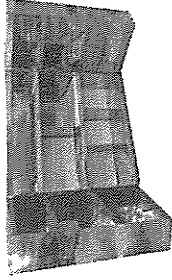

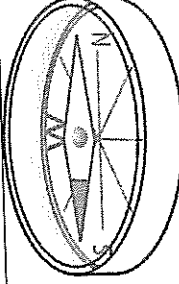
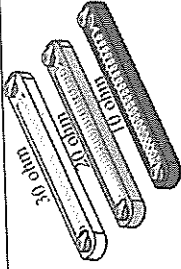
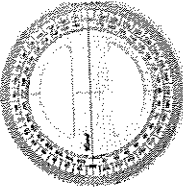
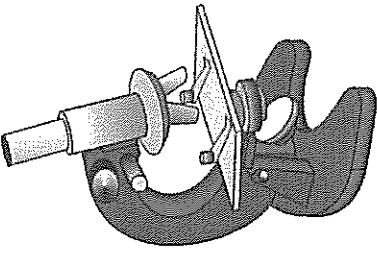

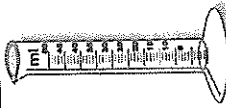
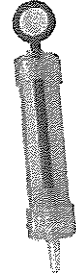
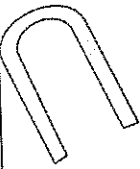
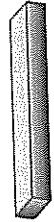
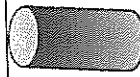

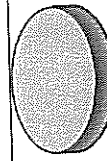
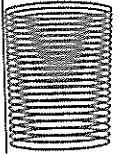
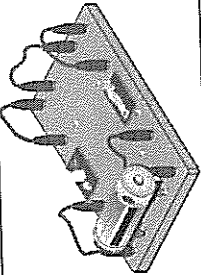
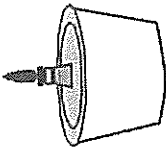

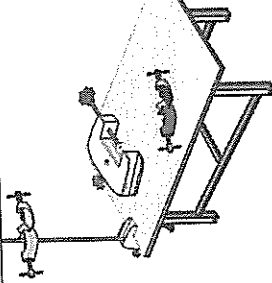
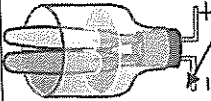
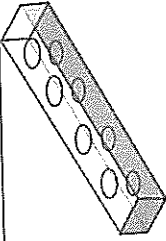

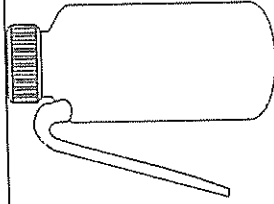

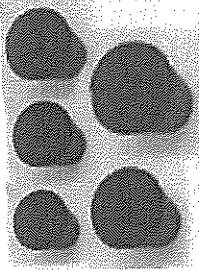


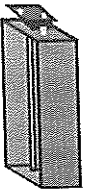

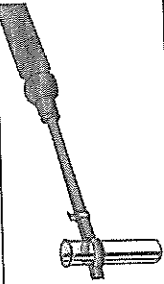







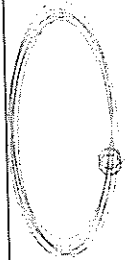

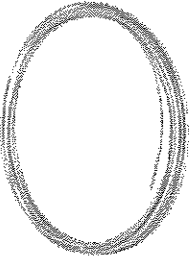
SECONDARY SCIENCE KIT (SSK)

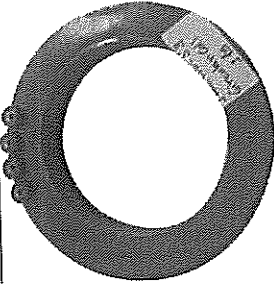

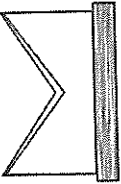

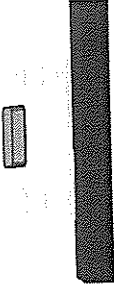

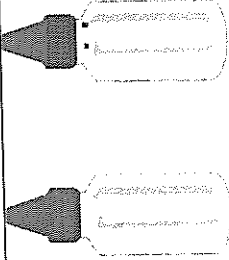
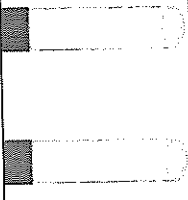

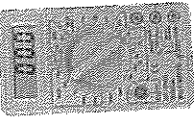
Technical Specification

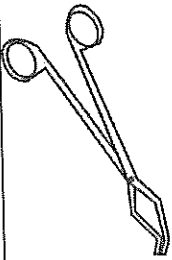


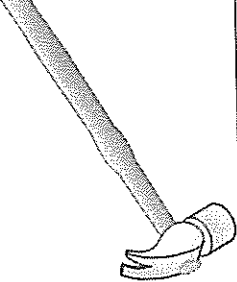
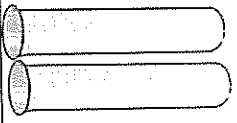
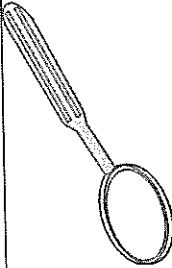
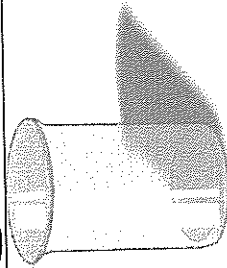


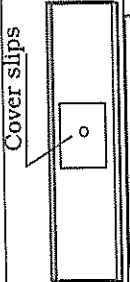


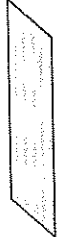
Sl. No.	Name of the Item	Technical Specification	Quantity
1.	Kit manual	Kit manuals may be purchased from sales counter of Publication Division, NCERT, New Delhi. The price of all the kit manuals are ranging Rs.50 to 200/-	1 No.
2.	Kit box with carton 6 ply	<p>Main Body of 26 SWG and partitions of tin sheet. Doors will be fitted 15 mm above the ground level with main body. Right hand door and left hand door should have two racks. The rack partition should have guides (as per sample) The doors should have suitable piano hinges duly spot welded/riveted etc. with main body. Provision for locking system (as per sample) & two folding type handle 6 mm dia for carrying box. Provision for supporting rest for hanging doors to be made as per sample. All over box size 470 × 450 × 280mm box weight should be 5.75 kg. ± .100 kg.</p> <p>As per sample.</p> 	1 No.
3.	Spring balance	 <p>A.B.S., open type, capacity 250 g graduation in steps of 10 g on one side and Newton's on the other side. As per sample.</p>	2 Nos.
4.	Magnetic Compass	 <p>Metal case, polystyrene transparent top, magnetized needle with north marked red and south marked blue, 50 mm size. As per sample.</p>	1 No.
5.	Set of four resistors 10 ohm (1 no), 20 ohm (2 no's.), 30 ohm (1 no)	 <p>15 mm × 15 mm × 125 mm with nichrome wire resistance, embedded in plastic case with terminal. As per sample</p>	1 set

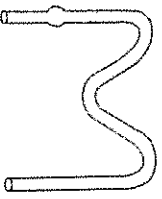

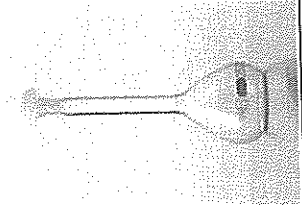
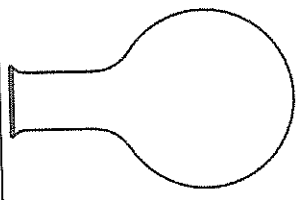


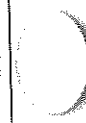


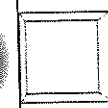

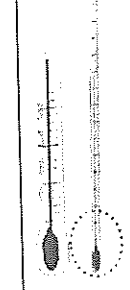
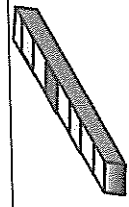
6.	Full Protractor		Transparent plastic dia. 125 mm, approx. thickness 2 mm. Double angle marking 0-360° As per simple	1 No.
7.	Compound Microscope (optional)		ISI marked microscope: Metal Body, overall height approx. 320 mm, base 125 mm x 200 mm. Achromatic good quality lenses. Two Objectives: 10x & 45x. Two Eyepieces: 10x & 15x having coarse fine motion & fixed condenser. As per sample.	1 No.
8.	Tuning Fork		Mild Steel Chapter 06 x 3.4 mm, prongs 110 mm long, frequency 256 Hz. As per simple	1 No.
9.	Measuring cylinder		Plastic, transparent with built in base 100 mL graduation (1mL) As per simple	1 No.
10.	Syringe Pump		Poly carbonate syringe pump over all size with piston 200mm. length and outer Dia. 30mm. As per sample.	1 No.
11.	U-Shape Magnet		Arm length 50 mm, N and S poles to be marked. Alnico As per simple	1 No.
12.	Bar Magnet		Size 75 mm x 12 mm x 8 mm, red colour N and S pole mentioned. Alnico As per simple	1 set
13.	Cylindrical Magnet		Diameter 16 mm and length 25 mm. ferrite As per simple	1 No.
14.	Ring Magnet		Outer diameter 18 mm and thickness 3 mm. ferrite As per simple	1 No.
15.	Disc Magnet		Diameter 36 mm and 8 mm thick. ferrite As per simple	1 No.
16.	Slinky		Steel Wire Spiral roll, outer dia 52 mm and close size 68 mm to 70 mm. As per simple	1 No.

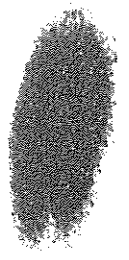
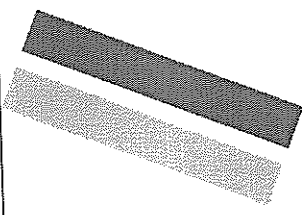
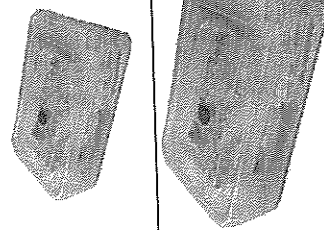



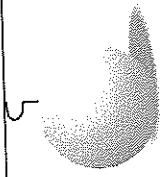
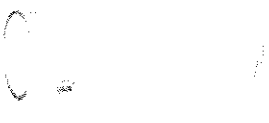
17.	Circuit Board		Complete with plastic base, 190mm x 120mm x 15mm. battery holder, bulb holder with bulb 2.3 V, switch, banana sockets with two spare bulb. As per sample As per sample	1 No.
18.	Spirit Lamp		Steel body along with brass wick holder dia. 65mm, height 50mm As per sample	1 No.
19.	Tripod Stand		Height 100mm cast iron top 7x7x7cm triangle, legs dia. 4mm iron body. As per sample	1 No.
20.	Laboratory Stand 1) Boss head 2) Clamp 3) G clamp		Specifications : MS rod dia 10 mm x 375 mm long, MS base, CI Boss head, G clamp and V-type clamp. As per sample	1 each
21.	Stainless steel electrode with cork		Dia. 2mm. x 80mm stainless steel electrode fitted with cork to sapret. Cork size top dia 25mm. x dia.17 taper x 25mm. length, (to fit with item No. 81 bell jar). As per sample.	1 Set
22.	Test Stand		Acralic Plastic moulded size 100 mm x 27 mm x 20 mm 04 blind holes to hold Micro Test Tubes dia. 10mm depth of hole 15mm. As per sample.	4 Nos.
23.	China Dish		Outer diameter 70mm/75mm. As per sample	1 No.
24.	Wash Bottle		LDPE, capacity 125 mL. good quality As per sample.	1 No.
25.	Forceps		Stainless steel, length 100 mm. As per sample	1 No.
26.	Rubber cork		Standard, armbred, size nos. 2, 3, 4, 5 and 6. As per sample	2 each

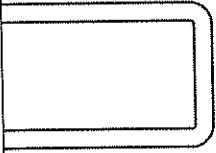
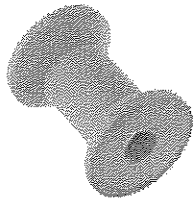
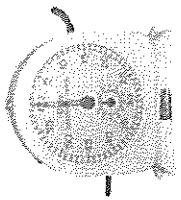

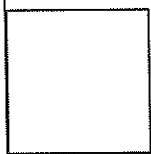
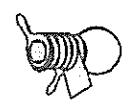




27.	Cell holder		For four R-6 cells, brass-copper terminals [plated], plastic body, 130mm x 70mm x 40mm height with cover. As per sample.	1 No.
28.	Test Tube Brush		Soft hairs. As per sample.	1 No.
29.	Test tube holder		Wooden handle, Length 200 mm, to hold the test tubes upto 10 mm dia, plated. As per sample	1 No.
30.	Plain mirror strip and stand		Good quality, 150mm x 30 x 2mm A small plastic block with slit for hold mirror strip. As per sample	2 each
31.	Copper strip		80mm. x 5mm. x 1mm. As per sample	4 Nos.
32.	Zinc strip		80mm. x 5mm. x 1mm. As per sample	4 Nos.
33.	Iron strip		80mm. x 5mm. x 1mm. As per sample	4 Nos.
34.	Aluminum strip		80mm. x 5mm. x 1mm. As per sample	4 Nos.
35.	Connecting wire with Banana plug		Soft electric wire 200 mm. length both end fitted with banana plug. Two red and two black. As per sample	4 Nos.
36.	Glass Dropper with rubber bulb		Borosilicate glass, length 100 mm, capillary length 20 mm, diameter 06 mm. As per samples.	2 Nos.
37.	Constantan wire		26 SWG 50cm Approx. length As per sample	1 No.
39.	Copper wire		100 cm long, thickness 24 SWG As per sample	1 No.
40.	Nichrome wire		SWG-24-50cm, SWG-26-100cm, SWG-28-50cm As per sample	1 Pc. each length h

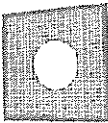

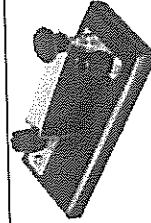




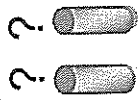
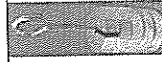
41.	Circular coil		Wooden / Plastic circular case Dia. 150mm inner dia. 100mm with four terminal covering with copper coated Aluminum wire 26 SWG. 0- 100-200-500 turns. As per sample.	1
42.	Steel Ball		Steel Ball with a hook, diameter 18-20 mm.	1
43.	Mirror/Lens stand		Plastic/Wooden mirror stand 120mm x 30mm x 75 mm. Height with slot. As per sample.	1
44.	Micro Spatula		Stainless steel. 100mm. approx length As per sample.	1
45.	Plug Key		One way plug key (Brass), base 80 mm x 55 mm. As per sample.	1
46.	Micro Test Plate/Well plate		Polystyrene (PS), with 96 wells. As per sample.	1
47.	Dispensing Bottle		Low Density Poly Ethylene (LDPE), Capacity 15 mL, with screw type cap and nozzle. As per sample.	30
48.	Vials		High Density Poly Ethylene (HDPE), height 55 mm, diameter 15 mm.	20
49.	Crocodile Clips		Clips 50 mm, Plated, standard flexible wire 76, 50 cm long. Each set two wire five colour.	5 sets total 10 wire
50.	Multimeter		Pocket size, digital, high impedance. As per sample.	1

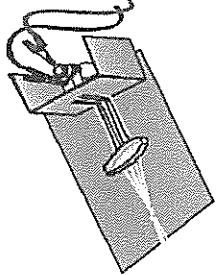
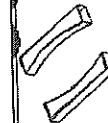


51.	Pair of Tongs		Dia. 05 mm, overall length 160 mm, chrome plated. As per sample.	1
52.	Surgical Scissor		125 mm, one prong blunt and other pointed, standard. As per sample.	1
53.	Screw driver		Dia 6mmx100 mm long, hardened, with plastic handle. As per sample.	1
54.	Claw hammer with handle		Forged, approximate weight 225 gm with wooden handle. As per sample.	1
55.	Micro Test Tube 2 mL		Borosilicate glass, diameter 10 x 45 mm height with rim, as per sample	16
56.	Magnifying Glass		Optical glass, focal length 120 mm, with plastic handle.	1
57.	Beaker (50mL)		Borosilicate glass, capacity 50 mL, height 56 mm, diameter 42 mm. with rim	1
58.	Beaker (10mL)		Borosilicate glass, capacity 10 mL, height 30 mm, diameter 20 mm. with rim.	4
59.	Permanent slide		Hydra, Amoeba, Paramecium, Striated muscles, Nerve cell, Spirogyra (Packed in plastic slide box)	One each
60.	Cover Slips		Thickness 0.2 mm – 0.3 mm approx. square glass pieces. As per sample.	20 (1 box)
61.	Glass Rod		Length 150 mm, dia. 07 mm.	1
62.	Glass tube		Glass tube dia. 6mm. x 150 mm. As per sample.	1
63.	Glazed Glass plate		Glass plate size 100 mm x 100 mm x 2.5 mm. As per sample.	1

64.	W-tube		Borosilicate glass, 2 mm thick x 8 mm dia. having length of arm 70-75 mm with wide mouth in one arm. As per sample	4
65.	Watch glass		Soda glass, diameter 50 mm. As per sample.	1
66.	Measuring Flask		25mL capacity As per sample.	1
67.	Round Bottom Flask		Borosilicate glass, capacity 35 mL, As per sample.	1
68.	Double Concave Lens		Glass, Focal length 20 cm and dia. 50 mm.	1
69.	Double Convex lens		Glass, Focal length 20 cm and dia. 50 mm.	1
70.	Concave Mirror		Glass, Focal Length 20 cm, dia. 5cm.	1
71.	Convex Mirror		Glass, Focal Length 20 cm, dia. 5cm.	1
72.	Plane mirror		2 mm x 50 mm Dia. Round edges.	1
73.	Square Glass Slab		Square glass slab, size 50 mm x 50 mm x 12 mm thick.	1
74.	Triangular Glass Prism		Glass Prism 25/28 mm equilateral triangle	1
75.	Laboratory Thermometer		Glass, alcohol filled, -10° C to 110° C, graduation 1° C with card board/plastic cover and cotton at both ends.	1
76.	pH Paper		pH 1-11, paper box containing, 10 booklets. As per sample	10 booklets

77.	Iron Filings		Packed in vial.	10g
78.	Litmus Paper		Red and Blue colours	5 each book-lets
79.	Plastic Boxes		Appropriate size to keep all glass items. 170 mm x 130 mm x 75 mm = 2 Box 230 mm x 128/130 mm x 85 mm = 1 Box All boxes packing for glass ware items.	3 Nos.
80.				1 No.
81.	Conical flask		Capacity 25 ml borosilicate glass	
82.	Boiling Tube with cork		Borosilicate glass 90 mm x 20 mm dia. with cork.	2 Nos.
83.	Steel ball		With hole (3 mm) along its diameter (Diameter- 18-20 mm) (identical size)	2
84.	Overflow can		Plastic transparent with built in base height 130mm and dia. 55 mm with over flow pipe dia. 8mm	1

85.	U-tube (glass/plastic)		Borosilicate glass/plastic, 2mm thick 8mm dia having length of arms 15 cm. made from tube length of 37 cm	1
86.	Wooden / plastic spool		Dia 54mm and length 63/65mm to hole 2m dia one side top As per sample	1
87.	Stop- clock		Main scale 0 to 60 s (least count one s), small scale 0 to 60 minute (least count one minute), appropriate size to store in the kit box. As per sample.	1
88.	Measuring tape		Tailor measuring tap	1
89.	White screen		100 mm x 100 mm	1
90.	Torch bulb with holder		Screw type bulb holder with tag for connection and bulb 3V As per sample	2 set
91.	Glass Slide		Standard glass item 75mm x 25mm x 1mm thick As per sample	8
92.	Assembly boiling tube with fitted cork glass tube		Borosilicate boiling glass tube dia. 25mm x 150mm length with rim. And assembled cork with bore dia. 5mm x 140mm length glass tube fitted in the cork bore	2
93.	Test Tube 20ml		Borosilicate boiling glass tube dia. 20mm. x 90mm.length with rim and cork fitted	2
94.	Delivery Tube		PVC plastic tubing dia. 8mm, 200mm long with "L" type plastic pipe fitting with rubber cork at one end and other end to nozzle.	1

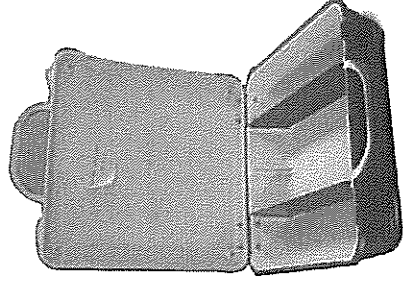
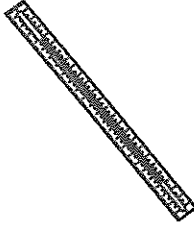
95.	Wire Gauze		100mm x 100mm with frame	1
96.	Thick black paper sheet		Black chart paper A4 size	4
97.	Taping key		Plastic base	1
98.	Optical bench wooden plastic scale		400 + 400mm x 27mm. x 6mm. thick wooden/ plastic scale. Marking in top centimeter and millimeter. in two parts to be joint through two pins	1
99.	Lens holder		Dia 35mm. Perspex rod over all height 55mm with 3.5 mm x 10mm elliptic depth slot & 6mm wide x 6mm elliptical depth slot. Bottom end slot 5mm x 27.5 mm for sliding on wooden scale.	1
100.	Screen holder		Perspex piece over all height 21.5mm approx round bottom 47.5 mm slit 27.5 x 5mm depth width 25.5 mm top slit straight 8mm deep & 3mm wide.	1
101.	Candle holder		Perspex piece over all height 21.5mm approx round bottom 47.5 mm slit 27.5 x 5mm depth width 25.5 mm top have 12mm dia. hole x 8mm depth	1
102.	Metal cylinder with hook		Solid cylindrical M.S. and aluminium dia 20mm x 50mm length with hook.	1 Alu. 1 M.S.
103.	250gm weight with hook		One 50g disc attached with dia 3mm x 90mm. hook and author number of four 50g weight fitted with slots one by one total weight will be 5 x 50g = 250g.	1 set

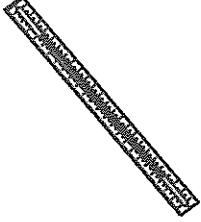
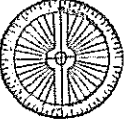
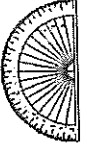
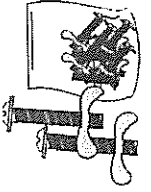
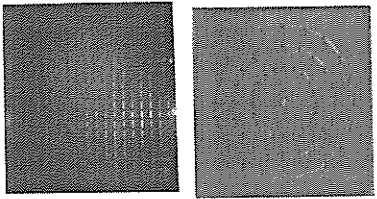

104.	Raysteak box		U shape mild sheet of 24 SWG. Size of the front face: 85 mm x 70 mm to 75 mm with M shape window of size of 30 mm x 30 mm starting from centre bottom side of front face. Size of two side faces: 40 mm x 70 mm. spot welded to the front face. Size of the M shape window cover : 30 mm x 40 mm. Front face, projected to the height of 15 mm having 3 slits of 0.75 mm thickness starting from bottom. Height of slits 30 mm, second slits at the centre. Distance between the slits 5 mm. Screw type bulb holder spot welded from inside Complete apparatus painted black. Supplied along with single slit strip. As per sample.	1
105.	Plano concave		Spherical Plano Lenses made from Perspex sheet of size 50 mm x 20 mm x 12 mm. As per sample.	2
106.	Half cylindrical lens		Perspex rod of size dia 25 mm x 15 mm height. As per sample.	1
107.	Double convex lens		Spherical Double convex lenses. Each made from Perspex sheet of size 50 mm x 20 mm x 12 mm. and matching with Plano concave. As per sample.	1
108			Visual cards Size 21cm x 30 cm plastic coated card	
109.	Stomata in monocot and dicot plants		Standard, as per sample	1
110.	Binary fission in Amoeba and Paramecium		Standard, as per sample	1
111.	Budding in Yeast and Hydra		Standard, as per sample	1
112.	Vegetative propagation in Potato, Bryophyllum and an aquatic plant		Standard, as per sample	1
113.	Parts of flower		Standard, as per sample	1

114.	Onion peel cells		Standard, as per sample	1
115.	Human cheek epithelium cells		Standard, as per sample	1
116.	Parenchyma and sclerenchyma tissue		Standard, as per sample	1
117.	Striated muscle fibers and		Standard, as per sample	1
118.	Spirogyra (thelophyta)		Standard, as per sample	1
119.	Agaricus (fungi)		Standard, as per sample	1
120.	Moss (Brophyta)		Standard, as per sample	1
121.	Fern		Standard, as per sample	1
122.	Pinus		Standard, as per sample	1
123.	Pea		Standard, as per sample	1
124.	Earthworm		Standard, as per sample	1
125.	Cockroach		Standard, as per sample	1
126.	Rohu		Standard, as per sample	1
127.	Pigeon		Standard, as per sample	1
128.	Life cycle of a mosquito		Standard, as per sample	1

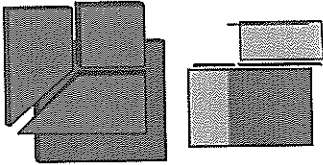
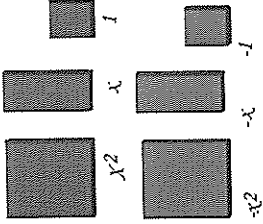

ANNEXURE-4

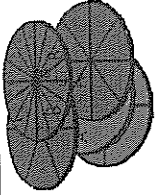
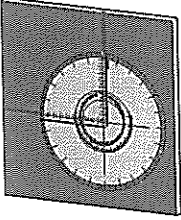
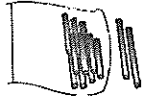
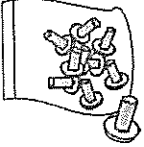
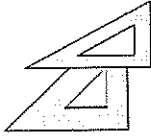
Secondary Mathematics Lab Kit
Technical Specification


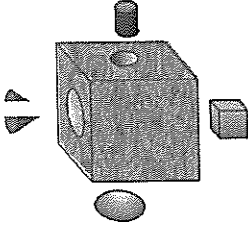
S.No	Item Name	Figure/stapes	Specification	Quantity per Kit
1	Kit manual		Kit manuals may be purchased from sales counter of Publication Division, NCERT, New Delhi. The price of all the kit manuals are ranging Rs.50 to 200/-	1 No.
2	Kit box with carton		Plastic molded box in Blue colour overall size 340mmx340mm x height 110/115 mm and sheet thickness 5mm. Two parts and joint with two pines on side all corner round shape and top to bottom taper 10 degree approx and handle for carrying with locking system. Inner side arrange for partition two pieces taper shape plastic strip for partition. Outer side engraving As per sample.	01 No.
3	Plastic Strip (A Type)		Transparent Perspex/Plastic moulded 264 x 20 x 2.7 mm to 3 mm having 3 slots of width 5 mm. at a distance of 0 to 30 mm. next 50 to200 mm. and again 220 to 250mm. numbering on 0 to 25Cm.with mm. both side, all marking and numbering with center line in black colours. As per sample	08

4	Plastic Strip (B Type)		Transparent Perspex/Plastic moulded 264 x 20 x 2.7 mm to 3 mm having 3 slots of width 5 mm. at a distance of 0 to 0.3 mm. next to 0.5 to 2.0 and again 2.2 to 2.5 all marking and numbering with center line in black colours. As per sample	03
5	Full Protractor (360°)		Transparent plastic dia. 125 mm, thickness 2 mm. Double angle marking 0-360° with centre hole 4 mm on centre point. As per sample	04
6	Half Protractor (180°)		Transparent plastic dia. 96/100 mm. approx. thickness 2 mm. Double angle marking 0-180° with centre hole 4 mm on base line. As per sample	04
7	Fly nut and Screw		Mild steel, chromium plated. length 15 mm, metric thread (M4), round head washer type with fly nuts. As per sample	15 Sets
8	Geo-board		ABS material, 210 x 210 x 15 mm. One face has grids of 10 mm square 2.5mm x 7mm dowel inbuilt 17 square each line 18 dowels in built every line total square 289 and other side four rounds with 2.5mm dia. X 6mm height dowel inbuilt dia. Having 70, 110, 150,190 mm each dia. 20 dowels As per sample	01
9	Rubber bands		Standard item assorted size thin rubber band good quality	20

10	<p>CUTOUPS (for area of polygons)</p> <p>a) A triangle and a trapezium marked as A and B respectively</p> <p>b) 3 triangles marked as A,B and C</p> <p>c) 2 triangles marked as T_1 & T_2 respectively</p> <p>d) 2 trapezium marked as C & D respectively</p> <p>e) A parallelogram</p>		<p>Plastic corrugated sheet 2.7mm / 3 mm. thick blue colour length 120 mm width 85 mm one angle 75 degree labeling with black colour. As per sample</p>	01 set each
11	<p>PYTHAGORAS THEOREM</p> <p>Square with 5 Cut Outs</p>		<p>i) Four plastic cutouts for Pythagoras theorem 125mm square. 100mm square and 75mm. square with same size triangle flash remove all side.</p> <p>ii) Plastic Sheet 125mm. square x 3mm. thick sheet and same size other sheet and cutout to 5 pieces. Cutting and marking as per figure flash remove all side. Total 9 pieces set.</p> <p>As per sample Note-Sheet thickness 3mm & colour may be uniform for all tiles.</p>	01 set each

12	Algebraic Identities		<p>Plastic sheet 76 mm. square with another three pieces cutouts. One is 38mm. square and two pieces are same size 38mm. x 76mm. in cut of 45° up to 38mm.</p> <p>ii) Plastic sheet in the four pieces two square 80mm. and 45mm. and another two rectangular 80mm. x 45mm. Note-Sheet thickness 3mm & colour may be uniform for all tiles. And flash remove all side</p>	01 set each
13	<p>ALGEBRAIC TILES</p> <p>a) $x^2, x, 1$ b) $-x^2, -x, -1$</p>	 <p>(1) (2) (3)</p>	<p>All tiles in three sizes. Made in Plastic sheets/plastic moulded</p> <p>1) x^2 and $-x^2$ in same size, 50mm. x 50mm. 5tiles in blue colour and another 5 in red colours.</p> <p>2) x and $-x$ in same size, 50mm. x 10mm. 10 tiles in blue colour and another 10 in red colours.</p> <p>3) 1 and -1 in same size, 10mm. x 10mm. 20 tiles in blue colour and another 20 in red colours.</p> <p>Packed in plastic box.</p> <p>As per sample</p> <p>Note-Sheet thickness 3mm & Printing on tiles required and flash remove all side</p>	01 set
14	Plastic Box		80 mm x 70 mm x 35/40 mm	01
15	CUT OUTS		Blue colour Plastic corrugated sheet 2.7/3 mm thickness dia 160 mm. five	

	For area of a circle		circle in the deferent 4, 6, 8, 12, and 16 equal parts. As per sample Sheet thickness 3mm	01 set
16	Trigonometric Circle Board		260mm. x 260mm. x 10mm. thick wooden card board .120mm. bottom and 120mm. left side take the center of the board and center to circular dials 200mm. circular groove 5mm. x 6mm. depth. X and Y marking in the dials. Full protractor 360° marking center and 5° to 10° marking out side of dials dia 5mm.x 6mm. hole in the center and top of circular board locating As per sample Note- Material of Board may be either wood or plastic	01
17	Connectors For (Strip)		Stainless steel, length 25 mm. and dia 5 mm. with rubber sleeve. Push fitting for trigonometric board groove. As per sample	15
18	Connectors (T-Type)		Flat rivet type 20mm. height and dia 4mm. with rubber sleeve. As per sample	10
19.	Set Square		As per standard medium size.	01 Set

20	Rotating Needle		Steel rod dia 3mm. x 200mm.length with one side 'L' bend dia. 4mm. rivet/screw attached with road and plastic sleeve dia.5mm on screw/rivet. As per sample	01
21	CUTOUPS with CUBOID a) Cone b) Cuboid c) Cylinders d) Hemisphere		Plastic solid/hollow Cube 60mm. x 60mm. 4 side of the cuboids tope bottom and right left side fitted dia 30mm. x 30mm. height cone in the top, bottom fitted 30mm. x 30mm. x 15mm. height cuboids, right side dia 20 x 20mm. height cylinder and left side dia 30 x 15mm. height hemisphere. As per sample	01 set