish. The color should conform to what is specified in the technical specifications. There must be no warping of material. (g) Inspect the setscrews and their threads as well as the threads of the inserts. (h) Inspect the rubber soles. (i) Do functionality test to validate the level of performance and accuracy of the item especially when used as component of the Stand Setup and/or as component of the Cart-Rail System. The Stand Setup assembly (stand base, stand supports, and stand rods) should be stable and level when laid on a flat surface.
2	STAND SUPPORT	<ul style="list-style-type: none"> (a) In the evaluation of sample, the technical specifications, as part of the Contract, will be used as reference. However, in the pre-delivery inspection, it will be the approved sample

		<p>that will be used as reference.</p> <p>(b) To determine the conformity of the plastic materials to the technical specifications, the material should be tested by DOST material testing facilities or at any DOST-accredited testing institution. Test certificate should be issued by the testing unit, the original copy should be submitted to BLR-Cebu to validate the specified material. A representative of the Procuring Entity should be present during preparation and submission of the material test specimens to testing facility. All expenses for the said test shall be shouldered by the Supplier. There must be no breakage, chipped edges, sharp edges, cracks, scratches, and other deficiencies/defects on the item.</p> <p>(c) Do material evaluation on the non-plastic parts.</p> <p>(d) Do dimensional inspection. Measure the height, width, length, depth, hole diameter, and thickness. Check the horizontality of the hole when the item is laid flat on a horizontally-level table surface. And check the distance from the said table surface to the center of the hole.</p> <p>(e) Also, check the centricity of the hole with respect to the sides of the item.</p> <p>(f) Inspect the embossed markings.</p> <p>(g) Inspect the surface finish. The color should conform to what is specified in the technical specifications. There must be no warping of material.</p> <p>(h) Inspect the rubber sole.</p> <p>(i) Do functionality test to validate the level of performance and accuracy of the item especially when used as component of the Stand Setup. The Stand Setup assembly (stand base, stand supports, and stand rods) should be stable and level when laid on a flat surface.</p>
3	RING WITH STEM	<p>(a) In the evaluation of sample, the technical specifications, as part of the Contract, will be used as reference. However, in the pre-delivery inspection, it will be the approved sample that will be used as reference.</p> <p>(b) There must be no sharp edges, cracks, scratches, and other deficiencies/defects on the item.</p> <p>(c) Do dimensional inspection. Measure the length, rod diameter, and ring diameter of the item.</p> <p>(d) Do material evaluation.</p> <p>(e) Inspect the surface finish.</p> <p>(f) Do functionality test to validate the level of performance of the item especially when used as component of the Stand Setup.</p>
4-6	STAND ROD	<p>(a) In the evaluation of sample, the technical specifications, as part of the Contract, will be used as reference. However, in the pre-delivery inspection, it will be the approved sample that will be used as reference.</p> <p>(b) There must be no sharp edges, cracks, scratches, and other deficiencies/defects on the item.</p> <p>(c) Do dimensional inspection. Measure the diameter and length of the rod.</p> <p>(d) Do material evaluation.</p> <p>(e) Check the straightness of the rod taking into consideration</p>

		<p>the maximum allowable linear deflection as specified in the technical specifications.</p> <p>(f) Inspect the surface finish.</p> <p>(g) Check the radius of the rounded ends of the rod.</p> <p>(h) Do functionality test to validate the level of performance and accuracy of the rod especially when used as component of the Stand Setup.</p>
7	MULTICLAMP	<p>(a) In the evaluation of sample, the technical specifications, as part of the Contract, will be used as reference. However, in the pre-delivery inspection, it will be the approved sample that will be used as reference.</p> <p>(b) To determine the conformity of the Aluminum-Silicon-Copper Alloy material to the technical specifications, the material should be tested by DOST material testing facilities or at any DOST-accredited testing institution. Test certificate should be issued by the testing unit, the original copy should be submitted to BLR-Cebu to validate the specified material. A representative of the Procuring Entity should be present during preparation and submission of the material test specimens to testing facility. All expenses for the said test shall be shouldered by the Supplier. There must be no breakage, chipped edges, sharp edges, cracks, scratches, and other deficiencies/defects on the item.</p> <p>(c) Do material evaluation on the non-zinc alloy parts.</p> <p>(d) Do dimensional inspection. Measure the height, width, length, depth, hole diameters, and thickness. Check the parallelism and perpendicularity of the sides with respect to each other.</p> <p>(e) Inspect the embossed markings.</p> <p>(f) Check the holes and their threads as well as their alignment to the V-cuts situated opposite them. Also, check the perpendicularity of the said holes with respect to the surfaces on which they were drilled.</p> <p>(g) Inspect the surface finish.</p> <p>(h) Inspect the setscrews and their threads.</p> <p>(i) Do functionality test to validate the level of performance and accuracy of the item especially when used as component of the Stand Setup. <i>(Note: Special attention shall be given to the perpendicularity and parallelism of the assembled parts of the Stand Setup.)</i></p>
8	UNIVERSAL BOSSHEAD	<p>(a) In the evaluation of sample, the technical specifications, as part of the Contract, will be used as reference. However, in the pre-delivery inspection, it will be the approved sample that will be used as reference.</p> <p>(b) To determine the conformity of the Aluminum-Silicon-Copper Alloy material to the technical specifications, the material should be tested by DOST material testing facilities or at any DOST-accredited testing institution. Test certificate should be issued by the testing unit, the original copy should be submitted to BLR-Cebu to validate the specified material. A representative of the Procuring Entity should be present during preparation and submission of the material test specimens to testing facility. All expenses for the said test shall be shouldered by the Supplier. There must be no breakage, chipped edges, sharp edges, cracks,</p>

		<p>scratches, and other deficiencies/defects on the item.</p> <p>(c) Do material evaluation on the non-zinc alloy parts.</p> <p>(d) Do dimensional inspection. Measure the height, width, length, depth, hole diameters, and thickness. Check the concentricity of the Ø 13.5mm hole from one end to the other end of the item</p> <p>(e) Inspect the embossed markings.</p> <p>(f) Check the threaded holes and their alignment to the semi-circular cuts situated opposite them.</p> <p>(g) Inspect the surface finish.</p> <p>(h) Inspect the setscrews and their threads.</p> <p>(i) Do functionality test to validate the level of performance and accuracy of the item especially when used as component of the Stand Setup. <i>(Note: Special attention shall be given to the perpendicularity and parallelism of the assembled parts of the Stand Setup.)</i></p>
9	UNIVERSAL CLAMP	<p>(a) In the evaluation of sample, the technical specifications, as part of the Contract, will be used as reference. However, in the pre-delivery inspection, it will be the approved sample that will be used as reference.</p> <p>(b) To determine the conformity of the Aluminum-Silicon-Copper Alloy material to the technical specifications, the material should be tested by DOST material testing facilities or at any DOST-accredited testing institution. Test certificate should be issued by the testing unit, the original copy should be submitted to BLR-Cebu to validate the specified material. A representative of the Procuring Entity should be present during preparation and submission of the material test specimens to testing facility. All expenses for the said test shall be shouldered by the Supplier. There must be no breakage, chipped edges, sharp edges, cracks, scratches, and other deficiencies/defects on the item.</p> <p>(c) Do material evaluation on the non-zinc alloy parts.</p> <p>(d) Do dimensional inspection. Measure the height, width, length, depth, diameters, and thickness.</p> <p>(e) Do dimensional inspection on Arm A, Arm B, the handle, and the adjusting screw.</p> <p>(f) Inspect the embossed markings.</p> <p>(g) Inspect the surface finish.</p> <p>(h) Inspect the cork linings.</p> <p>(i) See if the item has a clamp opening of Ø 6mm minimum and Ø 92 mm maximum as specified in the technical specifications.</p> <p>(j) Do functionality test to validate the level of performance and accuracy of the item especially when used as component of the Stand Setup.</p>
10	TEST TUBE HOLDER	<p>(a) In the evaluation of sample, the technical specifications, as part of the Contract, will be used as reference. However, in the pre-delivery inspection, it will be the approved sample that will be used as reference.</p> <p>(b) There must be no sharp edges, cracks, scratches, and other deficiencies/defects on the item.</p> <p>(c) Do dimensional inspection. Measure the length, width, and wire diameter.</p> <p>(d) Do material evaluation.</p>

		<ul style="list-style-type: none"> (e) Inspect the surface finish. (f) Do functionality test to validate the level of performance of the item. Test the item by picking up and holding a Ø16mm test tube full of sand. Check the grip if it is evenly applied on the surface of the test tube. Check and see if the test tube would not slide down when held in an upright position.
11	TEST TUBE RACK	<ul style="list-style-type: none"> (a) In the evaluation of sample, the technical specifications, as part of the Contract, will be used as reference. However, in the pre-delivery inspection, it will be the approved sample that will be used as reference. (b) To determine the conformity of the plastic materials to the technical specifications, the materials should be tested by DOST material testing facilities or at any DOST-accredited testing institution. Test certificate/s should be issued by the testing unit, the original copy should be submitted to BLR-Cebu to validate the specified materials. A representative of the Procuring Entity should be present during preparation and submission of the material test specimens to testing facility. All expenses for the said test shall be shouldered by the Supplier. (c) Do material evaluation of the non-plastic parts. On the Individual Parts: (d) Do dimensional inspection of the individual parts. Measure lengths, widths, depths, diameters, holes, distances between holes, threads, etc. (e) Inspect the surface finish of individual parts. Material colors specified in the technical specifications must be followed. (f) There must be no breakage, chipped edges, sharp edges, cracks, scratches, warping, and other deficiencies/defects on the individual parts. On the Assembly: (g) Check the horizontality and verticality of the test tube rack when this is laid flat on a horizontally-level table surface. (h) Do functionality test to validate the level of performance of the Test Tube Rack.
12-14	STORAGE CASE 001/002/003 (for Basic Science Equipment or Mechanics Science Equipment)	<ul style="list-style-type: none"> (a) In the evaluation of sample, the technical specifications, as part of the Contract, will be used as reference. However, in the pre-delivery inspection, it will be the approved sample that will be used as reference. (b) To determine the conformity of the plastic material to the technical specifications, the material should be tested by DOST material testing facilities or at any DOST-accredited testing institution. Test certificate should be issued by the testing unit, the original copy should be submitted to BLR-Cebu to validate the specified material. A representative of the Procuring Entity should be present during preparation and submission of the material test specimen to testing facility. All expenses for the said test shall be shouldered by the Supplier. There must be no breakage, chipped edges, sharp edges, cracks, scratches, warping, and other deficiencies/defects on the item. (c) Do dimensional inspection. Measure lengths, widths, thicknesses, diameters, radii, depths, draft angles, etc.

		<ul style="list-style-type: none"> (d) Check the surface finish. The color of the material should conform to what is specified in the technical specifications. Note: There must be no warping and/or twisting of material. (e) Check the perpendicularity and parallelism of the sides/walls with respect to each other. (f) Check the printed markings. (g) Using a spirit level, check the horizontality of the case when this is laid flat on a horizontally-level table surface. (h) Check the cover. There must be no warping and/or twisting of the cover. (i) Check the base sheathing and its fixation on the case. (j) Do functionality test to validate the storage case's level of performance and accuracy by loading the specific science equipment intended for it to store.
15	USER'S MANUAL (BASIC)	<ul style="list-style-type: none"> (a) In the evaluation of sample, the technical specifications, as part of the Contract, will be used as reference. However, in the pre-delivery inspection, it will be the approved sample that will be used as reference. (b) Check the materials. Check the kind of paper used for the front cover and back cover. Check the kind of paper used for the inside pages. Check the color/s of the prints and illustrations. Check the font type/s and font size/s used. (c) Check the number of pages. If needed, do proof-read. (d) Do dimensional inspection. Check the width, length, and thickness of the papers. (e) Inspect the binding. See how the manuals/modules are bound. (f) There must be no tear/s on the covers and pages. There must be no crumpled cover/s or page/s.
16	RAIL	<ul style="list-style-type: none"> (a) In the evaluation of sample, the technical specifications, as part of the Contract, will be used as reference. However, in the pre-delivery inspection, it will be the approved sample that will be used as reference. (b) Do dimensional inspection. Measure the diameters and length of the rail. (c) Do material evaluation. (d) Check the straightness of the rail. (e) Inspect the surface finish. (f) Check the radius of the rounded ends of the rail. (g) Do functionality test to validate the level of performance and accuracy of the rail especially when used as component in the Cart-Rail System.
17	LEVELING PAD	<ul style="list-style-type: none"> (a) In the evaluation of sample, the technical specifications, as part of the Contract, will be used as reference. However, in the pre-delivery inspection, it will be the approved sample that will be used as reference. (a) To determine the conformity of the plastic material to the technical specifications, the material should be tested by DOST material testing facilities or at any DOST-accredited testing institution. Test certificate should be issued by the testing unit, the original copy should be submitted to BLR-Cebu to validate the specified material. A representative of the Procuring Entity should be present during preparation

		<p>and submission of the material test specimens to testing facility. All expenses for the said test shall be shouldered by the Supplier. There must be no breakage, chipped edges, sharp edges, cracks, scratches, and other deficiencies/defects on the item.</p> <ul style="list-style-type: none"> (b) Do material evaluation of the non-plastic parts. (b) Do dimensional inspection. Measure length, width, depth, diameters, and thickness. (c) Check the horizontality of the pad when this is laid flat on a horizontally-level table surface. (d) Inspect the jack bolts and their threads as well as the threads of the inserts. (e) Inspect the surface finish. The color of material as specified in the technical specifications must be followed. (h) Do functionality test to validate the level of performance and accuracy of the pad especially when used as component of the Cart-Rail System.
18	DYNAMIC CART A - SPRING LOADED	<ul style="list-style-type: none"> (a) In the evaluation of sample, the technical specifications, as part of the Contract, will be used as reference. However, in the pre-delivery inspection, it will be the approved sample that will be used as reference. (b) To determine the conformity of the plastic materials to the technical specifications, the materials should be tested by DOST material testing facilities or at any DOST-accredited testing institution. Test certificate/s should be issued by the testing unit; the original copy should be submitted to BLR-Cebu to validate the specified materials. A representative of the Procuring Entity should be present during preparation and submission of the material test specimens to testing facility. All expenses for the said test shall be shouldered by the Supplier. There must be no breakage, chipped edges, sharp edges, cracks, scratches, and other deficiencies/defects on the item. (c) Do material evaluation of the non-plastic parts. <p>On the Individual Parts:</p> <ul style="list-style-type: none"> (d) Do dimensional inspection of the individual parts. Measure lengths, widths, depths, diameters, holes, distances between holes, threads, etc. (e) Inspect the surface finish of individual parts. Material colors specified in the technical specifications must be followed. (f) Check the verticality or uprightness of the sides, front face, and rear face of the cart body when this is laid flat on a horizontally-level table surface. Check, also, the horizontality of the holes as well as their alignment and parallelism with respect to each other. <p>On the Assembly:</p> <ul style="list-style-type: none"> (g) Do dimensional inspection of the assembly. Measure length, width, height, gaps between assembled parts, distances between wheels, etc. (h) There must be no breakage, cracks, chipped edges, sharp edges, scratches, warping, and other deficiencies/defects on the assembly. (i) Inspect the linear clearances between the axle shafts and the teflon bearings.

		<ul style="list-style-type: none"> (j) Inspect the alignment of the wheels with respect to each other as well as with respect to the rails on which they are to operate. The cart should run smoothly on the rails. (k) Check the verticality or uprightness of the assembly when this is laid flat on a horizontally-level table surface. (l) Check, also, the perpendicularity of the top surface of the assembly with respect to the front face, rear face, and sides. (m) Test run the cart and check the performance of the wheels. (n) Check the performance of the spring and the setting plate that would set or hold the spring in its compress state. (o) Check the weight of the cart. Note: The difference in weight between Cart A (spring-loaded) and Cart B (with counterweight) should not exceed 5 grams. (p) Do functionality test to validate the level of performance and accuracy of the cart especially when this is used as component in conducting laboratory experiments on the Law of Conservation of Momentum and Newton’s Second Law of Motion, among others. During the conduct of Explosion Experiment, the Dynamic Carts A and B should reach the end of the one (1) meter rails at the same time.
19	DYNAMIC CART B – WITH COUNTERWEIGHT	<ul style="list-style-type: none"> a. In the evaluation of sample, the technical specifications, as part of the Contract, will be used as reference. However, in the pre-delivery inspection, it will be the approved sample that will be used as reference. b. To determine the conformity of the plastic materials to the technical specifications, the materials should be tested by DOST material testing facilities or at any DOST-accredited testing institution. Test certificate/s should be issued by the testing unit, the original copy should be submitted to BLR-Cebu to validate the specified materials. A representative of the Procuring Entity should be present during preparation and submission of the material test specimens to testing facility. All expenses for the said test shall be shouldered by the Supplier. There must be no breakage, chipped edges, sharp edges, cracks, scratches, and other deficiencies/defects on the item. (c) Do material evaluation of the non-plastic parts. On the Individual Parts: (d) Do dimensional inspection of the individual parts. Measure lengths, widths, depths, diameters, holes, distances between holes, threads, etc. (e) Inspect the surface finish of individual parts. Material colors specified in the technical specifications must be followed. (f) Check the verticality or uprightness of the sides, front face, and rear face of the cart body when this is laid flat on a horizontally-level table surface. Check, also, the horizontality of the holes as well as their alignment and parallelism with respect to each other. On the Assembly: (g) Do dimensional inspection of the assembly. Measure length, width, height, gaps between assembled parts, distances between wheels, etc. (h) There must be no breakage, cracks, chipped edges, sharp edges, scratches, warping, and other deficiencies/defects on

		<p>the assembly.</p> <ul style="list-style-type: none"> (i) Inspect the linear clearances between the axle shafts and the teflon bearings. (j) Inspect the alignment of the wheels with respect to each other as well as with respect to the rails on which they are to operate. The cart should run smoothly on the rails. (k) Check the verticality or uprightness of the assembly when this is laid flat on a horizontally-level table surface. (l) Check, also, the perpendicularity of the top surface of the assembly with respect to the front face, rear face, and sides. (m) Test run the cart and check the performance of the wheels. (n) Check the weight of the cart. Note: The difference in weight between Cart A (spring-loaded) and Cart B (with counterweight) should not exceed 5 grams. (o) Do functionality test to validate the level of performance and accuracy of the cart especially when this is used as one of the components in conducting laboratory experiments on the Law of Conservation of Momentum and Newton's Second Law of Motion, among others. During the conduct of Explosion Experiment, the Dynamic Carts A and B should reach the end of the one (1) meter rails at the same time.
20	STOPPER-FORK ASSEMBLY	<ul style="list-style-type: none"> (a) In the evaluation of sample, the technical specifications, as part of the Contract, will be used as reference. However, in the pre-delivery inspection, it will be the approved sample that will be used as reference. (b) To determine the conformity of the plastic materials to the technical specifications, the materials should be tested by DOST material testing facilities or at any DOST-accredited testing institution. Test certificate/s should be issued by the testing unit, the original copy should be submitted to BLR-Cebu to validate the specified materials. A representative of the Procuring Entity should be present during preparation and submission of the material test specimens to testing facility. All expenses for the said test shall be shouldered by the Supplier. There must be no breakage, chipped edges, sharp edges, cracks, scratches, and other deficiencies/defects on the item. (c) Do material evaluation of the non-plastic parts. <p>On the Individual Parts:</p> <ul style="list-style-type: none"> (d) Do dimensional inspection of the individual parts. Measure lengths, widths, depths, diameters, holes, distances between holes, threads, etc. (e) Inspect the surface finish of individual parts. Material colors specified in the technical specifications must be followed. (f) Inspect the wheel, to include the concentricity of its outside diameter to its center hole, the parallelism of its faces, and the perpendicularity of its center hole with respect to the said faces. (g) There must be no breakage, chipped edges, sharp edges, cracks, scratches, warping, and other deficiencies/defects on the individual parts. <p>On the Assembly:</p> <ul style="list-style-type: none"> (h) Check the horizontality and verticality of the stopper-fork when this is laid flat on a horizontally-level table surface.

		<ul style="list-style-type: none"> (i) Check the performance of the Wheel by having it rotate freely without load and having it rotate with load. The wheel must turn and run smoothly. (j) Do functionality test to validate the level of performance and accuracy of the Stopper-Fork Assembly especially when used as component of the Cart-Rail System.
21	3-GRAM DRIVING MASS	<ul style="list-style-type: none"> (a) In the evaluation of sample, the technical specifications, as part of the Contract, will be used as reference. However, in the pre-delivery inspection, it will be the approved sample that will be used as reference. (b) There must be no sharp edges, cracks, scratches, and other deficiencies/defects on the item. (c) Do dimensional inspection. Measure the outside and inside diameters, the thickness, the slit, and the eccentricity of the inside diameter to the outside diameter of the item. (d) Do material evaluation. (e) Inspect the weight to know its conformity to the technical specifications. (f) Test the item's level of performance and accuracy by using it as component of the Cart-Rail System in performing laboratory experiment on the Law of Conservation of Momentum and Newton's 2nd Law of Motion, among others.
22	50-GRAM CYLINDRICAL MASS	<ul style="list-style-type: none"> (a) In the evaluation of sample, the technical specifications, as part of the Contract, will be used as reference. However, in the pre-delivery inspection, it will be the approved sample that will be used as reference. (b) There must be no sharp edges, cracks, scratches, and other deficiencies/defects on the item. (c) Do dimensional inspection. Measure the outside and inside diameters and the thickness. (d) Do material evaluation. (e) Inspect the weight to know its conformity to the technical specifications. (f) Test the item's level of performance and accuracy by using it as component of the Cart-Rail System in performing laboratory experiment on the Law of Conservation of Momentum and Newton's 2nd Law of Motion, among others.
23	PLASTIC HAMMER	<ul style="list-style-type: none"> (a) In the evaluation of sample, the technical specifications, as part of the Contract, will be used as reference. However, in the pre-delivery inspection, it will be the approved sample that will be used as reference. (b) To determine the conformity of the plastic material to the technical specifications, the material should be tested by DOST material testing facilities or at any DOST-accredited testing institution. Test certificate should be issued by the testing unit, the original copy should be submitted to BLR-Cebu to validate the specified material. A representative of the Procuring Entity should be present during preparation and submission of the material test specimen to testing facility. All expenses for the said test shall be shouldered by the Supplier. There must be no breakage, chipped edges, sharp edges, cracks, scratches, and other deficiencies/defects

		<p>on the item.</p> <p>(c) Do dimensional inspection. Measure diameters, length, radius, etc.</p> <p>(d) Check the surface finish. The color of the material should conform to what is specified in the technical specifications.</p> <p>(e) Test the item's level of performance and accuracy by using it as component of the Cart-Rail System in performing laboratory experiment on the Law of Conservation of Momentum as well as in conducting experiment on Explosion.</p>
24	MOTORIZED CART	<p>(a) In the evaluation of sample, the technical specifications, as part of the Contract, will be used as reference. However, in the pre-delivery inspection, it will be the approved sample that will be used as reference.</p> <p>(b) To determine the conformity of the plastic materials to the technical specifications, the material should be tested by DOST material testing facilities or at any DOST-accredited testing institution. Test certificate should be issued by the testing unit, the original copy should be submitted to BLR-Cebu to validate the specified material. A representative of the Procuring Entity should be present during preparation and submission of the material test specimens to testing facility. All expenses for the said test shall be shouldered by the Supplier. There must be no breakage, chipped edges, sharp edges, cracks, scratches, and other deficiencies/defects on the item.</p> <p>(c) Do material evaluation of the non-plastic parts.</p> <p>On the Individual Parts:</p> <p>(d) Do dimensional inspection of the individual parts. Measure lengths, widths, depths, diameters, holes, distances between holes, threads, etc.</p> <p>(e) Inspect and test the item's DC motor, taking into consideration the required rated revolution per minute (rpm) as specified in the technical specifications.</p> <p>(f) Inspect the surface finish of individual parts. Material colors specified in the technical specifications must be followed.</p> <p>(g) There must be no breakage, chipped edges, sharp edges, cracks, scratches, warping, and other deficiencies/defects on the individual parts.</p> <p>(h) Check the verticality or uprightness of the sides, front face, and rear face of the chassis when this is laid flat on a horizontally-level table surface. Check, also, the horizontality of the holes (that are intended for the wheels) as well as their alignment and parallelism with respect to each other.</p> <p>On the Assembly:</p> <p>(i) Do dimensional inspection of the assembly. Measure length, width, height, gaps between assembled parts, distances between wheels, center distances of mating gears, etc.</p> <p>(j) There must be no breakage, cracks, chipped edges, sharp edges, scratches, warping, and other deficiencies/defects on the assembly.</p> <p>(k) After providing a 1.5 volt (size AA) dry cell, switch on the</p>

		<p>cart and conduct a test run.</p> <p>(l) Inspect the performance of the mating gears and worm during the test run. Check on the noise they produced.</p> <p>(m) Inspect the performance of the motor during the test run and check on the sound the motor produced. Check its connecting wires and how the connections are done.</p> <p>(n) Inspect the performance of the couplings (that coupled the motor to the worm) during test run and check on the noise they produced.</p> <p>(o) Check the performance of the wheels during test run particularly their alignment with each other as well as their alignment with the rails on which they are operating.</p> <p>(p) Check the dry cell casing and its cover, to include the connecting wires and how the connections are done.</p> <p>(q) Determine the level of performance of the cart by conducting an experiment on constant velocity. It should run smoothly on the rails. Check the velocity of the cart as it moves from one end of the rail to the other end. The motorized cart should travel smoothly on the rails with uniform travel time at equal distances.</p>
25	HOSE LEVEL, 3 METER	<p>(a) In the evaluation of sample, the technical specifications, as part of the Contract, will be used as reference. However, in the pre-delivery inspection, it will be the approved sample that will be used as reference.</p> <p>(b) Do dimensional inspection. Measure the length, outside diameter, and inside diameter.</p> <p>(c) Inspect the transparent plastic material.</p> <p>(d) There must be no cracks, scratches, chipped edges, and other deficiencies/defects.</p> <p>(e) Do functionality test to validate the level of performance of the hose especially when used in determining whether the two (2) stand bases are horizontally level during experiment on momentum, acceleration, and inertia within the realm of the Cart-Rail System.</p>
26	SOLENOID ASSEMBLY	<p>(a) In the evaluation of sample, the technical specifications, as part of the Contract, will be used as reference. However, in the pre-delivery inspection, it will be the approved sample that will be used as reference.</p> <p>(b) To determine the conformity of the plastic material to the technical specifications, a certificate from DOST, which would attest to the said conformity, is required for the Supplier to submit. <i>(Note: A representative of the Procuring Entity should be present during preparation and submission of the material test specimen to DOST. All expenses for the said test shall be shouldered by the Supplier.)</i></p> <p>On the Individual Parts:</p> <p>(c) Do dimensional inspection of the individual parts. Measure lengths, widths, depths, diameters, holes, distances between holes, threads, etc.</p> <p>(d) Inspect the surface finish of individual parts. Material color/s specified in the technical specifications must be followed.</p> <p>(e) Inspect the outer frame. Check the perpendicularity and parallelism of the walls with respect to each other. Check</p>

		<p>the holes intended for the rivets, their diameters, the distances between them, and their conformance to the technical specifications/approved sample. Check the punched “DepED-BLR” marker.</p> <p>(f) Inspect the inner frame. Check the hole intended for the Core Shaft, its diameter, and its concentricity. Check the perpendicularity of the said hole with respect to the end faces. Check the holes intended for the rivets, their diameters, the distances between them, and their conformance to the technical specifications/approved sample.</p> <p>(g) There must be no breakage, chipped edges, sharp edges, cracks, scratches, warping, and other deficiencies/defects on the individual parts.</p> <p>On the Assembly:</p> <p>(h) Inspect the windings of the Solenoid. It should be # 22 AWG Magnet Wire (600 +/- 5 windings) with wax paper cover. Check the magnetic holding capacity of the Solenoid. Note: The Solenoid must have a magnetic holding capacity of 250 grams (minimum) using a zinc-plated mass as test specimen. During the test, make sure that the battery or dry cell in the Synchro Box is new.</p> <p>(i) There must be no breakage, chipped edges, sharp edges, cracks, scratches, warping, and other deficiencies/defects on the assembly.</p> <p>(j) Check the perpendicularity of the outer frame with respect to the extension rod.</p> <p>(k) Inspect the binding posts and their fixations on the outer frame.</p> <p>(l) Check the wires that connect the binding posts to the Solenoid. Check the continuity of the said wires.</p> <p>(m) Inspect the fixation of the individual parts of the assembly.</p> <p>(n) Do functionality test to validate the level of performance and accuracy of the Solenoid Assembly by using it as component of the Free-Fall Apparatus in conducting experiment on free fall.</p>
27	PAD SWITCH ASSEMBLY	<p>a. In the evaluation of sample, the technical specifications, as part of the Contract, will be used as reference. However, in the pre-delivery inspection, it will be the approved sample that will be used as reference.</p> <p>b. To determine the conformity of the plastic material to the technical specifications, a certificate from DOST, which would attest to the said conformity, is required for the Supplier to submit. <i>(Note: A representative of the Procuring Entity should be present during preparation and submission of the material test specimen to DOST. All expenses for the said test shall be shouldered by the Supplier.)</i></p> <p>On the Individual Parts:</p> <p>(a) Do dimensional inspection of the individual parts. Measure lengths, widths, depths, diameters, holes, distances between holes, threads, etc.</p> <p>(b) Inspect the surface finish of the individual parts.</p> <p>(c) There must be no breakage, chipped edges, sharp edges, cracks, scratches, and other deficiencies on the individual</p>

		<p>parts.</p> <p>(d) Inspect the Handle Shaft and the Spindle. Check the holes, their diameters, locations, and concentricity. Check the threaded holes. Check the perpendicularity and/or parallelism of the holes with respect to each other and with respect to the shaft/spindle.</p> <p>(e) Inspect the Landing Pad. Check the width, length, and thickness. Check the rivet holes, their diameters, and locations. Check the concentricity and alignment of the holes intended for the spindle. Check the punched “DepED-BLR” marker. Check the horizontality/flatness of the pad.</p> <p>On the Assembly:</p> <p>a. Inspect the fixations of the individual parts of the assembly.</p> <p>b. There must be no breakage, chipped edges, sharp edges, cracks, scratches, and other deficiencies on the assembly.</p> <p>c. Check the perpendicularity of the spindle with respect to the handle shaft.</p> <p>d. Check the magnet and its capacity to hold the landing pad in place.</p> <p>e. Do functionality test to validate the level of performance and accuracy of the Pad Switch Assembly by using it as component of the Free-Fall Apparatus in conducting experiment on free fall.</p>
28	SYNCHRO BOX ASSEMBLY	<p>(a) In the evaluation of sample, the technical specifications, as part of the Contract, will be used as reference. However, in the pre-delivery inspection, it will be the approved sample that will be used as reference.</p> <p>(b) To determine the conformity of the plastic materials to the technical specifications, a certificate from DOST, which would attest to the said conformity, is required for the Supplier to submit. <i>(Note: A representative of the Procuring Entity should be present during preparation and submission of the material test specimen to DOST. All expenses for the said test shall be shouldered by the Supplier.)</i></p> <p>On the Individual Parts:</p> <p>(c) Do dimensional inspection of the individual parts. Measure lengths, widths, depths, diameters, holes, distances between holes, threads, etc.</p> <p>(d) Inspect the surface finish of individual parts. Material color/s specified in the technical specifications must be followed.</p> <p>(e) There must be no breakage, chipped edges, sharp edges, cracks, scratches, warping, and other deficiencies/defects on the individual parts.</p> <p>(f) Inspect the (Main) Body. Check for perpendicularity, parallelism, and contours of the walls. Check the embossed dry cell outline marker as well as the embossed positive (+) and negative (-) sign markers. Inspect the counterbore holes, their diameters, and locations. Check the threaded holes. Check the 0.5mm-deep holes/cuts intended for the rubber soles. Check the provision for a snap-on locking system.</p> <p>(g) Inspect Cover A. Check for perpendicularity, parallelism,</p>

		<p>and contours of the walls. Check the embossed “DepED-BLR”, “Stopwatch”, Pad Switch”, and “Solenoid” markers. Inspect the counterbore hole intended for the push button switch. Check the threaded holes.</p> <p>(h) Inspect Cover B. Check for perpendicularity, parallelism, and contours of the walls. Check the embossed “DepED-BLR” marker. Check the provision for a snap-on locking system.</p> <p>(i) Inspect the battery/dry cell holders, both positive (+) and negative (-).</p> <p>(j) Inspect the rubber soles, wire holders, terminal strip, transistor (semiconductor), resistor, push button switch, and hook-up wire.</p> <p>(k) Inspect the stopwatch connector (with RCA plug), pad switch connector (with Y-terminal lugs), and solenoid connector (with needle probe terminal rods).</p> <p>On the Assembly:</p> <p>(l) With the use of the Circuit Schematic Diagram as reference, inspect the electronic circuit of the assembly.</p> <p>(m) Inspect the fixations and/or connections of the individual parts of the assembly.</p> <p>(n) There must be no breakage, chipped edges, sharp edges, cracks, scratches, warping, and other deficiencies/defects on the assembly.</p> <p>(o) Inspect the continuity of the wire connectors.</p> <p>(p) Inspect/test the snap-on locking system (for the body and Cover B)</p> <p>(q) Do functionality test to validate the level of performance and accuracy of the Synchro Box Assembly by using it as component of the Free-Fall Apparatus in conducting experiment on free fall.</p>
29	DIGITAL TIMER ASSEMBLY	<p>(a) In the evaluation of sample, the technical specifications, as part of the Contract, will be used as reference. However, in the pre-delivery inspection, it will be the approved sample that will be used as reference.</p> <p>(b) Do dimensional inspection of the electronic digital stopwatch and the female electronic jack (RCA jack).</p> <p>(c) There must be no breakage, chipped edges, sharp edges, cracks, scratches, and other deficiencies on the assembly.</p> <p>(d) Open the back cover of the stopwatch and using the Schematic Wiring Diagram as reference, inspect how the wiring (inside the stopwatch) is done. Check, also, the type (or kind) of wire used.</p> <p>(e) Do functionality test to validate the level of performance and accuracy of the Digital Timer Assembly by using it as component of the Free-Fall Apparatus in conducting experiment on free fall.</p>
30	PLASTIC SPHERICAL BALL WITH STEEL SCREW	<p>(a) In the evaluation of sample, the technical specifications, as part of the Contract, will be used as reference. However, in the pre-delivery inspection, it will be the approved sample that will be used as reference.</p> <p>(b) There must be no cracks, scratches, dents, and other deficiencies/defects on the item.</p> <p>(c) Do dimensional inspection. Measure the diameter of the plastic ball as well as the diameter of the hole intended for</p>

		<p>the steel screw.</p> <p>(d) Inspect the steel screw. It must be new and rust-free.</p> <p>(e) Inspect the surface finish. The color of the plastic ball should conform to what is specified in the technical specifications.</p> <p>(f) Check the weight (of the plastic ball with screw). The weight should conform to what is specified in the technical specifications.</p> <p>(g) Test the level of performance by using it as component of the Free-Fall Apparatus in conducting experiment on free fall.</p>
31-32	STEEL SPHERICAL BALL (chrome-plated)	<p>(a) In the evaluation of sample, the technical specifications, as part of the Contract, will be used as reference. However, in the pre-delivery inspection, it will be the approved sample that will be used as reference.</p> <p>(b) There must be no cracks, scratches, dents, and other deficiencies/defects on the item.</p> <p>(c) Do dimensional inspection. Measure the diameter of the chrome-plated steel ball.</p> <p>(d) Check the weight. The weight should conform to what is specified in the technical specifications.</p> <p>(e) Inspect the surface finish.</p> <p>(f) Test the level of performance by using it as component of the Free-Fall Apparatus in conducting experiment on free fall.</p>
33	BALL CASE WITH COVER	<p>(a) In the evaluation of sample, the technical specifications, as part of the Contract, will be used as reference. However, in the pre-delivery inspection, it will be the approved sample that will be used as reference.</p> <p>(b) To determine the conformity of the plastic material to the technical specifications, a certificate from DOST, which would attest to the said conformity, is required for the Supplier to submit. <i>(Note: A representative of the Procuring Entity should be present during preparation and submission of the material test specimen to DOST. All expenses for the said test shall be shouldered by the Supplier.)</i> There must be no sharp edges, cracks, scratches, warping, chipped edges, breakage, and other deficiencies/defects on the item.</p> <p>(c) Do dimensional inspection of the Case and its Cover. Measure lengths, widths, thicknesses, diameters, radii, depths, draft angles, etc.</p> <p>(d) Check the surface finish. The color of the material should conform to what is specified in the technical specifications. There must be no warping of material.</p> <p>(e) Check the DepED-BLR embossed markers (on the Case and Cover).</p> <p>(f) Check the cushion (soft foam). Measure length, width, and thickness.</p> <p>(g) Do functionality test to validate its level of performance and accuracy by loading the spherical balls intended for it to store.</p>
34a	METER TAPE WITH HOOKS ASSEMBLY	<p>(a) In the evaluation of sample, the technical specifications, as part of the Contract, will be used as reference. However, in</p>

		<p>the pre-delivery inspection, it will be the approved sample that will be used as reference.</p> <p>(b) There must be no sharp edges, chipped edges, cracks, scratches, and other deficiencies/defects on the item.</p> <p>(c) Do dimensional inspection. Measure the lengths, widths, thicknesses, diameters, radii, etc.</p> <p>(d) Inspect the meter tape (or measuring tape). Check the printed numerals, graduations, and printed letters. Inspect the plastic case. (Note: The meter tape should be able to measure in Metric and English units.) Check the accuracy of measurements. Check the maximum measuring capacity of the meter tape.</p> <p>(e) Inspect Hook A and Hook B and their fixations on the meter tape.</p> <p>(f) Inspect the surface finish.</p> <p>(g) Do functionality test to validate the level of performance and accuracy of the Meter Tape with hooks Assembly especially when used as component of the Free-Fall Apparatus in conducting experiment on free fall.</p>
34b	POINTER	<p>(a) In the evaluation of sample, the technical specifications, as part of the Contract, will be used as reference. However, in the pre-delivery inspection, it will be the approved sample that will be used as reference.</p> <p>(b) To determine the conformity of the plastic material to the technical specifications, a certificate from DOST, which would attest to the said conformity, is required for the Supplier to submit. (Note: A representative of the Procuring Entity should be present during preparation and submission of the material test specimen to DOST. All expenses for the said test shall be shouldered by the Supplier.) There must be no sharp edges, cracks, scratches, warping, chipped edges, breakage, and other deficiencies/defects on the item.</p> <p>(h) Do dimensional inspection. Measure the length, width, height, thicknesses, radii, angles, etc.</p> <p>(c) Inspect the surface finish. The color of the material should conform to what is specified in the technical specifications.</p> <p>(i) Do functionality test to validate the level of performance and accuracy of the Pointer especially when used as component of the Free-Fall Apparatus in conducting experiment on free fall.</p>
35a	HOOKE'S LAW APPARATUS (EXTENSION SPRING)	<p>(a) In the evaluation of sample, the technical specifications, as part of the Contract, will be used as reference. However, in the pre-delivery inspection, it will be the approved sample that will be used as reference.</p> <p>(b) There must be no cuts, scratches, and other deficiencies/defects on the spring.</p> <p>(c) Do dimensional inspection. Measure the length, outside diameter, inside diameter, and wire diameter of the spring.</p> <p>(d) Inspect the surface finish.</p> <p>(e) Check the spring's elongation and elasticity by following the instructions specified in the technical specifications.</p> <p>(f) Do functionality test to validate the level of performance of the spring by using it as component of the Hooke's Law Apparatus in conducting experiment on elasticity.</p>

35b	HOOKE'S LAW APPARATUS (DISC POINTER)	<ul style="list-style-type: none"> (a) In the evaluation of sample, the technical specifications, as part of the Contract, will be used as reference. However, in the pre-delivery inspection, it will be the approved sample that will be used as reference. (b) To determine the conformity of the plastic material to the technical specifications, a certificate from DOST, which would attest to the said conformity, is required for the Supplier to submit. <i>(Note: A representative of the Procuring Entity should be present during preparation and submission of the material test specimen to DOST. All expenses for the said test shall be shouldered by the Supplier.)</i> There must be no sharp edges, cracks, scratches, chipped edges, warping, and other deficiencies/defects on the item. (c) Do dimensional inspection. Measure length, thickness, diameters, etc. (d) Check the horizontality/flatness of the disc. Check the perpendicularity of the disc with respect to the stem of the double-eye hook. (e) Inspect the double-eye hook. (f) Check the fixation of the disc on the double-eye hook. (g) Inspect the surface finish. The color of material as specified in the technical specifications must be followed. (g) Do functionality test to validate the level of performance of the disc pointer by using it as component of the Hooke's Law Apparatus in conducting experiment on elasticity.
36a	FRICTION APPARATUS (FRICTION BLOCK)	<ul style="list-style-type: none"> (a) In the evaluation of sample, the technical specifications, as part of the Contract, will be used as reference. However, in the pre-delivery inspection, it will be the approved sample that will be used as reference. (b) Do dimensional inspection. Measure lengths, widths, heights, depths, diameters, thicknesses, angles, etc. (c) There must be no chipped edges, sharp edges, cracks, scratches, and other deficiencies on the item. (d) Check the hardness of the rubber. (e) Check the surface finish of the wood as well as the surface roughness of the rubber and plastic sidings. (f) Check the fillers provided to fill the 4 holes on the wood surface. These fillers should be levelled with respect to the wood surface. (g) Check the stainless steel rods (inserts). (h) Do functionality test to validate the level of performance of the Friction Block by using it in conducting experiment on surface friction.
36b	FRICTION APPARATUS (FRICTION BOARD)	<ul style="list-style-type: none"> (a) In the evaluation of sample, the technical specifications, as part of the Contract, will be used as reference. However, in the pre-delivery inspection, it will be the approved sample that will be used as reference. (b) Do dimensional inspection. Measure lengths, widths, heights, depths, diameters, thicknesses, angles, etc. (c) There must be no breakage, chipped edges, sharp edges, cracks, scratches, and other deficiencies on the item. (d) Check the red upholstery velvet, its surface, and how it is fastened on the plywood. (e) Check the surface finish of the plywood and the direction of

		<p>its grain. The grain direction should be in accordance to what is specified in the technical specifications.</p> <p>(f) Inspect the brass screws and how they are arranged on the sidings to hold the aluminium J-clip.</p> <p>(g) Inspect the aluminium J-Clip and its fixation on the plywood.</p> <p>(h) Check the punched DepED-BLR markers.</p> <p>(i) Do functionality test to validate the level of performance of the Friction Board by using it in conducting experiment on surface friction.</p>
37a	LEVER ASSEMBLY (LEVER BEAM)	<p>(a) In the evaluation of sample, the technical specifications, as part of the Contract, will be used as reference. However, in the pre-delivery inspection, it will be the approved sample that will be used as reference.</p> <p>(b) Do dimensional inspection. Measure length, width, height, hole diameters, distances between holes, thickness, angles, etc.</p> <p>(c) There must be no breakage, chipped edges, sharp edges, cracks, scratches, and other deficiencies on the item.</p> <p>(d) Check the engraved DepED-BLR marker and numbers</p> <p>(e) Inspect the surface finish.</p> <p>(f) Do functionality test to validate the level of performance of the Lever Beam by using it in conducting experiment on lever (as a simple machine).</p>
37b	LEVER ASSEMBLY (AXLE)	<p>(a) In the evaluation of sample, the technical specifications, as part of the Contract, will be used as reference. However, in the pre-delivery inspection, it will be the approved sample that will be used as reference.</p> <p>(b) Do dimensional inspection. Measure length, diameters, gaps, angles, etc.</p> <p>(c) There must be no breakage, chipped edges, sharp edges, cracks, scratches, and other deficiencies on the item.</p> <p>(d) Inspect the surface finish.</p> <p>(e) Do functionality test to validate the level of performance of the axle by using it in conducting experiment on lever (as a simple machine).</p>
38	DOUBLE PULLEY ASSEMBLY (of Pulley System)	<p>(a) In the evaluation of sample, the technical specifications, as part of the Contract, will be used as reference. However, in the pre-delivery inspection, it will be the approved sample that will be used as reference.</p> <p>(b) To determine the conformity of the plastic materials to the technical specifications, a certificate from DOST, which would attest to the said conformity, is required for the Supplier to submit. <i>(Note: A representative of the Procuring Entity should be present during preparation and submission of the material test specimen to DOST. All expenses for the said test shall be shouldered by the Supplier.)</i> The plastic material (of the Big and Small Wheels) is to be subjected to DOST testing to verify and determine compliance with the technical specifications.</p> <p>On the Individual Parts:</p> <p>(c) Do dimensional inspection of the individual parts. Measure lengths, widths, depths, diameters, holes, thicknesses,</p>

		<p>threads, etc.</p> <p>(d) Inspect the surface finish of individual parts. Material color specified in the technical specifications must be followed.</p> <p>(e) Inspect the Big and Small Wheels. Check the concentricity of the outside diameter, groove bottom diameter, and center hole, the parallelism of the wheel faces or walls with respect to each other, and the perpendicularity of the center hole with respect to the said faces or walls.</p> <p>(f) Inspect the long steel bracket. Check the hook ends and their alignment with respect to each other. Check the threaded holes, their parallelism with respect to each other, their locations on the bracket, and their perpendicularity with respect to the bracket. Check the distance between holes. Check the bent portions of the bracket and the distances between bents. Check the punched DepED-BLR marker.</p> <p>(g) Inspect the pulley shafts and the nuts.</p> <p>(h) There must be no breakage, chipped edges, sharp edges, cracks, scratches, warping, twisting, and other deficiencies/defects on the individual parts.</p> <p>On the Assembly:</p> <p>(i) Check the performance of the Wheels by having them rotate freely without load and having them rotate with load. The wheels must turn and run smoothly.</p> <p>(j) There must be no breakage, chipped edges, sharp edges, cracks, scratches, warping, twisting, and other deficiencies/defects on the assembly.</p> <p>(k) Inspect the surface finish of the assembly.</p> <p>(l) Check the perpendicularity of the fixed pulley shafts with respect to the bracket. Check the fixations of the pulley shafts on the bracket.</p> <p>(m) Do functionality test to validate the level of performance and accuracy of the Double Pulley Assembly by using it in conducting experiment on pulley (as a simple machine).</p>
39	SINGLE PULLEY ASSEMBLY (of Pulley System)	<p>(a) In the evaluation of sample, the technical specifications, as part of the Contract, will be used as reference. However, in the pre-delivery inspection, it will be the approved sample that will be used as reference.</p> <p>(b) To determine the conformity of the plastic material to the technical specifications, a certificate from DOST, which would attest to the said conformity, is required for the Supplier to submit. <i>(Note: A representative of the Procuring Entity should be present during preparation and submission of the material test specimen to DOST. All expenses for the said test shall be shouldered by the Supplier.)</i> The plastic material (of the Small Wheel) is to be subjected to DOST testing to verify and determine compliance with the technical specifications.</p> <p>On the Individual Parts:</p> <p>(c) Do dimensional inspection of the individual parts. Measure lengths, widths, depths, diameters, holes, thicknesses, threads, etc.</p> <p>(d) Inspect the surface finish of individual parts. Material color specified in the technical specifications must be followed.</p> <p>(e) Inspect the Small Wheel. Check the concentricity of the outside diameter, groove bottom diameter, and center hole,</p>

		<p>the parallelism of the wheel faces or walls with respect to each other, and the perpendicularity of the center hole with respect to the said faces or walls.</p> <p>(f) Inspect the short steel bracket. Check the hook ends and their alignment with respect to each other. Check the threaded hole, its location on the bracket, and its perpendicularity with respect to the bracket. Check the bent portions of the bracket and the distance between bents. Check the punched DepED-BLR marker.</p> <p>(g) Inspect the pulley shaft and the nut.</p> <p>(h) There must be no breakage, chipped edges, sharp edges, cracks, scratches, warping, twisting, and other deficiencies/defects on the individual parts.</p> <p>On the Assembly:</p> <p>(i) Check the performance of the Wheel by having it rotate freely without load and having it rotate with load. The wheel must turn and run smoothly.</p> <p>(j) There must be no breakage, chipped edges, sharp edges, cracks, scratches, warping, twisting, and other deficiencies/defects on the assembly.</p> <p>(k) Inspect the surface finish of the assembly.</p> <p>(n) Check the perpendicularity of the fixed pulley shaft with respect to the bracket. Check the fixation of the pulley shaft on the bracket.</p> <p>(l) Do functionality test to validate the level of performance and accuracy of the Single Pulley Assembly by using it in conducting experiment on pulley (as a simple machine).</p>
40-42	SPRING BALANCE (10N / 5N / 2N)	<p>(a) In the evaluation of sample, the technical specifications, as part of the Contract, will be used as reference. However, in the pre-delivery inspection, it will be the approved sample that will be used as reference.</p> <p>(b) To determine the conformity of the plastic materials to the technical specifications, a certificate from DOST, which would attest to the said conformity, is required for the Supplier to submit. <i>(Note: A representative of the Procuring Entity should be present during preparation and submission of the material test specimens to DOST. All expenses for the said test shall be shouldered by the Supplier.)</i></p> <p>On the Individual Parts:</p> <p>(c) Do dimensional inspection of the individual parts. Measure lengths, widths, heights, depths, diameters, holes, thicknesses, threads, etc.</p> <p>(d) Inspect the surface finish of individual parts. Material color specified in the technical specifications must be followed.</p> <p>(e) There must be no breakage, chipped edges, sharp edges, cracks, scratches, warping, twisting, and other deficiencies/defects on the individual parts.</p> <p>(f) Inspect the outer tube. Check the straightness of the tube. Check the concentricity of the outside diameter and inside diameter. Inspect the printed description (marker) on the outer surface of the tube. Check the threads and their lengths.</p> <p>(g) Inspect the top cover. Check the outside thread, inside thread, and the thread lengths.</p>

		<p>(h) Inspect the stopper. Check the concentricity of the outside diameter and inside diameter. Check the thread and its length. The material (of the stopper) should be transparent (clear).</p> <p>(i) Inspect the inner tube. Check the concentricity of the outside diameter and inside diameter. Check the flared end (where the rim was curved outward) of the tube.</p> <p>(j) Inspect the extension spring. Check the outside diameter, wire diameter, pitch, and length. Check the material. The material should conform to what is specified in the technical specifications.</p> <p>(k) Inspect the spring and hook adaptor. Check the outside thread, inside thread, and their lengths.</p> <p>(l) Inspect the hook. Check the alignment of the center of the curved end to the stem.</p> <p>On the Assembly:</p> <p>(m) There must be no breakage, chipped edges, sharp edges, cracks, scratches, warping, twisting, and other deficiencies/defects on the assembly.</p> <p>(n) Inspect the surface finish of the assembly.</p> <p>(o) Inspect the calibration (graduation) sticker. Inspect the printed numbers, letters, and graduation lines. Check the color/s. Check the surface finish of the sticker. Check the accuracy of the graduations using a force gauge.</p> <p>(p) Check the fixations of the individual parts of the assembly.</p> <p>(q) Do functionality test to validate the level of performance and accuracy of the Spring Balance by using it in conducting experiment on force.</p>
43	C-CLAMP WITH HOOK	<p>(a) In the evaluation of sample, the technical specifications, as part of the Contract, will be used as reference. However, in the pre-delivery inspection, it will be the approved sample that will be used as reference.</p> <p>(b) There must be no sharp edges, cracks, scratches, chipped edges, breakage, and other defects on the item.</p> <p>(c) Do dimensional inspection. Measure lengths, diameters, thicknesses, depths, angles, etc.</p> <p>(d) Inspect the surface finish. The material/s specified in the technical specifications should be followed.</p> <p>(e) Inspect the alignment of the Set Screw to the Swivel Hook.</p> <p>(f) Inspect the embossed DepED-BLR marker.</p> <p>(m) Inspect the swivel hook. Check the alignment of the center of the curved end to the stem. See to it that the swivel hook can rotate 360° around its axis.</p> <p>(g) Do functionality test to validate the level of performance and accuracy of the C-Clamp with hook by using it as hanger in performing experiments on force and projectile motion, among others.</p>
44-46	HOOKED MASS (500-gram / 250-gram / 20-gram)	<p>(a) In the evaluation of sample, the technical specifications, as part of the Contract, will be used as reference. However, in the pre-delivery inspection, it will be the approved sample that will be used as reference.</p> <p>(b) There must be no sharp edges, cracks, scratches, chipped edges, breakage, and other defects on the item.</p>

		<ul style="list-style-type: none"> (c) Do dimensional inspection. Measure lengths, diameters, thicknesses, depths, angles, etc. (d) Inspect the surface finish. The material/s specified in the technical specifications should be followed. (e) Inspect the main body (mass). Check the concentricity of its outside diameter/s and inside (threaded) hole. (f) Check the slot at the lower portion of the main body (mass) and its location. (g) Inspect the hook. Check the alignment of the center of the curved end to the stem. (h) Inspect the fixation of the hook on the main body (mass). (i) Inspect the pin and its location. The axis of the pin should intersect and be perpendicular to the axis of the main body (mass). Check the pin's fixation on the main body (mass). (j) Check the weight/mass. Note: The accuracy of the weight/mass is very important. For the 500-gram Mass, the tolerance is +/- 5 grams. For the 250-gram Mass, the tolerance is +/- 2.5 grams. For the 20-gram Mass, the tolerance is +/- 0.4 gram. (k) Do functionality test to validate the level of performance and accuracy of the Hooked Mass by using it in performing experiments on lever and pulley (as simple machines), among others.
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**SCIENCE AND MATHEMATICS EQUIPMENT
(Market Goods but Accessories to Mass Production Goods)
INSPECTION AND TEST PROTOCOL**

Item No.	Item Description	Procedure
56	DRY CELL, 1.5 V, SIZE AA (accessory to the Cart-Rail System)	<ul style="list-style-type: none"> (a) Check compliance of the item with the technical specifications. (b) Do functionality test to validate the level of performance of the item.
57	MODELLING CLAY (accessory to the Cart-Rail System)	<ul style="list-style-type: none"> (a) Check compliance of the item with the technical specifications. (b) Do functionality test to validate the level of performance of the item especially when used as accessory to the Cart-Rail System during laboratory experimentation.
58	STRING, THICK (accessory to the Cart-Rail System)	<ul style="list-style-type: none"> (a) Check compliance of the item with the technical specifications. (b) Do functionality test to validate the level of performance of the item especially when used as accessory to the Cart-Rail System during laboratory experimentation.
59	STRING, THIN (accessory to the Cart-Rail System)	<ul style="list-style-type: none"> (a) Check compliance of the item with the technical specifications. (b) Do functionality test to validate the level of performance of the item especially when used as accessory to the Cart-Rail System during laboratory experimentation.

54	PLASTIC STORAGE BOX (accessory to the Stand Setup)	<ul style="list-style-type: none"> (a) Check compliance of the item with the technical specifications. (b) Do dimensional inspection. Measure lengths, widths, thicknesses, radii, depths, draft angles, heights, etc. (c) Check the surface finish. The color of the material should conform to what is specified in the technical specifications. There must be no warping of material. (d) There must be no breakage, chipped edges, sharp edges, scratches, cracks, and other defects on the item.
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LOT 2

Item No.	Item Description	Procedure
1	BLACKBOARD COMPASS	<ul style="list-style-type: none"> (a) In the evaluation of sample, the technical specifications, as part of the Contract, will be used as reference. However, in the pre-delivery inspection, it will be the approved sample that will be used as reference. (b) Do dimensional inspection. Measure lengths, widths, heights, diameters, thicknesses, angles, radii, etc. (c) There must be no breakage, chipped edges, sharp edges, cracks, scratches, and other defects on the item. (d) Check the surface finish. Materials specified in the technical specifications should be followed. (e) Inspect the pivot arm and adjustable arm. Check the screw (with wing nut and washer) that locks the two (2) arms together. (f) Test the unlocking, swinging, and locking of the said two (2) arms. (g) Inspect the pen/chalk holder and its fixation on the adjustable arm. Check the threaded insert of the pen/chalk holder. Check the pen/chalk lock and clip. (h) Inspect the pivot pen and its fixation on the pivot arm. Check the silicon suction cap, (Test the functionality of the said suction cap.) (i) Check the engraved DepED-BLR marker. (j) Do functionality test to validate the level of performance of the Blackboard Compass by using it in drawing circles and arcs on a blackboard or whiteboard.
2	BLACKBOARD PROTRACTOR	<ul style="list-style-type: none"> (a) In the evaluation of sample, the technical specifications, as part of the Contract, will be used as reference. However, in the pre-delivery inspection, it will be the approved sample that will be used as reference. (b) Do dimensional inspection. Measure lengths, widths, heights, diameters thickness, angles, radii, etc. (c) There must be no chipped edges, sharp edges, cracks, scratches, warping, twisting, delamination, and other defects on the item. (d) Check the printed graduation lines, numbers, letters, and DepED-BLR marker. Check the accuracy of the linear and angular graduations. Check the positioning of the numbers with respect to the graduation lines (e) Check the surface finish. Note: The surface must be coated

		<p>with protective gloss varnish. The said varnish must be on top of the printed graduation lines, numbers, letters, and DepED-BLR marker.</p> <p>(f) Inspect the steel handle and its fixation on the protractor.</p> <p>(g) Do functionality test to validate the level of performance of the Blackboard Protractor by using it in drawing and measuring angles and lines on a blackboard or whiteboard.</p>
3	CONVECTION TANK (THERMOCLINE APPARATUS)	<p>(a) In the evaluation of sample, the technical specifications, as part of the Contract, will be used as reference. However, in the pre-delivery inspection, it will be the approved sample that will be used as reference.</p> <p>(b) To determine the conformity of the plastic material to the technical specifications, a certificate from DOST, which would attest to the said conformity, is required for the Supplier to submit. <i>(Note: A representative of the Procuring Entity should be present during preparation and submission of the material test specimen to DOST. All expenses for the said test shall be shouldered by the Supplier.)</i> There must be no sharp edges, cracks, scratches, warping, chipped edges, breakage, and other deficiencies/defects on the item.</p> <p>(c) Do dimensional inspection. Measure the length, width, height, thickness, width of slit, etc.</p> <p>(d) Check the perpendicularity of the sides/walls with respect to each other. Check the parallelism of the sides/walls. Check the uprightness (verticality) of the sides/walls when the item is laid flat on a horizontally level table surface.</p> <p>(e) Inspect the surface finish. The material should conform to what is specified in the technical specifications. The material should be transparent and clear.</p> <p>(f) Do leak test. Fill the tank with water and check for leaks. Let the tank, which is filled with water, remain for at least 4 hours and then, check for any occurrence of leak/s.</p> <p>(g) Do functionality test to validate the level of performance and accuracy of the Convection Tank (Thermocline Apparatus) by using it in conducting experiment on heat convection of liquids.</p>
4	HEAT CONDUCTION APPARATUS	<p>(a) In the evaluation of sample, the technical specifications, as part of the Contract, will be used as reference. However, in the pre-delivery inspection, it will be the approved sample that will be used as reference.</p> <p>(b) There must be no sharp edges, cracks, scratches, chipped edges, breakage, and other defects on the item.</p> <p>(c) Do dimensional inspection. Measure lengths, widths, diameters, radii, thicknesses, etc.</p> <p>(d) Inspect the surface finish. Check the materials. The materials should conform to what is specified in the technical specifications.</p> <p>(e) Inspect the five (5) test plates and their arrangement on the assembly. Check the punched description markers (Mild Steel, Copper, Aluminum, Stainless Steel, and Brass).</p> <p>(f) Check the Heating Ring and its holes.</p> <p>(g) Check the Handle.</p> <p>(h) Do functionality test to validate the level of performance and accuracy of the Heat Conduction Apparatus by using it</p>

		in conducting experiment on heat conduction of metals
5	LIGHT SOURCE	<p>(a) In the evaluation of sample, the technical specifications, as part of the Contract, will be used as reference. However, in the pre-delivery inspection, it will be the approved sample that will be used as reference.</p> <p>(b) Do dimensional inspection. Measure lengths, widths, heights, diameters, thicknesses, angles, radii, etc.</p> <p>(c) There must be no breakage, chipped edges, sharp edges, cracks, scratches, and other defects on the item.</p> <p>(d) Check the surface finish. Materials specified in the technical specifications should be followed.</p> <p>(e) Inspect the bulb, its voltage rating, and wattage.</p> <p>(f) Inspect the binding posts and their connections. Check the color/s of the binding posts.</p> <p>(g) Inspect the switch and its connection.</p> <p>(h) Inspect the bulb socket and its connection.</p> <p>(i) Inspect the insulator board.</p> <p>(j) Check the embossed DepED-BLR markers.</p> <p>(k) Do functionality test to validate the performance and accuracy of the Light Source by using it in conducting experiment on diffraction of light.</p>
6	SET OF COILS (TRANSFORMER)	<p>(a) In the evaluation of sample, the technical specifications, as part of the Contract, will be used as reference. However, in the pre-delivery inspection, it will be the approved sample that will be used as reference.</p> <p>(b) To determine the conformity of the plastic materials to the technical specifications, the materials should be tested by DOST material testing facilities or at any DOST-accredited testing institution. Test certificate should be issued by the testing unit, the original copy should be submitted to BLR-Cebu to validate the specified material. A representative of the Procuring Entity should be present during preparation and submission of the material test specimens to testing facility. All expenses for the said test shall be shouldered by the Supplier. There must be no breakage, chipped edges, sharp edges, cracks, scratches, warping, and other deficiencies/defects on the item.</p> <p>(c) Do material evaluation of the non-plastic materials.</p> <p>(d) Do dimensional inspection. Measure lengths, widths, depths, heights, thicknesses, diameters, etc.</p> <p>(e) Check the surface finish.</p> <p>(f) Inspect the windings in the primary and secondary sides.</p> <p>(g) Inspect the magnet wire size of both primary and secondary windings.</p> <p>(h) Inspect the core dimensions</p> <p>(i) Inspect the step-up voltages.</p> <p>(j) Inspect the step-down voltages.</p> <p>(k) Inspect the banana plugs and their colors</p> <p>(l) Inspect the bobbin material and dimensions.</p> <p>(m) Inspect the label of the number of turns.</p> <p>(n) Inspect the printed warning sticker that says “Do not operate more than 6 volts”</p> <p>(o) Inspect the connected banana plug at the C-core.</p> <p>(p) Inspect the rivets and how they are fixed..</p>

		<p>(q) Inspect the insulator tape of coils and its color</p> <p>(r) Inspect the continuity of the windings.</p> <p>(s) Do functionality test to validate the level of performance and accuracy of the Set of Coils and check the voltage output of the AC side only: a) Step-up setting from 1.5 to 12 volts; and b) Step-down setting from 1.5 to 12 volts. AC output voltage must be at least 80 % efficient.</p> <p>Note: See attached Step Up & Step Down Diagrams & their Tolerance Values</p>
7	TRIPOD	<p>(a) In the evaluation of sample, the technical specifications, as part of the Contract, will be used as reference. However, in the pre-delivery inspection, it will be the approved sample that will be used as reference.</p> <p>(b) Do dimensional inspection. Measure lengths, angles, diameters, thicknesses, depths, etc.</p> <p>(c) Do material evaluation.</p> <p>(d) Inspect the surface finish.</p> <p>(e) Check how the legs are fixed on the rim/ring.</p> <p>(f) Inspect the linear and angular distances between legs. (Note: The 3 legs must be 120 degrees apart)</p> <p>(g) Inspect the fittings of the rubber footings to the legs.</p> <p>(h) Do functionality test to validate the item's level of performance and accuracy by using it in performing laboratory experiment on Heating of Water and Oil to determine boiling points.</p>
8a	VARIABLE POWER SUPPLY	<p>(a) In the evaluation of sample, the technical specifications, as part of the Contract, will be used as reference. However, in the pre-delivery inspection, it will be the approved sample that will be used as reference.</p> <p>(b) There must be no breakage, chipped edges, sharp edges, cracks, scratches, and other defects on the item.</p> <p>(c) Do material evaluation.</p> <p>(d) Do dimensional inspection. Measure lengths, diameters, thicknesses, depths, distances, gaps, clearances, etc.</p> <p>(e) Inspect the surface finish.</p> <p>(f) Inspect the voltage settings in the primary & secondary: (f.1) Inspect the 3 wires out for connection: 0, 220 & 240 volts (f.2) Inspect the 9 wires out for connection: 0, 1.5, 3.0, 4.5, 6.0, 7.5, 9.0, 10.5 & 12 volts</p> <p>(g) Inspect the primary and secondary winding sizes of the magnetic wire.</p> <p>(h) Inspect the magnetic wire sizes of primary and secondary windings.</p> <p>(i) Inspect the solid wire AWG 14 AC / DC binding post connection.</p> <p>(j) Inspect the core dimension</p> <p>(k) Inspect the insulator between transformer base and casing.</p> <p>(l) Inspect the Insulator between aluminum heat sink and siding case.</p> <p>(m) Inspect the terminal lug connected on voltage selector switch.</p> <p>(n) Inspect the bridge diode 35 amperes, 1000 volts with (+)</p>

		<p>positive and (-) negative marks.</p> <ul style="list-style-type: none"> (o) Inspect the thermal switch 65°C, auto reset. (p) Inspect the royal cord. (q) Inspect the main fuse. (r) Inspect the binding post of AC output. (s) Inspect how the binding posts are fixed (t) Inspect the fuse holder. (u) Inspect the vinyl sticker markings and their alignment to the knob pointer. (v) Inspect the stainless steel casing and the Plexiglas (or acrylic) side covers and how they are fixed. (w) Inspect the voltage selector knob and how it is fixed or fastened to the casing. (x) Inspect the wires (one color black) connected from AC side of toggle switch going to binding post. (y) Inspect the fastening bolts of the Plexiglas (or acrylic) side cover/s. (z) Inspect the four (4) corners of stainless steel casing and stainless steel upper cover. See to it that these are properly fixed together, no gaps (closed). (aa) Inspect the binding post spacers and how they are installed. (bb) Inspect the AC / DC sign output which should be hot stamped with 0.3 mm deep and painted with green color.. (cc) Inspect the Main switch lighting indicator. (dd) Inspect the Toggle switch 15 Amperes, 250 VAC, with heat resistance housing. (ee) Inspect the 10K resistor parallel to the 1000 Uf, 25 Volts capacitor, connected to the bridge diode. (ff) Inspect the connecting wires that are connected to the transformer terminal going to the voltage selector. (gg) Do functionality test to validate the level of performance and accuracy of the Variable Power Supply, as follows: <ul style="list-style-type: none"> 1. Check the voltage output both AC and DC by plugging in the unit to the 220/240 volts power source and measure the output voltages from 1.5 to 12 volts using analog or digital multi-meter 2. Check the temperature rating of thermal sensor by plugging in the unit to the 220/240 volts power source and measure the temperature using infrared temperature meter. 3. Check the load capacity of the unit by loading a 150 watts, 12 volts D.C. halogen bulb for four (4) hours for endurance test. The thermal switch should activate once the unit temperature reaches 70 degrees centigrade by shutting off the power source to prevent damage 4. The thermal switch should activate at 55 to 75 degrees centigrade temperature by cutting off the power source
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		<p>and shutting down the unit</p> <p>5. The unit will be rejected if the thermal switch will not activate at the temperature of 75 degrees centigrade.</p> <p>6. Check the reset timer, it should be 3 to 10 minutes after cutting off the power source and shutting down the unit.</p>
8b	TERMINAL BOARD	<p>(a) In the evaluation of sample, the technical specifications, as part of the Contract, will be used as reference. However, in the pre-delivery inspection, it will be the approved sample that will be used as reference.</p> <p>(b) To determine the conformity of the plastic material/s to the technical specifications, the material/s should be tested by DOST material testing facilities or at any DOST-accredited testing institution. Test certificate should be issued by the testing unit, the original copy should be submitted to BLR-Cebu to validate the specified material. A representative of the Procuring Entity should be present during preparation and submission of the material test specimen/s to testing facility. All expenses for the said test shall be shouldered by the Supplier. There must be no breakage, chipped edges, sharp edges, cracks, scratches, warping, and other deficiencies/defects on the item.</p> <p>(c) Do material evaluation of the non-plastic materials.</p> <p>(d) Do dimensional inspection. Measure lengths, widths, depths, heights, thicknesses, diameters, etc.</p> <p>(e) Check the surface finish.</p> <p>(f) Inspect the stainless sheet body.</p> <p>(g) Inspect the Plexiglas (or acrylic) body cover.</p> <p>(h) Inspect the fuse holder</p> <p>(i) Inspect the duplex/speaker wire (with banana plugs connected at the end), its size, and its length.</p> <p>(j) Inspect the AWG #14 solid wire connected at the binding post.</p> <p>(k) Inspect the fuse.</p> <p>(l) Inspect the hot stamped 2 amperes rating near the fuse holder (which should have green color)</p> <p>(m) Inspect the cable gland.</p> <p>(n) Inspect all binding posts, including colors and size and how they are fixed.</p> <p>(o) Do functionality test to validate the level of performance and accuracy of the Terminal Board.</p>
9	WIRE GAUZE	<p>(a) In the evaluation of sample, the technical specifications, as part of the Contract, will be used as reference. However, in the pre-delivery inspection, it will be the approved sample that will be used as reference.</p> <p>(b) Do dimensional inspection. Measure the length, width, wire diameter, and mesh per inch of the item.</p> <p>(c) Do material evaluation.</p> <p>(d) Inspect the jackets and their thickness.</p> <p>(e) See to it that the jackets are properly welded on the four (4) corners of the item.</p> <p>(f) Do functionality test to validate the level of performance of the item especially when used as component of the</p>

		Stand Setup.
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LOT 3

Item No.	Item Description	Procedure
1,2,4,5,6	COLLAPSIBLE STORAGE CABINET for NON-CORROSIVE MATERIALS	<p>(a) In the evaluation of sample, the technical specifications, as part of the Contract, will be used as reference. However, in the pre-delivery inspection, it will be the approved sample that will be used as reference.</p> <p>On the individual parts (when the cabinet is at its collapse state):</p> <p>(b) Conduct visual inspection of the individual parts. The material/s must conform to what is specified in the technical specifications. There must be no deformities, breakage, sharp edges, cracks, chipped edges, scratches, dents, and other defects on the individual parts.</p> <p>(c) Do dimensional inspection of the individual parts. Measure lengths, widths, heights, thicknesses, holes, distances between holes, etc.</p> <p>(d) Check the surface finish. Surface that needs powder coating, as specified in the technical specifications, must be powder-coated.</p> <p>(e) Inspect the doors, the transparent Plexiglass (acrylic), and the rubber linings. Note: There must be no cracks, warping, bending, scratches, and other defects on the transparent Plexiglass (acrylic).</p> <p>(f) Check the door lock and its keys. Check the door handles, detachable shelf supports, and hinges.</p> <p>(g) Inspect the top cover, bottom cover, side covers, back covers, and the shelves. Check the holes for the detachable shelf supports.</p> <p>(h) Check the fittings of the lock posts of the top cover, front base, and rear base to the (square) openings of the side and back covers.</p> <p>(i) Check the bolts and nuts. Check the rivets.</p> <p>(j) Check the welds and their locations. Note: Messy or untidy welds are not acceptable.</p> <p>On the Assembly:</p> <p>(k) The assembled cabinet will be subjected to stress test by moving it sideways, forward, and backward and tilt 30 degrees both ways from the vertical position. During stress test, if the assembled cabinet is found not sturdy and defects are noted, it will be subjected to re-inspection to verify the quality of welded joints, locking rivets, bolts, nuts, and their spacing and determine whether these conform to the technical specifications.</p> <p>(l) Do dimensional inspection of the assembly. Measure the height, width, depth, length, etc.</p> <p>(m) Check the uprightness of the assembly when laid flat on a (horizontal) ground.</p> <p>(n) Check the perpendicularity and/or parallelism of the top cover, bottom cover, side covers, and back covers with</p>

		<p>respect to each other.</p> <ul style="list-style-type: none"> (o) Check the alignment of the holes (for the detachable shelf supports) both vertically and horizontally. (p) Using a spirit level, check the horizontality of the shelves when these are laid to rest on their (detachable) supports in the cabinet. Check, also, the horizontality of the top and bottom covers. (q) There must be no deformities, breakage, sharp edges, cracks, chipped edges, cracks, scratches, dents, and other defects on the assembly. (r) Check for gaps between the assembled parts. (s) Test the opening, closing, swinging, and locking of the doors. Check the performance of the hinges including the performance of the door lock & its keys. (t) Inspect the rivets. Check the bolts and nuts. Check their fixations. (u) Do functionality test to validate the level of performance of the cabinet by placing in it the equipment intended for it to store.
3	STORAGE CABINET for CORROSIVE MATERIALS	<ul style="list-style-type: none"> (a) In the evaluation of sample, the technical specifications, as part of the Contract, will be used as reference. However, in the pre-delivery inspection, it will be the approved sample that will be used as reference. <p>On the individual parts (when the cabinet is at its collapse state):</p> <ul style="list-style-type: none"> (b) Conduct visual inspection of the individual parts. The material/s must conform to what is specified in the technical specifications. There must be no deformities, breakage, sharp edges, cracks, chipped edges, scratches, dents, and other defects on the individual parts. (c) Do dimensional inspection of the individual parts. Measure lengths, widths, heights, thicknesses, holes, distances between holes, etc. (d) Check the surface finish. Check the Stainless Steel material of the top cover, bottom cover, side covers, back cover, door frames, and shelf. (e) Inspect the doors, the transparent Plexiglass (acrylic), and the rubber linings. Note: There must be no cracks, warping, bending, scratches, and other defects on the transparent Plexiglass (acrylic). (f) Check the door lock and its keys. Check the door handles and hinges. (g) Inspect the top cover, bottom cover, side covers, back cover, and the detachable shelf. (h) Check the fittings of the lock posts of the top and bottom covers to the (square) openings of the side covers. (i) Check the bolts and nuts. Check the rivets. (j) Check the welds and their locations. Note: Messy or untidy welds are not acceptable. <p>On the Assembly:</p> <ul style="list-style-type: none"> (k) The assembled cabinet will be subjected to stress test by moving it sideways, forward, and backward and tilt 30 degrees both ways from the vertical position. During stress test, if the assembled cabinet is found not sturdy and defects are noted, it will be subjected to re-inspection to

		<p>verify the quality of welded joints, locking rivets, bolts, nuts, and their spacing and determine whether these conform to the technical specifications.</p> <ul style="list-style-type: none"> (l) Do dimensional inspection of the assembly. Measure the height, width, depth, length, etc. (m) Check the uprightness of the assembly when laid flat on a (horizontal) ground. (n) Check the perpendicularity and/or parallelism of the top cover, bottom cover, side covers, and back cover with respect to each other. (o) Using a spirit level, check the horizontality of the shelf when this is laid to rest on the fixed shelf supports in the cabinet. Check, also, the horizontality of the top and bottom covers. (p) There must be no deformities, breakage, sharp edges, cracks, chipped edges, cracks, scratches, dents, and other defects on the assembly. (q) Check for gaps between the assembled parts. (r) Test the opening, closing, swinging, and locking of the doors. Check the performance of the hinges including the performance of the door lock & its keys. (s) Inspect the rivets. Check the bolts and nuts. Check their fixations. (t) Do functionality test to validate the level of performance of the cabinet by placing in it the chemicals intended for it to store.
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