

Christian College, Chengannur**Tender notice dated 16.12.2011****Detailed Specification of Items**

Sl. No.	Items	Approximate Nos.	Specifications
1	Computers	13	INTEL CORE I3 2100 PROCESSOR, ASUS P8H61-MLX MOTHER BOARD, 4 GB DDR2 ADATA MEMORY, 500GB SATA HARD DISK DRIVE, DVD WRITER, LOGITECH 104 KEYBOARD, LOGITECH PS2 OPTICAL SCROLL MOUSE, 17" LCD MONITOR, (SQUARE TYPE), IBALL ATX CABINET
2	Laptop	1	DELL 15R WITH INTEL CORE I3, 4GB RAM, 500 GB HARD DISK, 15" SCREEN, DVD WRITER, WEBCAM, BLUE TOOTH, WIFI, WINDOS 7, CARRYBAG, IR MOUSE
3	Laser Printer	6	LOW END LASER PRINTER, A 4 SIZE PRINTING, MINIMUM: 150 SHEET PER CASSETTE, COPIES: MINIMUM 12 PAGES PER MINUTE
4	Digital Photocopier with 2 KVA Stabilizer	1	MINIMUM COPYING SPEED 20 cpm, A3 COPIER, A3 LASER PRINTER & A3 BUILT IN COLOUR SCANNER, DUPLEX, NET WORK PRINTING
5	Stabilizer	2	2KVA STABILIZER
6	Visualizer	2	DIGITAL VISUAL PRESENTER, 20 LAKHS PIXELS PS SCAN CAMERA DISPLAYING SXGA(1280X1024) RESOLUTION, MINIMUM 12 TIMES OPTICAL ZOOM & 8 TIMES DIGITAL ZOOM, VERTICAL AND HORIZONTAL 360° HEAD ROTATION, REMOTE CONTROL LED LAMPS FOR BASE LIGHT AND ASSISTED LAMP, DIGITAL TOUCH KEYBOARD, PRESENTER THICKNESS 30 MM ONLY, COMPUTER CONNECTIVITY AND SOFT WARE (QUOTE FOR VISUALIZER WITHOUT COMPUTER CONNECTIVITY ALSO)
7	DLP Projector	3	HIGH END PROJECTOR, MINIMUM; 2800 ANSI LUMEN, CONTRAST RATIO 1:3000, SVG RESOLUTION 800X600, TECHNOLOGY 3LCD, INTERFACE USB, HDMI
8	Scanners	4	A4 SIZE SCANNING, AUTO SCAN MODE, AUTOMATIC DUST AND SCRATCH REDUCTION
9	UPS with battery	2	a. 5 KVA UPS WITH 100 AH EXIDE TUBULAR EL100 BATTERIES (4 NOS) (QUOTE WITH 100AH APC BATTARIES ALSO)
		2	b. 3 KVA UPS WITH 100 AH EXIDE TUBULAR EL100 BATTERIES (4 NOS) (QUOTE WITH 100AH APC BATTARIES ALSO)
		2	c. 2 KVA UPS WITH EXIDE TUBULAR BATTERIES (QUOTE WITH 100AH APC BATTARIES ALSO)
10	Batteries for 5 KVA UPS	5	100 AH EXCIDE TUBULAR EL 100 BATTERIES FOR EXISTING 5 KVA UPS (QUOTE FOR 100AH APC BATTARIES ALSO)

11	Inverter	1	SINE WAVE UPS SEBz 850 MICROTECK WITH 120 AH TUBULAR BATTERY EXIDE INCLUDING INSTALLATION (QUOTE WITH 120AH APC BATTARIES ALSO)
12	Data switches for Computer networking	1 2	a. DATA SWITCH FOR 16 COMPUTER NETWORK b. DATA SWITCH FOR 8 COMPUTER NETWORK
13	Oscilloscope	4	DUAL CHANNEL, 70 MHZ TO 200 MHZ BANDWIDTH, 8 DIGITAL CHANNELS, 100 kpts MEMORY, BUILT IN FUNCTION GENERATOR
14	Thompson e/m apparatus	1	HIGH VOLTAGE POWER SUPPLY, ONE METER SCALE PROVIDED TO MEASURE THE DEFLECTION, INTENSITY, FOCUS & DEFLECTION CONTROLS, COMPASS BOX, SET OF ELICO MAGNETS, TEAK WOOD STAND WITH CRT MOUNTED, TEAK WOOD U STAND WITH SCALE ON BOTH ARMS FOR PLACING MAGNETS
15	Hall effect set up	1	HALL PROBE (GE CRYSTAL), HALL PROBE (InAs), HALL EFFECT SET UP (DIGITAL), ELECTROMAGNET, CONSTANT CURRENT POWER SUPPLY, DIGITAL GAUSSMETER
16	Pelletizer	1	10mm TUNGSTEN CARBIDE EVACUBLE DIE SET, 10 MM HARDENED ALLOY STEEL EVACUABLE DIE SET, 15 TONS SEMI AUTO LAB PELLET PRESS (ECONOMY MODEL), 15 TONS MANUAL TABLE TOP HYDRAULIC HOT PRESS WITH DIE
17	Fume Hood	1	MINIMUM FACE WELLOSITY: 100 FPM, BAFFLE WELLOSITY 1000 FPM, DUCT WELLOSITY 2000 FPM, SUCTION CAPACITY 1800 CFM, SUETABLE FOR ACID ALCOLI, HEAT RESISTANCE, DOOR FRAME OF MS WITH SAFETY GLASS 6 mm THICK VERTICAL SLIDING WITH COUNTER WEIGHT BALANCE ARRANGEMENTS, BAFFLE: 4 mm THICK WITH AERO DINAMIC SHAPE, ELUMINATION 40 W FLOORESENT TUBE (2 Nos.), STORAGE CUPBOARD AND DRAERS, TABLE TOP POLISHED GRANITES MINIMUM 20mm THICK, FRP CUP SINK, GAS AND WATER WALVES, WORKING SIZE MINIMUM L4 D2 X H3 ft., WOOD WITH LAMINATION, INCLUDING INSTALLATION AND DEMONSTRATION (QUOTE FOR STAINLESS STEEL GRADE 304 ALSO)
18	Electronic balance	1 1	a. READABILITY 0.0001 GRM, CAPACITY 220 GRAMS, INTERNAL CALIBORATIONS b. READABILITY 0.001 GRM, CAPACITY 220 GRAMS, INTERNAL CALIBORATIONS
19	Digital calorimeter	1 1	PHOTOELECTRONIC WITH 5 FILTERS TYPE 114 PHOTOELECTRONIC WITH 8 FILTERS TYPE 115

20	Digital Conductivity meter	1 1	a. RANGE 0.1 uS TO 100 mS (6 DECADIC RANGES), ACCURACY: $\pm 1\%$ OF FS, ± 1 DIGIT RESOLUTION: 0.001 μ S WITH TEMPERATURE PROBE AND CELL b. RANGE 0.1 uS TO 100 mS (6 DECADIC RANGES), ACCURACY: $\pm 1\%$ OF FS, ± 1 DIGIT RESOLUTION: 0.001 μ S WITHOUT TEMPERATURE PROBE AND WITH CELL
21	High speed refrigerated centrifuge with stabilizer	1	HIGH SPEED REFRIGERATED CENTRIFUGE WITH 15 ml ANGLE HEAD ROTOR AND SUETABLE STABILIZER
22	Laminar air flow cabinet	1	LAMINAR AIR FLOW BENCH HORIZONTAL WOODEN STANDARD, MODEL LH 22, DIMENSION 600X600X600 mm WITH BUILT IN U V GERMICIDAL LIGHT, ELUMINATION MINIMUM 750 lux, WITH ALL ACCESSARIES (SPECIFY DETAILS IN THE TENDER)
23	Strain Gauge	2	LINEAR STRAIN GAUGE WITH 1 & 2 MEASURING GRIDS, RESISTANCE (Ohm): 120/350, TYPICAL METAL-FOIL
24	Function Generator	4	UP TO 20 MHZ SINE/SQUARE/TRIANGULAR WAVEFORMS, RAMP, TRIANGLE AND DC WAVEFORMS, PULSE GENERATION EDGE, 14-Bit, 50 MSa/s, 64 K POINT ARBITARY WAVEFORMS, STANDALONE OR MODULAR CAPABILITIES
25	Single slit and double slit	1 each	ALL METALLIC DIFFRACTION GRATING CLAMP TYPE, MICROMETERS SCREW SLIDING TYPE.
26	Spectrometer	4	LONG ARM TYPE, MACHINE ENGRAVED DEGREE PLATE OF DIAMETER 180mm, GRADUATED 0-360 ^o , RAMSDEN EYEPIECE 10X WITH CROSS HAIR RETICLE
27	Lecher wire apparatus	1	QUOTE AS PER STANDARDS AVAILABLE
28	DC Power supplies	3 each	0-12V, 0-100V, 0-200V
29	Microprocessors	2	INTEL 8085A CPU ON BOARD @ 6.144 MHZ CLOCK SPEED, 8 KB EPROM, 8 KB STATIC RAM, PROVISION TO UPGRADE RAM/EPROM UP TO 64 KB, EPROM PROGRAMMER TO PROGRAMME 2716 TO 27256 FULLY SOFTWARE CONTROLLED, 8 NOS OF INTERRUPT LINES BROUGHT OUT TO A 10 PIN CONNECTOR, ON BOARD 8 CHANNEL 8 BIT A/D CONVERTOR, ON BOARD 1 CHANNEL 8 BIT D/A CONVERTOR (STEPPER MOTOR INTERFACED, TEMPERATURE CONTROLLED INTERFACED, SPARE IC AND COPROCESSOR)

30	High voltage DC source	1	VOLTAGE SOURCE UP TO 32V, CURRENT SOURCE UP TO 200 mA, ACCURACY 0.5% OF SETTING + 240 μ V (AT 10 V RANGE FOR ONE YEAR), ACCURACY 0.5% OF SETTING + 5 μ A AT 100 mA RANGE FOR ONE YEAR
31	Planck's constant apparatus	2	INTEGRATED PHOTOCELL, INTEGRATED VOLTMETER AND NANO-AMMETER FOR DETERMINING PLANCK'S CONSTANT AND THE WORK DONE IN EMITTING AN ELECTRON USING THE STOPPING POTENTIAL METHOD, CONTROL OF LIGHT INTENSITY 0 TO 100%, PLUG IN POWER SUPPLY 12 V AC
32	Digital multimeters	6	DIGITAL MULTIMETERS WHICH CAN MEASURE VOLTS, OHMS AND AMPS WITH A BASIC V dc ACCURACY OF 0.015%, OPTIONS FOR 4-WIRE OHMS MEASUREMENTS WITH JUST TWO LEADS, DUAL DISPLAY, PC CONNECTIVITY, 3 YEAR WARRANTY
33	Vapor lamps	5 each	MERCURY VAPOUR LAMPS AND SODIUM VAPOUR LAMPS (QUOTE AS PER STANDARDS AVAILABLE)
34	Galvanometer	6	OSWALD, GALVANOMETER 30-0-30 DIVISIONS, SENSITIVITY OF 20 MICRO AMP/DIVISION
35	Ballistic Galvanometer (BG)	2	POWER SUPPLY FOR BALLISTIC GALVANOMETER, MOVING COIL WITH LARGE MOMENT OF INERTIA, FLEXIBLE SUSPENSION, HIGHLY SENSITIVE COIL, LAMP AND SCALE ARRANGEMENT WITH ADJUSTABLE STAND, DEFLECTION MEASUREMENT SCALE
36	Milli Ammeter	6	OSWALD, 0-500 MILLI AMP
	Micro Ammeter	6	OSWALD, 0-500 MICRO AMP
37	Voltmeter	6	OSWALD, 0-12 V, 0 -1 V, 0-5 V
38	Coil for Anderson Bridge	4	THREE DIFFERENT VALUE INDUCTANCES
39	Thermal Diffusivity Apparatus	2	MATERIALS: GLASS, WOOD, POLYCARBONATE, METALS, PLASTIC TUBING FOR CONNECTING STEAM GENERATOR, STAND WITH INSULATING PADS
40	Ultrasonic Crystal	3	QUARTZ CRYSTAL RESONATOR
41	Semi conductor laser	2	532 NM @ 1MW WITH AT LEAST 2 YEAR WARRANTY
42	Chemical resistant vacuum pump	1	150 LITRE, 1 HP NON RETURN VALVE, OIL FREE, LIQUID FILTRATIONS TYPE, VACUUM ATTAINABLE: -650 mm Hg, RPM: MINIMUM 1500

43	Hot Air Oven	1	BOTTOM HEATED, DOUBLE WALL CHAMBERS- INNER MADE OF SS/Alu AND OUTER OF MILED STEEL SHEET POWDER COATED WITH 3' THICK GLASS WOOLS TEMPERATURE CONTROL BY THERMOSTAT OF 300° C WITH AN ACCURACY OF $\pm 1^{\circ}\text{C}$, 2 TRAY, 95 LITERS, 1000 W, CHAMBER SIZE 450X450X450MM (MINIMUM)
44	Colorimeter	1	a. DIGITAL PHOTOELECTRIC COLOURIMETER WITH 5 FILTERS, LIGHT SOURCE 6 V LED, WAVE LENGTH 400-700 NM, RESOLUTION 0.01 IN OD.
		1	b. DIGITAL PHOTOELECTRIC COLOURIMETER WITH 8 FILTERS, LIGHT SOURCE 6 V LED, WAVE LENGTH 400-700 NM, RESOLUTION 0.01 IN OD.
45	Magnetic stirrer with hot plate	1	MS SHEET POWDER COATED BODY WITH SS TOP, STIRRING MINIMUM 1200 RPM, TEFLON COATED MAGNETIC PADDLE 2 LTR
	Magnetic stirrer without hot plate	1	MS SHEET POWDER COATED BODY WITH SS TOP, STIRRING MINIMUM 1200 RPM, TEFLON COATED MAGNETIC PADDLE 2 LTR
47	Electric Bunsen Burner	2	SS BODY WITH GLASS WOOL INSTULATION FITTED WITH 300 W WITH HEATING ELEMENT (WITHOUT REGULATOR)
48	IR Lamp	2	FULL SET
49	Digital Potentiometer	4	RANGE 0 - ± 2000 mV, RESOLUTION 1 mV, INPUT IMPEDANCE 10^{11} OHM, BIPOLAR, AUTOMATIC 3 DIGIT LED DISPLAY WITH ALL ACCESSARIES
50	Molecular models	2	SIGMA Z 7060000 HGS OR SIMILAR MODELS
51	Podiums	8	ATTRACTIVE PUBLIC ADDRESS STEEL PODIUM WITH WOODEN TOP, BLACK FINISH
52	English Language Laboratory Software (including setting up)	1	DIGITAL LANGUAGE LABORATORY SOFTWARE WITH PROVION FOR TEACHER CONTROLLED AND SELF CONTROLLED CLASSES WITH MINIMUM 15 USER LICENCE, NECESSARY HEAD PHONES AND ACCESSARIES, INSTALLATION, TRAINING, SELF STUDY MATERIALS
53	Softwares	1 each	WINDOWS 7 HOME BASIC, KASPERSKI SINGLE VERSION, KASPERSKI CORPORATE VERSION
54	LAN Cable and cabling works	approx-200 m	GOOD QUALITY CABLE INCLUDING CABLING WORK, QUOTE THE RATE FOR (1 METRE)
55	Students stations and master console for Language lab	as per drawing	14 STUDENTS STATIONS: 17.5' ft. LENGTH X 4 ft. WIDTH X 2.5 ft. HEIGHT WITH MIDDLE PARTITION FOR 14 COMPUTERS WITH MARINE PLYWOOD 12 mm, TOP MICA SHEET WITH DRAWER FOR KEYBOARD AND TEACHER CONSOLE AS PER DRAWING

Conditions:

1. Cost of tender form: Rs. 400/- + VAT (4%)
2. Last date of submission of tenders: 3:00 pm on 04.01.2012
3. Date of opening the tenders: 4:00 pm on 04.01.2012 at the college office
4. Price for one number/one unit shall be quoted, including VAT/Sales tax and all other taxes, if any in all cases
5. The quoted rates shall include installation, training and other such provisions.
6. Along with the tenders the specifications of items quoted shall be submitted in detailed catalogs, photos etc. are to be enclosed. The guaranty period and the warranty period shall be specified. Service guaranty shall also be specified. Tenders without proper specifications and all required details will be summarily rejected.
7. EMD at the rate of 1% of the quoted amount along with Rs. 100/- stamp paper properly signed shall be enclosed.
8. Tenders are invited for expenditures from different heads. Hence bills / receipts shall be provided for equipments / works according as their heads. Billing may be made only after instructions from the college office.
9. If more funds are available the tenderers shall supply additional numbers of the above mentioned equipments/items at the quoted rates.

Principal