

ADP Scheme - 778
(Package - 6) GPI, Peshawar and Mardan
Physics Two GCT for B-Tech

| S # | Name of Items | Specification | Unit | For one college Qty | For 2 college Qty | Unit Price (Both in Figures and words) Include all taxes | Total Price (both in Figures and words) Include all taxes |
|-----|---|-------------------------|------------|---------------------|-------------------|--|---|
| 1 | Vernier caliper: Stainless steel made in plastic cover calibrated in centimeter and inches least count 1/20mm | 24 No | No | 24 | 48 | | |
| 2 | Solid cylinder of different sizes: Brass solid cylinder of length 3-6cm, dia. 1-2cm | 24 No | No | 24 | 48 | | |
| 3 | Screw Gauge: Stainless steel made in wooden box, 10-20mm main scale, 100 div on circular scale | 24 No | No | 24 | 48 | | |
| 4 | Copper wire: Dia. 1mm to 20mm | 2m each | m each | 2 | 4 | | |
| 5 | Weight box: 0.1mg to 500g | 6 boxes | Boxes | 6 | 12 | | |
| 6 | Spring balance (scale in gm. and Newton): Range 1-100gm (1 N), 1-1000gm (10 N) | 24 No (12 No. each) | No 12 each | 24 | 48 | | |
| 7 | Meter rod: Full meter rod 1-100cm half meter rod 1-50cm | 24 No (12 each type) | No 12 each | 24 | 48 | | |
| 8 | Wooden wedge: with metal strip fixed on sharp end size 6" x 3" | 24 No | No | 24 | 48 | | |
| 9 | Stand metallic: Iron stand with rectangular base and two clamps | 12 No | No | 12 | 24 | | |
| 10 | Gravel Sand apparatus with pulleys: Wooden with two pulleys and leveling screws, spirit level and plumb line | 12 No | No | 12 | 24 | | |
| 11 | Set Squares: Calibrated in inches and centimeters | 24 No | No | 24 | 48 | | |
| 12 | Drawing board: Hollow Wooden 18" x 24" x 3/8" | 24 No | No | 24 | 48 | | |
| 13 | Drawing board pin: Metallic with circular head | 12 packets | 12 pkt | 12 | 48 | | |
| 14 | Stop Watch analogue: Metallic casing 15min calibrated in minutes and seconds | 12 No | No | 12 | 24 | | |
| 15 | Thermometer Fahrenheit: Range 32-240F, 32-200F | 24 No | No | 24 | 48 | | |

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| 16 | Resonance tube apparatus ,length 1 meter: With Plastic tube 840×25mm mounted on record with 500ml Plastic tube bulb. | 6 | No | 3 | 6 | | |
| 17 | Tuning fork: Sets of tuning forks in a storage case with frequencies 256 Hz, 288 Hz, 320 Hz, 341(1/3)Hz, 384 Hz, 426(2/3)Hz, 480 Hz, 512Hz, | 06 sets | Sets | 6 | 12 | | |
| 18 | Rubber pad: For striking tuning fork | 12 No | No | 12 | 24 | | |
| 19 | Sonometer with slotted weights and two wedges: Wooden resonance box with two rules 1m long. one each brass and steel wires.two moveable bridges pulley and fixed screws, slotted weights ½ kg×4,1 kg×4 ,2 kg×4 | 06 No | No | 6 | 12 | | |
| 20 | Linear Expansion apparatus with metal rod and Accessories: Apparatus added with spherometer, glass jacket enclose Brass, Iron, Aluminum and a Copper rod within Error scale having differently colored pointers. Accessories: Brass, Iron, Aluminum ,Copper rods | 06 sets (12 each) | sets 12 ech | 6 | 12 | | |
| 21 | Graduated cylinder: Pyrex glass,graduated in ml | 12 No | No | 12 | 24 | | |
| 22 | Scale pan: Metal circular pan supported by strings | 12 No | No | 12 | 24 | | |
| 23 | Steam generator: Aluminum vessel with cork lid and retainer on an adjustable hot plate with thermal circuit breaker, volume 250ml | 12 No | No | 12 | 24 | | |
| 24 | Screw driver 6" (flat and star) : | 1set of six | set of six | 1 | 2 | | |
| 25 | Plier 6": | 01 No | No | 1 | 2 | | |
| 26 | Sextant: Student model, Comprising 220mm radius, withsighter adjustable half mirror and scale 0 to 130 with Vernier reading to five minimum in wooden case. | 06 No | No | 6 | 12 | | |
| 27 | Hygrometer: With wet and dry bulb,thermometer on polished zinc scale polypropylene frame with polythene reservoir with spare wires temperature range in centigrade -5 to 50×0.5 and 0 to 100 | 12 No | No | 12 | 24 | | |
| 28 | Set of weights: 13 pieces set of Brass weights in storage block. 1×1g,2×2g,1×5g,1×10g.2×20g,1×50g,1×100g,2×200g,1×500g ,1×1000g. | 06 sets | Sets | 6 | 12 | | |

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| 29 | Kundt's tube with scale and Accessories: Transparent acrylic tube with scale and end plates with tubing nozzles for filling with various gases, built-in speaker at one end, a bore and guide for accommodating moving piston or probe microphone at the other end. Includes retaining clips for mounting on stands and a connector lead for the speaker, length 1000mm,dia 70mm,tube nozzle 7mm dia. Accessories for each set: 1Probe micro phone with frequency range 20hz-20000hz with DIN plug for battery box, barrel foot, 1function generator (230V,50hz),1 whistle, a 1700hz tuning fork,1 bottle of cork powder. | 06 sets 06 sets | Sets | 6 | 12 | | |
| 30 | Hook's law apparatus with helical spring: Pointer and scale graduated in cm and mm hanging weights 6×50gm, 5 helical springs of lengths 120mm, 145mm, 150mm. 147mm,142mm. | 06 sets | Sets | 6 | 12 | | |
| 31 | Physical balance: With leveling screws in wooden casing and weight box 0.5gm-500gm weights. | 02 sets | Sets | 2 | 4 | | |
| 32 | Convex lenses: Of different focal lengths from 10cm to 50 cm | 60 No (12 each type) | No 12 each | 60 | 120 | | |
| 33 | Concave lenses: Of different focal lengths from 10cm to 50cm | 60 No (12 each type) | No 12 each | 60 | 120 | | |
| 34 | Concave mirrors: Of different focal lengths from 10cm to 50cm | 60 No (12 each type) | No 12 each | 60 | 120 | | |
| 35 | Convex mirrors: Of different focal lengths from 10cm to 50cm | 60 No (12 each type) | No 12 each | 60 | 120 | | |
| 36 | Fletcher trolley complete: Light metal track 1720×150 min wide with leveling feet covered with stops at either end, aluminum pulley 50mm dia., clamp for vibrator and automatic Pen release. Metal trolley with three wheels mounted.on ball bearings. Five hooks to accommodate cylindrical masses approximate 350gm. Vibrator 60mm long with clamping works at 5 and 8Hz and Pen holder to take fibertip type of pen. | 03 No | No | 3 | 6 | | |
| 37 | Glass slab 4×8×1cm | 12 No | No | 2 | 4 | | |
| 38 | Single ray projector with accessories: Light source for experiments on optics, connecting line 1.5m long with 4mm plug dimension 120mm×70mm dia., magnetic | 02 sets | Sets | 2 | 4 | | |

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| | holder for single ray projector 12V, 60VA (230V, 50Hz), Halogen lamp 12V, 35W | | | | | | |
| 39 | Multiple ray projectors, magnetic with accessories: Light source for optics. Lamp 12V, 55W connecting line 1.5 meter long with 4mm Plug. Dimension 150 × 200 × 50mm ³ Transformer 12V, 60 VA 230, 50Hz) Halogen Lamp 12V, 55W. | 02 sets | Sets | 2 | 4 | | |
| 40 | White board: Metal Board with Enameled Surface scratch and Acid resistant mounted on stand dimension 900 × 1200 mm ² . | 02 No | No | 2 | 4 | | |
| 41 | Optics kit for white board: Plan mirror (plastic) 200×35×35mm ³ . Convex, concave mirror f=±100mm 200×35×35mm ³ . Plano Concave lens (Acrylic glass), f= 400mm, 200×40×35mm ³ . Plan parallel Plate (Acrylic glass) 200×100×35mm ³ . Semicircular body, f=200mm dia. 200×35mm ² (Acrylic glass) Right angled prism 200×200×35mm ² (acrylic glass) Cylinder (Plastic) 100×20× 35mm ³ Cylinder (plastic), dia. 5×35mm ² Cylinder(plastic) dia. 6×35mm ² | 06 No | No | 6 | 12 | | |
| 42 | String: 10mm-20mm thick, cotton made. | 50 meter | Meter | 50 | 100 | | |
| 43 | Thermometer: 0-100 Degree C, -10 degree to -110 degree (Tube thermometer graduated) demonstration thermometer -20 to -110 degree C ^o . | 36 No (12 No each range) | No 12 each | 36 | 72 | | |
| 44 | Heat equivalent apparatus: Consist of a shaft with ball bearing at both ends, an integrated counter for measuring the number of revolutions and an attached table clamp. 1 basic unit, 1 Aluminum calorimeter, 1 temperature sensor, 1 pair of adopter cables with 4mm safety plugs / 2mm plugs, 1 fraction belt, 1 bucket of 5 liter, 1 counter weight, cord of length 1.80m and temperature calibration table. | 06 sets | Sets | 6 | 12 | | |

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|----|--|-------------------------------------|---|------------|--------------|--|--|
| 45 | <p>Optical bench complete with all standard accessories: Optical bench: Optics Track (1.2 m) rugged aluminum track. The metric tape makes position measurements easy. Accessories: Light Source has a lighted crossed arrow target with metric scale for focusing images through lenses or using with the concave mirror. Acts as a point light source, 1, 3, or 5 parallel rays, or red-green-blue rays. Lenses: 4 - 50 mm diameter. Lens's focal lengths +100, +200, +250, -150 mm mounted in protective holders. Concave/Convex Mirror: 50 mm diameter plastic mirror with reflective surface on both sides. Includes "half-screen" upon which the image is focused. Adjustable Lens Holder: from 19 mm to 75 mm in diameter. Storage Box: Everything fits neatly into the protective storage box, with the exception of the 1.2 meter Optics Track. 1 transparent screen, 1 white screen. 1 pin hole aperture d=1mm 1 pin hole aperture d=6mm</p> | 06No 06 sets | Sets | 6 6 | 12 12 | | |
| 46 | <p>Electrical calorimeter (1200ml) with accessories: Consist of a double walled, heat insulating plastic container with insulating vessel inside made of reflecting glass with heating coil and stirrer Accessories: Aluminum shot 100g, copper shot 200g, glass shot 100g, granules for filling calorimeter.</p> | 06 no 03bottles of each type | No 3 bottle s of each type | 6 | 12 | | |
| 47 | <p>Precision hair Hygrometer: Consist of a round plastic housing with a human hair Measuring range: 0%----100% relative humidity Temperature range: 35c-+65% °C Reading accuracy: ±5% Diameter: 100mm</p> | 06 No | No | 6 | 12 | | |
| 48 | <p>Torsion apparatus: Searle horizontal pattern. Two cast iron feet and grub securing screws separated by two support rods approx. 700mm long, wheel 165mm dia. moving in ball bearings, mounted on front foot, other end supported with clamping block through rear foot with two aluminum scales graduated with 30-0-30 in single degree mounted on pillar support, two pointers with clamp for attaching to specimen, one each Brass and Steel rods 5mm diameter, chord and hook for carrying masses and two spanners for clamping block nuts.</p> | 06 No | No | 6 | 12 | | |

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| 49 | Differential pulley: One piece aluminum with diameter of 38.5 mm & 63.5mm mounted in a metal frame with hook. | 12 No | No 12 per Dozen | 1 | 2 | | |
| 50 | Differential wheel and axle; compound wheel and axel with cast aluminum alloy block Comprising wheel 100mm diameter and axel 50mm & 25mm diameter mounted on adjustable steel cones and steel frame, wood back board with four holes for wall mounting, complete 5m nylon cord and steel hook. | 12 No | No 12 per Dozen | 1 | 2 | | |
| 51 | Maxwell's needle with accessories: Hollow metal cylinder 200mm long pointer and chuck to accommodate wires up to 20swg with each hollow and solid cylinders 50mm long tripod, stand with rod 1.2m long, base with leveling screws, clamp with arms 180mm long with chuck complete with three wires 1.5m long.one Brass26swg and one each steel 26 and 20swg. | 06 No | No | 6 | 6 | | |
| 52 | Friction measuring apparatus with Accessories: Demonstration apparatus with moveable friction surface formeasuring static and dynamic friction. The track can be made inclined. Dynamometer, 3 rails for holding static bodies, three 100gm weight. Accessories: Precision dynamometer (1N range),(2N range),(10N range) | 06 No. 12 No | No 12 each | 6 | 6 | | |
| 53 | Experiment set pulleys, block and tackle: Complete set of equipment consisting of a stable base plate, retort stand rods, pulley blocks, block and tackle, a set of pulleys of various diameters on an axle, weight holders, slotted weights with base plate 810×200mm ,pulleys 50mm diameter, standrods810mm×12.5mm,slottedweights2×10g,2×20g,2×50,4×100g,4×200g,1×500g, holders,1×10g,1×20g,5×50g. | 06 sets | Sets | 6 | 6 | | |
| 54 | Reciprocating motion motor: A field coil motor connected to a rotatory to linear convertmechanism showing cross sectional view. Both motor and gearbox are fully sectioned to show the method of operation. Lead from motor and gear box together taken to three 4mm sockets for connection to a 12 volts DC or AC supply mounted on plastic base complete with instructional booklet. | 06 sets | Sets | 6 | 6 | | |

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| 55 | <p>Cantilevers beam apparatus: To show the distribution of point load and uniform load. Consists of a well-seasoned wooden beam of L type shape , with horizontal graduated horizontal arm 75cm and vertical arm of 20cm, with a spring balance of 10 kg Capacity to make the horizontal leg horizontal under any load. Complete with one sliding slotted set weight set 100 gm to 1 kg.</p> | 06 No | No | 6 | 6 | | |
| 56 | <p>Compound lever (Brace version): Wooden structure consisting of Front and rear legs, leaver arm, base beam, handle, arms, lever arm, beam sides, brace, feet, hex bolt, washer, fasteners.</p> | 06 No | No | 6 | 6 | | |
| 57 | <p>Roof truss (warren girder) : For demonstration to students. -Bar cross-section: 10x3mm, stainless steel - bar lengths: 270mm, 186,5mm - tensile force: max. 600N - bars: 13, of which 7 with strain gauge measuring points Node discs: 8 All strain gauge connections are housed together in the strain gauge box.</p> | 06 No | No | 6 | 6 | | |
| 58 | <p>Forces in a Jib craneapparatus with complete accessories: Bench mounted.The unit consists of a metallic rod which provides the support locations for jib and tie. Load is applied via a hanger on the junction of jib and tie. To measure the deformation in jib and tie, dial gauges are connected to both elements.</p> | 06 No | No | 6 | 6 | | |
| 59 | <p>Simple screw jack for demonstration to students: 220 mm diameter turntable fitted with a 30 mm x 6 mm pitch screw is supported in a heavy cast iron base. Stand on a firm bench and a cord and weight hanger are wound round the rim of the turntable and hung over the pulley. The pulley runs on ball bearings to reduce friction to a minimum. To be provided with instructional manual</p> | 04 No | No | 4 | 8 | | |
| 60 | <p>Inclined plane: Metal base and inclined surface plane hinged with scales for angles, length and height. angle of inclination between 0-45,adjustable pulley, roller weight pan and cord</p> | 06 No | No | 6 | 12 | | |

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| 61 | Simple harmonic module/apparatus: Consist of a black metal disc, 200mm dia supported vertically on a clear plastic base fitted with feet. A white marker 13mmdia may be made to follow a circular orbit about the central of the disc. A similar marker move in a slot along the diameter of the disc in phase with the peripheral marker performing SHM when the peripheral marker caused to rotate at uniform speed .The disc is marked with cords and radial lines to assist in locating the relative marker positions. | 06 sets | Sets | 6 | 12 | | |
| 62 | Steel yard: Capacity 20 Kg with suspension rings and load hook, notched arm, with sliding mass and two scales dividing 0 to 5×005kg and 5 to 20×0.1Kg | 03 No | No | 6 | 12 | | |
| 63 | Worm and wheel apparatus: Wall-mounted, to study a way of connecting 2 shafts at right angles. Gear sets for 1, 2, 3 and 4 start worm and wheel units; interchangeable to fit on a rigid steel back plate. Two load hangers and weights set. | 06 sets | Sets | 6 | 12 | | |
| 64 | Derrick Crane: Bench-top, for analysis of internal forces in a pin-jointed framework. Deflection measured by individually calibrated leaf-spring balances. Movement measured by digital Vernier. Load hanger, loading weights, link and digital caliper. | 06 sets | Sets | 6 | 12 | | |
| 65 | Gearing elements to illustrate simple mechanical belt and gear wheel drives: Gearing elements consisting of base plate, belt pulley(35mm diameter), belt pulley (70mm dia.) gear wheel (20 teeth), gear wheel (40 teeth), crank handle, drive belt sets. | 02 sets | Sets | 2 | 4 | | |
| 66 | Reaction of beam apparatus: .Bench mounted. This apparatus is designed for simple experiments and demonstrations on simply supported beams. Two spring balances act as supports and enable reactions to be read directly. Three movable load hangers allow loads to be put in a number of positions. Levers can be investigated by suspending the beam from the free standing frame, and holding down the end with a spring balance. | 04 No | No | 4 | 8 | | |
| 67 | Bell crank lever:- (1) Strong table unit for demonstrating the application of moment to a crank lever. (2) Pressure gauge 50N. (3) Metal crank mounted in ball bearings. (4) Mechanical advantage min. 1:1 max. 2:1 (5) Fine compensation device for adjusting the crank so that the forces always act vertically. | 04No | No | 4 | 8 | | |

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| | (6) Crank length vertical: 200mm, horizontal: 400mm. Set of weights: up to 20N along with 6 weights with carrier. | | | | | | |
| 68 | Compression balance: For demonstration to students: | 06 No | No | 6 | 12 | | |
| 69 | Fractional horse power motor and Accessories: max 746 watts(single phase induction)with prony brake and revolution counter. With related accessories required for operational characteristics. | 03 No | No | 3 | 6 | | |
| 70 | Crank and connection rod apparatus: | 03 No | No | 3 | 6 | | |
| 71 | Fly wheel with slotted weight: Cast metal made, approx. 200mm dia×40mm thick mounted on a balanced horizontal shaft in metal bracket .280×180mm ² drilled for wall mounting | 03 No | No | 6 | 12 | | |
| 72 | Analog DC Volt meter: (Bench top) Measuring. ranges 3.0 v, 15 v, 300 v. Scale division 0.1v, 1v, 10 v. | 6 (02each range) | No (6 each range) | 6 | 12 | | |
| 73 | Analog AC Volt meter: (Bench top) Measuring. ranges 15 v, 150 v. Scale division 0.5 v, 5 v | 06(2 each range) | No (6 each range) | 6 | 12 | | |
| 74 | Connecting Copper wires with insulation cotton: | 50 yards | Yards | 50 | 100 | | |
| 75 | Resistance box plug type (Manganin coil): Thick rectangular brass block, resistance coils are made from doubled silk covered Manganin wire. Accuracy ±0.05%. Having resistance 0.1ohms to 500 ohms and 1 ohm to 10000 ohms. | 06 No (03 each type) | No 03 each type | 6 | 12 | | |
| 76 | Specific gravity bottle,25cc: | 24 No | No | 24 | 48 | | |
| 77 | Specific gravity bottle,50cc: | 24 No | No | 24 | 48 | | |
| 78 | Friction measuring apparatus along with accessories: Demonstration apparatus with moveable friction surface for measuring static and dynamic friction. The track can be made inclined, 3 rails for holding static bodies, three 100gm weight. Accessories: Precision dynamometer yellow(1N range),red(2N, range), Green(10N range),three 100 g weights, aluminum block with a Teflon coated surface and two hooks,wooden blocks with plastic coated surfaces and hook.approx 120×60×60mm ³ &120×60×30mm ³ | 06 No | No | 6 | 12 | | |

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| 79 | Ampere meter: AC measuring range 1.00 A, 5 A. Scale division 0.02 A, 0.1 A. Internal resistance rectifier. DC measuring range 50 mA, 500 mA, 5.0 A. Scale divisions 1mA, 10 mA, and 0.1 mA. Internal resistance 10 Ω . | 06 (03 each AC&DC) | No 03 each AC & DC | 6 | 12 | | |
| 80 | Viscometer (Standard Size)with Accessories: Falling sphere viscometer with 6 spheres and 1 ball gauge measuring range 0.5mPaS To 7×10^4 mPaS. Accessories: 2 sphere of Borosilicate glass,2 spheres of Ni-iron and 2 spheres of steel, thermometer 0-100C,test certificate with accurate values for spheres constant K and density ,silicon tubing(2x) immersion/circulation thermostat | 6 06 sets | Sets | 6 | 12 | | |
| 81 | Photo Electric cell for determining planks constant with Accessories: Basic apparatus with photo cell, volt meter, Nano ammeter and power supply, 5 LEDs in casing with connector leads one plug in supply 12V AC, wave length 472 nm, 505 nm, 525nm, 588 nm, 611nm, Accessories for photo electric cell: Set of 15 experimental leads,75cm | 06 No | Sets | 6 | 12 | | |
| 82 | Rheostat: Slide contact Resistors in safe housing with built in earth sockets maximum voltage 600V, Terminals 4mm safety socket | 06 No | No | 6 | 12 | | |
| 83 | Electric Lamp: \emptyset 160 Watts Mercury, 6V \emptyset 28 Watts Sodium, 6V \emptyset Lamp housing, Sockets, Cable with 4mm plug | 03lamps each & 03 housing with 6meter cable | No Lamps each & 3 housing with 6 meter cable | 6 | 12 | | |
| 84 | DC power supply (non-programmable): Output voltage 0-20 Volt, output current 0-10 Amp, Power 200 Watt, LED Display, | 03 No | No | 3 | 6 | | |
| 85 | Galvanometer DC: Range \pm 35 Micro Amp, scale division 1 Micro Amp, Internal resistance 1000 ohm | 06 No | No | 6 | 12 | | |
| 86 | Diode: Si-Cut-off Voltage 1000 Volt and 1300V, Maximum current 1 Amp &Ge, Cutt-off Voltage 90V, Maximum current 50mA, | 24 N0(12 N0 each type) | No 12 each | 24 | 48 | | |
| 87 | Zener diode: ZPD 3.3 (Maximum Power dissipation 0.5 Watt), ZPD 9.1 (Maximum Power 0.5 Watt). ZPD. (6.2 Maximum Power 0.5 Watt). ZPY. 5.6(Maximum Power 1.3 Watt) ZPY 8.2 (Maximum Power 1.3 watt) ZPD. 18 (Maximum Power 0.5 Watt). | 72 No (12 No each type) | No 12 each | 72 | | | |

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|----|--|---|---------------|-----|-----|--|--|
| 88 | Capacitors : (electrolytic or Mylar) Ø 1nf,630v Ø 2.2nf,160V Ø 10nf,100V Ø 100pf,160V Ø 470pf,160V Ø 0.22micro farad.250V Ø 4.7micro farad,36V Ø 1micro farad,100V Ø 2.2micro farad,63V Ø 0.47micro farad,100V | 120 No (12 No each type) | No 12 each | 120 | 240 | | |
| 89 | Inductors: Ø coil with 250 turns Ø coil with 500 turns Ø stands for fields coil and tubes | 24 No (12 No each type) 12 No stands | No 12 each | 24 | 48 | | |
| 90 | Polari-meter: With a lighting unit comprising four monochromatic LEDs with sample cylinder, angle scale on the cover wavelength of LED's 468nm, 525nm. 580nm, 630nm, | 06 No | No | 6 | 12 | | |
| 91 | Laser beam apparatus : Ø 0.5mw He-Ne Laser Ø optical bench Ø screen Metal bench ,guide rail with leveling plate form 500mm,laser diode driver and temperature controller, laser safety goggles.1000mw and 100mw diode laser with built in cooler, thermistor and photo diode, lens, collimator, optical rider, mounting plate, Nd:YaG crystal. Laser mirror 1 and 2.frequency module, passive Q switch. PIN photo diode on optical rider, cylindrical lens of $f = +15\text{mm}$, $+25\text{mm}$, $+45\text{mm}$, collimator lens of $f= +75\text{mm}$,focusing lens $f= +75\text{mm}$, filter holder with filters, polarization filter and transport case. Or Equivalent Specification. | 06 sets | Sets | 6 | 12 | | |
| 92 | Basic experimental board power requirements 200VAC 50Hz. with standard accessories: For Ohm's law, parallel and series resistor circuits, potentiometer, voltage divider with and without load, discharge of a capacitor, Bridge and half wave rectifiers, characteristic curves For silicon and zenor diodes for lamp and LED curves. For LC parallel and series resonant circuits, for RLC series resonant circuit. | 06 sets | Sets | 6 | 12 | | |

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| 93 | Transistors: Ø NPN current gain40-250,power dissipation 5W Ø NPN current gain420-800,power dissipation 0.5W Ø PNP current gain40-250,power dissipation 5W Ø PNP current gain420-800,power dissipation 0.5W | 48 No (12 No each type) | No 12 each | 24 | 48 | | |
| 94 | Analogue Multimeter: Measuring range AC 0-750V & DC 0-600V AC current 0-10amp & DC 0-10amp,Internal resistance 10M ohms | 06 No | NO | 6 | 12 | | |
| 95 | Magnets Horseshoe: Horseshoe magnet Alnico magnet with screw, Poles marked red and green pole Area approx. 20x10mm ² . Distance between poles approx. 50mm length of shank approx. 70mm. | 06 No | No | 4 | 8 | | |
| 96 | Parallel plate capacitor with Accessories: A fixed and a moveable plate on a guide rail having centimeter scale, plate separation can be finally adjusted and read off from display to an accuracy of 1/10mm plate spacing: 0-160mm,plate area 500cm ² plates solid casting. Plates can be adjusted between 0 and 20mm via a sindle. Accessories: Plastic dielectric plate 300x300x2mm ³ approx Plexiglass dielectric plate 300x300x2mm ³ approx | 03 No | No 12 each | 3 | 6 | | |
| 97 | Electric field meter (230V,50Hz.) with Accessories: Maximum output voltage: 10 VIV output can correspond to 100V/c,300V/cm,1000V/cm,10V,30V, 100V(with 1x voltage measurement plate), 100V,300V,1000V(with 10 x voltage measurement plate), I capacitor measurement plate 250cm ² set Plexiglas spacers, Drip cup basin. | 02 No | No | 2 | 4 | | |
| 98 | Center of gravity apparatus: Comprises a rod mounted on a base with a suspension screw at the top and four laminas of clear acrylic - 1 each of circular, triangular, square and trapezoidal. Each lamina has suspension holes along their periphery. | 06 No | No | 6 | 12 | | |