

KATWA COLLEGE

(Affiliated to the UNIVERSITY OF BURDWAN)



Principal's Office

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Ref. No: 01/Equip-D/Pc/17

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QUOTATIONS NOTICE FOR EQUIPMENTS PURCHASE FOR DIFFERENT SUBJECTS IN RESPECT OF ADVERTISEMENT NO ----- IN THE DAILY NEWS PAPER THE TELEGRAPH, PAGE NO- METRO- 8 AND SANGBAD PARTIDIN, PAGE NO- 6

Sealed Quotations are invited from recognized Manufacturers/Suppliers/Contractors for procuring following items within **20/09/2017** (on working days, upto 3.00 p.m.). In no case the Quotations papers will be accepted after the date and time mentioned above. Quantity of the specific items may change according to final consideration. Quotation of different price ranges may be submitted for an item where specification / Model no. is not mentioned. **Quotations must include GST registration no., inclusive GST rate, exclusive GST rate and status of delivery/installation charges etc along with terms and conditions of available Guarantee/Warranty.** Quotations papers should be separately submitted for specific envelop as mentioned hereunder. No softcopy is entertained/ accepted. **Sealed Quotations to be sent in the College Address – Principal, Katwa College, Katwa, Burdwan, 713130 within 20/09/2017** (on working days, upto 3.00 p.m.).

REQUISITION OF EQUIPMENT FOR THE DEPARTMENT OF BOTANY ACCORDING TO CBCS CURRICULAM

| SL NO | ITEMS | | QUANTITY |
|-------|-------------------------------|------------|----------|
| 1 | Compound Microscope | Ajoy AJ-6 | 15 |
| 2 | Simple Microscope | Ajoy AJ-2 | 15 |
| 3 | Respiroscope | | 10 |
| 4 | Photosynthesis measuring tube | | 24 |
| 5 | Camera Lucida | | 12 |
| 6 | Stage Micrometer | | 12 |
| 7 | Occular Micrometer | | 12 |
| 8 | Eye piece Pointer | 15x 10x | 3 3 |
| 9 | Mechanical Stage | | 12 |
| 10 | 10x Objective | | 12 |

| | | | |
|----|------------------------------------|----------------------|-----------------------|
| 11 | 45x objective | | 6 |
| 12 | 100 x objective | | 6 |
| 13 | Stand with Clamp | | 12 |
| 14 | Forceps | 4 inches 8 inches | 4 4 |
| 15 | Scissors | 4 inches | 4 |
| 16 | Spatula | 8 inches | Small – 4 Large -4 |
| 17 | Printer/ Scanner | | 1 |
| 18 | Desktop Computer | | 2 |
| 19 | Pan Balance | | 2 |
| 20 | Gas line connection for laboratory | | 10 points |
| 21 | Refrigerator | Double door 240 ltr | 1 |

REQUISITION OF EQUIPMENT FOR THE DEPARTMENT OF CHEMISTRY ACCORDING TO CBCS CURRICULAM

1. Chemicals

Inorganic:

Sodium carbonate, sodium hydrogen carbonate, KMnO_4 , Oxalic acid, $\text{K}_2\text{Cr}_2\text{O}_7$, $\text{Na}_2\text{S}_2\text{O}_3$, Fe(II) and Cu(II) salts, nickel phosphate, cobalt phosphate, manganese sulfate, zirconyl nitrate, zinc uranyl acetate, quinalizarin,

Organic:

Benzoic acid, *p*-toluidine, *p*-nitrobenzoic acid, *p*-amino benzoic acid, *p*-nitro toluene, *p*-anisidine, cyclohexane, cyclohexanone, acetylacetone, anisole, ethyl methyl ketone, crotonaldehyde, mesityl oxide, oxalic acid, tartaric acid, citric acid, succinic acid, resorcinol, urea, glucose, cane sugar, salicylic acid, formic acid, acetic acid, methyl alcohol, ethyl alcohol, acetone, aniline, toluene, dimethylaniline, benzaldehyde, chloroform and nitrobenzene, [organic compounds for functional group analysis \(GE course\)](#).

Physical : Bromocresol green, phenolphthalein, methyl red, KI, ammonium molybdate, methyl acetate, ethyl acetate, $\text{Pb}(\text{NO}_3)_2$

2. Glassware and equipments

- Melting and boiling point determination apparatus, thermometer
- Volumetric flask: 100 mL, 250 mL, 500 mL, 1000 mL
- Conical flask: 100 mL, 250 mL, 500 mL

4. Stoppered Conical flask: 100 mL, 250 mL, 500 mL
5. Beakers: 50 mL, 100 mL, 250 mL, 500 mL
6. Burette
7. Pipette
8. Graduated cylinder
9. Glass rods
10. Sample bottle (Stoppered)
11. Filter paper (Whatmann)

**REQUISITION OF EQUIPMENT FOR THE DEPARTMENT OF ELECTRONICS
ACCORDING TO CBCS CURRICULAM**

| FOR SEM-1 | | |
|------------------|---|-----------------|
| SL NO | FULL SETUP OF EXPERIMENTS | NO. OF SETUP |
| 1 | VERIFICATION OF SUPER POSITION THEOREM. | 1 |
| 2 | VERIFICATION OF THEVENIN AND MAXIMUM POWER TRANSFER THEOREM. | 1 |
| 3 | CENTRE TAPPED FULL WAVE RECTIFIER – WITHOUT AND WITH SHUNT CAPACITANCE FILTER. | 1 |
| 4 | ZENER DIODE AS VOLTAGE REGULATOR – LOAD REGULATION | 1 |
| 5 | DESIGN AND STUDY OF VOLTAGE DIVIDER BIASING | 1 |
| 6 | DESIGNING OF PCB USING ARTWORK, ITS FABRICATION AND TESTING | 1 |
| 7 | DESIGN, FABRICATION AND TESTING OF A 9 V POWER SUPPLY WITH ZENER REGULATOR | 1 |
| FOR SEM-2 | | |
| 8 | STUDY OF BASIC MONOSTABLE MULTIVIBRATOR | 1 |
| 9 | LIGHT DETECTION USING 555 TIMER | 1 |
| 10 | RAIN ALARM USING 555 TIMER | 1 |
| 11 | MOTOR CONTROL BY PWM USING 555 TIMER | 1 |
| 12 | LED FLASHER CIRCUIT USING 555 TIMER | 1 |
| 13 | ANALOG LIGHTWAVE TRANSMITTER/RECEIVER USING 555 TIMER | 1 |

| | | |
|----|---|---|
| 14 | STUDY OF BASIC INVERTING AND NON-INVERTING AMPLIFIER | 1 |
| 15 | STUDY OF BASIC INTEGRATOR CIRCUIT | 1 |
| 16 | STUDY OF BASIC DIFFERENTIATOR CIRCUIT | 1 |
| 17 | DESIGN OF FIRST ORDER LPF | 1 |
| 18 | STUDY OF FIRST ORDER HPF | 1 |
| 19 | DESIGNING OF FIBER OPTIC BASED TRANSMITTER /RECEIVER USING LM386 | 1 |
| 20 | TEMPERATURE TO VOLTAGE CONVERTER USING 741. | 1 |
| 21 | SHADOW SENSING USING 741 | 1 |
| 22 | LIGHT BASED PWM USING 741 AND V-F CONVERTER | 1 |
| 23 | TEST THE DIFFERENT ARDUINO BOARDS,OPEN-SOURCE AND ARDUINO SHIELDS | 1 |
| 24 | INSTALL ARDUINO IDE AND ITS DEVELOPMENT TOOL | 1 |
| 25 | DEVELOP A PROGRAM TO BLINK LED FOR 1SECOND | 1 |
| 26 | DEVELOP A PROGRAM TO INTERFACE INPUT SWITCHES AND OUTPUT LEDs WITH DEVELOPMENT BOARD (ARDUINO). | 1 |
| 27 | INTERFACE 7 SEGMENT DISPLAY WITH DEVELOPMENT BOARD(ARDUINO) | 1 |
| 28 | INTERFACE LM35 TEMPERATURE SENSOR WITH ARDUINO AND MONITOR TEMPERATURE ON SERIAL MONITOR. | 1 |
| 29 | INTERFACE DC MOTOR USING L293D MOTOR DRIVER. | 1 |
| 30 | INTERFACING OF VARIOUS SENSORS WITH ARDUINO DEVELOPMENT BOARD | 1 |

**REQUISITION OF EQUIPMENT FOR THE DEPARTMENT OF
GEOGRAPHY ACCORDING TO CBCS CURRICULAM**

| SL NO | ITEMS | QUANTITY |
|--------------|-----------------------------------|-----------------|
| 1 | QUARTZ | 2 |
| 2 | FELDSPER | 2 |
| 3 | MICA | 2 |
| 4 | HAEMATITE | 2 |
| 5 | MAGNETITE | 2 |
| 6 | GYPSIUM | 2 |
| 7 | DOLERITE | 2 |
| 8 | PEGMATITE | 2 |
| 9 | SHALE | 2 |
| 10 | LIMESTONE | 2 |
| 11 | QUARTZITE | 2 |
| 12 | GALENA | 2 |
| 13 | CHALCOPYRITE | 2 |
| 14 | CALCITE | 2 |
| 15 | BAUXITE | 2 |
| 16 | PHYLITE | 2 |
| 17 | SCHIST | 2 |
| 18 | GNEISS | 2 |
| 19 | HCL ACID (DILUTE) | 2 |
| 20 | CONTAINER NO.-1 REAGENT | 6 BOTTLES |
| 21 | TEST TUBE WITH CORK AND MARKING | 20 PCS |
| 22 | MAGNET FOR MAX-MIN THERMOMETER | 4 |
| 23 | SOIL TESTING KIT BOX | 2 |
| 24 | BAROMETER | 1 |
| 26 | MAX-MIN THERMOMETER | 1 |
| 27 | HYGROMETER | 1 |
| 28 | 3D MODEL OF INTERIOR OF THE EARTH | 1 |
| 29 | GRANITE | 2 |
| 30 | 3D MAP OF INDIA | 1 |
| 31 | SRIL SEPARATING MACHINE | 1 |
| 32 | PRISMATIC COMPUS | 2 |
| 33 | LEVELLING STAFF | 2 |

**REQUISITION OF EQUIPMENT FOR THE DEPARTMENT OF PHYSICS
ACCORDING TO CBCS CURRICULAM**

| Sl. No. | Name of the Instrument | Quantity |
|---------|---|----------|
| 1 | Vernier Calipers | 12 |
| 2 | Screw Gauge | 12 |
| 3 | Apparatus to study the Motion of Spring and calculate (a) Spring constant, (b) g and (c) Modulus of rigidity. | 6 |
| 4 | Apparatus to determine the Moment of Inertia of a Flywheel. | 3 |
| 5 | Apparatus to determine the Moment of Inertia of a regular shaped body | 2 |
| 6 | Apparatus to determine g and velocity for a freely falling body using Digital Timing Technique | 4 |
| 7 | Apparatus to determine Coefficient of Viscosity of water by Capillary Flow Method (Poiseuille's method) | 2 |
| 8 | Telescope with scale arrangement for Pullinger's Apparatus | 6 |
| 9 | Apparatus to determine the Young's Modulus of a Wire by Optical Lever Method. | 3 |
| 10 | Apparatus to determine the Modulus of Rigidity of a Wire by Maxwell's needle. | 2 |
| 11 | Apparatus to determine the Modulus of Rigidity of a Wire by dynamical method. | 2 |
| 12 | Apparatus to determine the elastic (Y, n, σ , K) Constants of a wire by Searle's method. | 4 |
| 13 | Apparatus to determine the value of g using Bar pendulum. | 3 |
| 14 | Apparatus to determine the value of g using Kater's Pendulum. | 3 |
| 15 | Apparatus to determine the value of Young's Modulus by Flexure method. | 1 |
| 16 | Apparatus to study the characteristics of a series LCR Circuit. | 3 |
| 17 | Potentiometer (Sett and De) | 4 |
| 18 | Carey Foster's Bridge.(Sett and De) | 4 |
| 19 | Apparatus to compare capacitances using De'Sauty's bridge. | 2 |

| | | |
|----|--|----|
| 20 | Apparatus to verify the Thevenin and Norton theorems. | 4 |
| 21 | Apparatus to verify the Superposition, and Maximum power transfer theorems. | 4 |
| 22 | Apparatus to determine self inductance of a coil by Anderson's bridge. | 2 |
| 23 | Apparatus to determine the mutual inductance of two coils by Carey-Foster's method | 2 |
| 24 | Carey-Foster's bridge for construction of one ohm coil with pencil jockey | 4 |
| 25 | One ohm resistance box (Sett and De) | 12 |
| 26 | Standard one ohm | 3 |
| 27 | Fractional Resistance Box(0.1 ohm to 5 ohm)(Sett and De) | 10 |
| 28 | Resistance Box (1ohm to 10K)(Sett and De) | 10 |
| 29 | Dead beat Galvanometer | 6 |
| 30 | Sodium(Na) source for plane diffraction grating | 2 |
| 31 | Mercury Lamp(Hg) for plane diffraction grating | 2 |
| 32 | Pohl's commutator | 6 |
| 33 | Plug commutator | 6 |
| 35 | Microscope for Flexure method | 6 |

| | | | | |
|----|-----------|---|--------|--|
| 36 | Computers | HP 280 G2 MT (Business Tower Desktop), Core i3-6100 6th Gen, 4GB DDR4 RAM, Onboard Graphics, 1TB HDD, Linux, DVD Writer, 18.5" TFT, 3 years Onsite warranty | 20 PCS | |
| 37 | Printer | HP Laser Jet Pro M132nw | 1 pc | |
| 38 | Key Board | hp | 20 | |
| 39 | Mouse | hp | 25 | |
| 40 | UPS | APC 621V 600VA | 20 | |

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QUOTATIONS NOTICE FOR AIR CONDITIONED MACHINE PURCHASE FOR KATWA COLLEGE IN RESPECT OF ADVERTISEMENT NO ----- IN THE DAILY NEWS PAPER THE TELEGRAPH, PAGE NO- METRO- 8 AND SANGBAD PARTIDIN, PAGE NO- 6

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REQUISITION FOR AIR CONDITIONED MACHINE FOR THE COLLEGE

| SL. NO. | BRAND | SPECIFICATIONS | QUANTITY |
|---------|-----------|--|----------|
| 1 | BLUE STAR | <i>Fixed Speed, 1.5 ton, Split, 5 Star</i> | 10 |
| 2 | HITACHI | <i>Fixed Speed, 1.5 ton, Split, 5 Star</i> | |
| 3 | BLUE STAR | <i>Fixed Speed, 2 ton, Split, 5 Star</i> | |
| 4 | HITACHI | <i>Fixed Speed, 2 ton, Split, 5 Star</i> | |

Sd/-
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