



**CHAS COLLEGE,  
CHAS, BOKARO, JHARKHAND  
(A Constituent Unit of B.B.M. KOYLANCHAL  
University, DHANBAD)**

**Tender Reference No: CC/G/93/19**

**Date: 21.05.2019**

## **TENDER NOTICE BID**

**For**

Selection of Vendors for Supply & Installation of Laboratory Equipment & Furniture for

**Physics, Geography & Chemistry Laboratory**

In Chas College, Chas (A Constituent College of B.B.M.K.U., Dhanbad)

  
**PRINCIPAL  
CHAS COLLEGE, CHAS**



**CHAS COLLEGE,  
CHAS, BOKARO, JHARKHAND  
(A Constituent Unit of B.B.M. KOYLANCHAL  
University, DHANBAD)**

## **TENDER NOTICE**

CHAS College, CHAS intends to execute the work of Supply & Installation of Laboratory Equipment & Furniture for Physics, Geography & Chemistry Laboratory.

For selection of vendors, different work bids are invited.

Interested Vendors fulfilling our eligibility criteria are requested to download the bid documents of aforementioned work from college's website – [www.chascollege.org/](http://www.chascollege.org/) from date 21.05.2019 . The last date of submission of bid is 07.06.2019 up to 04:00 pm. Any change / correction / corrigendum respect of related work shall be placed on college's website [www.chascollege.org/](http://www.chascollege.org/)

Interested Vendors are requested to see the website before submission of their documents.

  
PRINCIPAL  
CHAS COLLEGE, CHAS



**CHAS COLLEGE,  
CHAS, BOKARO, JHARKHAND  
(A Constituent Unit of B.B.M. KOYLANCHAL  
University, DHANBAD)**

**BID DETAILS**

The Principal invites sealed bids from the reputed, experienced Vendors for

1	Name of Work	Supply & Installation of Lab Equipment & Furniture for Physics, Geography & Chemistry Laboratory.
2	Minimum Eligibility Criteria	Company/Firms/Manufacturer of items/authorized dealer & having experience in similar type of works & who are capable of carrying out similar type of work are eligible.
3	Bid Deposit/Earnest Money	Rs. 50,000/- to be submitted in the form of DD in favor of Principal, Chas College, Chas
4	Tender Fees (Non Refundable)	Rs. 5,000/- in the form of DD in favor of Principal, Chas College, Chas
5	Bid documents to be downloaded from college's website: <a href="http://www.chascollege.org/">www.chascollege.org/</a>	From Date : 21.05.2019
6	Last Date/Time of receiving Bid	07.06.2019 / 04:00 pm
7	Date of opening of bid	11.06.2019
8	Mode of sending the bid documents	By courier or by hand delivery only addressed to Office of Principal, Chas College, Chas
9	Bid Validity Period	90 days
10	LD for delay	Post failure of Completion of Work on stipulated time, a penalty amount shall be charged as Liquidated damages by the University.

Conditional bids are not acceptable. Principal, Chas College, Chas reserves the right to reject any of all the bids without assigning any reasons thereof.

**Note:** Entire work has to be executed by a single Vendor for the ease of Institute.



**CHAS COLLEGE,  
CHAS, BOKARO, JHARKHAND  
(A Constituent Unit of B.B.M. KOYLANCHAL  
University, DHANBAD)**

**SUBMISSION OF BID DOCUMENTS**

Bidders are requested to submit the bid documents on following lines

Volume containing following documents:

Properly sealed tenders (in two bid system): Financial Bid & Technical Bid in separate envelopes)

**Submission of Technical Bid**

- i) Tender Fee amounting to Rs. 5,000/- in the form of DD in favor of Principal, Chas College, Chas
- ii) Earnest Money Deposit of Rs. 50,000/- in the form of DD/BG in favor of Principal, Chas College, Chas
- iii) PAN No. /GST Registration details should be attached.
- iv) The bidder should have executed orders for supply of similar items in Govt. (State/Central)/PSUs /Universities during last 03 (three) years. (Submit self-attested document)
- v) Bidder should have local office & service support in Jharkhand. (Submit self-attested document)
- vi) Bidder must not have been blacklisted by PSUs / Central or State Govt. / University / Court of Law (Submit Affidavit)
- vii) Bidder must be ISO 9001 : 2015 certified

**Submission of Financial Bid**

- i. Financial Bids should be submitted in the form of BOQ format as uploaded in the website
- ii. The tender should be submitted in two cover system i.e.
  - A. Technical bid along with DD & EMD, in addendum with other Technical documents
  - B. Price Bid

The bidders shall seal the envelopes as No. 1 Technical Envelope & 2. Financial Envelope in separate inner envelopes, duly making the envelopes as “Envelope No. 1 , Technical Envelope” & “Envelope No. 2 , Financial Envelope”. He/She shall then place these envelopes in an outer envelope. Both the inner & outer envelopes should be addressed to : **Principal, Chas College, Chas, Jharkhand.**



**CHAS COLLEGE,  
CHAS, BOKARO, JHARKHAND  
(A Constituent Unit of B.B.M. KOYLANCHAL  
University, DHANBAD)**

**GENERAL TERMS & CONDITIONS FOR TENDER**

1. Certified copy of GST, Registration Certificate, GEM Registration, credentials, etc. of the bidder are to be enclosed with the bid.
2. PAN No, TIN No, GST No (as applicable) details are to be submitted with the bid.
3. The price of items in full and complete set including all parts inclusive of supply, installation, commissioning, packaging, transportation, FOR, all taxes & GST etc. (as applicable) has to be mentioned.
4. Price must be valid up to 90 days from date of submission of quotation.
5. The tenderer/bidder is required to deposit earnest money of Rs. 50,000/- in the form of Demand Draft/BG from any scheduled bank in favor of the **Chas College, Chaspayable at Chas.**
6. All the interested bidders must be ISO 9001 : 2015 certified.
7. The bidders may quote the rates along with detailed specification(s), model, make, etc. in the technical bid.
8. Income Tax Return for last 3 financial years must be enclosed in the technical bid.
9. Audited account by the Chartered Accountant of minimum annual turnover Rs. Two Crores ( Rs. 2,00,00,000/- ) in the last three financial years, should be enclosed.
10. Quantity and items may vary at the time of final order.
11. Supply to be provided within 90 days from date of issue of order.



**CHAS COLLEGE,  
CHAS, BOKARO, JHARKHAND  
(A Constituent Unit of B.B.M. KOYLANCHAL  
University, DHANBAD)**

12. Payment shall be made after quality and quantity of items supplied is verified and certified by a competent team constituted by the College.
13. Tender Notice No. And date must be prescribed/mentioned on the envelope containing tenders.
14. Price must be quoted in India rupees inclusive of all taxes and typed in both word and figure. Typing errors or cutting must be supported by due initial with date. Noncompliance or overwriting will lead to rejection of quotation.
15. The bidder shall append a certificate with the quotation/tender that the firm has not been debarred/blacklisted for any reason/period by any central/state govt. dept. /University/PSU etc. If so, particulars of the same may be furnished. Concealment of facts shall not only lead to cancellation of the order, but may also warrant legal action.
16. The college reserves the right to accept or reject any tender without assigning any reason or relax any condition.

  
**PRINCIPAL  
CHAS COLLEGE, CHAS**



**CHAS COLLEGE,  
CHAS, BOKARO, JHARKHAND  
(A Constituent Unit of B.B.M. KOYLANCHAL  
University, DHANBAD)**

**A. PHYSICS LAB EQUIPMENT**

No.	Item	Item Description	Make	Qty	Unit	Unit Rate (Inclusive of Taxes)
1	Island Laboratory Work Table	Island Physics Workbench with 4 Base Cabinets for storage Size : 2400 mm L X 1200 mm D X 820 mm H Made of ISI Marked Pre laminated MDF Board	Any	1	Set	
2	Wall Facing Laboratory Work Table	Island Physics Workbench with 2 Base Cabinets for storage Size : 2400 mm L X 600 mm D X 820 mm H Made of ISI Marked Pre laminated MDF Board	Any	1	Set	
3	Over Head Cabinet	Solid Shutter Over Head Cabinet Size : 600 mm L X 400 mm D X 600 mm H Made of ISI Marked Pre laminated MDF Board	Any	1	Each	
4	Ful Height Cabinet Solid Shutter	Made of Pre laminated MDF Board Size: 900 mm W X 400 mm D X 1800 mm H	Any	1	Each	
5	Teacher's table with pedestal	Made of Pre laminated MDF Board. It is in addendum with pedestal (1 drawer & 2 shutter) Size: 1800 mm W X 900 mm D X 750 mm H	Any	1	Each	
6	Teacher's Revolving Chair	High Back Executive chair with revolving high back, Hydraulic Push Back , Material : Leatherette	Any	1	Each	
7	Visitor's Fixed Chair	25mm CRC pipe of 14 gauge chrome plated with molded seat back hard PVC stiched with foam & stain colour handles	Any	1	Each	
8	Laboratory Stools	Stainless Steel base and cushion top	Any	1	Each	
9	Glass Sliding Windows with Aluminium framing & MS Grill to be placed outside the windows	2 Track Windows with Aluminium thickness 1.2 mm and Glass Thickness 4 mm with Mild Steel Grill from outside	Hindalco/ Jindal/Tata/ Saint Gobain	1	Sq. Ft.	
10	Verniercaliper calliper SS in wooden box	Vernier Calliper ( Wheel Type , 12 Cm , Stainless Steel)	Adarsh / Omega	1	Each	



**CHAS COLLEGE,  
CHAS, BOKARO, JHARKHAND  
(A Constituent Unit of B.B.M. KOYLANCHAL  
University, DHANBAD)**

11	Screw gauge	Screw gauge ( 25 mm Superior Quality , In Plastic Box )	Adarsh / Omega	1	Each	
12	Travelling Microscope ( Brass Beds )	Travelling Microscope ( 3 Motion , Superior Quality )	Adarsh / Omega	1	Each	
13	Height of a building using Sextant. Complete in all respect	Sextant (Brass Parts , With Stand) ; Plumb Line, Spirit Level( 3 " Brass ) , Measuring Tape ( 30 Meter Steel Tape)	Adarsh / Omega	1	Set	
14	Moment of inertia of a Flywheel. Complete in all respect	Fly Wheel ( with counter, Dia 20cm ) , Slotted Weigh (with hanger 500gm ,Brass) ,Screw Gauge ( with locking arrangement, 25mm, Stainless Steel ) , Meter Scale (Superior Quality ) , Thread , Stop Watch (Racer Make)	Adarsh / Omega	1	Set	
15	g By Bar Pendulum	Bar Pendulum ( Brass , Chrome Plated ) , Spirit Level (03" , Brass ) , Reading Telescope ( With Scale Arrangement , Superior Quality ) , Meter Scale, Superior Quality , Stop Watch (Racer Make)	Adarsh / Omega	1	Set	
16	g By Kater Pendulum	Kater's pendulum (Brass ) , Spirit Level (03" , Brass ) , Reading Telescope ( With Scale Arrangement , Superior Quality ) , Meter Scale, Superior Quality , Stop Watch (Racer Make)	Adarsh / Omega	1	Set	
17	Modulus of rigidity of a wire by maxwell's needle. Complete set up	Tortion Pendulum, Dia 5", Brass, with wall bracket ; Reading Telescope ( With Scale Arrangement , Superior Quality ) ; Meter Scale, Superior Quality , Stop Watch (Racer Make); , Screw Gauge ( with locking arrangement, 25mm, Stainless Steel )	Adarsh / Omega	1	Set	
18	Stopwatch Electronic ( Racer )	Stop Watch, Racer Make	Adarsh / Omega	1	Each	
19	Telescope Universal ( Deluxe)	Telescope ( Superior Quality)	Adarsh / Omega	1	Each	
20	Potentiometer ( Complete Set Up )	Digital Potentiometer ( Max Make )	Adarsh / Omega	1	Each	
21	Carry Foster's Bridge ( Complete Set Up)	Carry Foster's Bridge ( Complete Set Up)	Adarsh / Omega	1	Each	
22	Self Inductance of a coil by Anderson's bridge.Complete Set up	Anderson Bridge(With Null Detector & Oscillator)	Adarsh / Omega	1	Each	
23	Digital Multimeter,Imported wide range for all purposes	Digital Multimeter ( Superior Quality )	Adarsh / Omega	1	Each	
24	De-Sauty's Bridge	DE-SAUTY BRIDGE (With Null Detector & Oscillator)	Adarsh / Omega	1	Each	





**CHAS COLLEGE,  
CHAS, BOKARO, JHARKHAND  
(A Constituent Unit of B.B.M. KOYLANCHAL  
University, DHANBAD)**

25	Thevnin's Theorem . Complete Set up	Thevnin's Theorem	Adarsh / Omega	1	Each	
26	Norton's Theorem . Complete Set up	Norton's Theorem	Adarsh / Omega	1	Each	
27	Series LCR Circuit and Determine a.) Resonant Frequency b.) Impedance at resonance c.) Quality Factor Q d.) Band Width . Complete in all respect	Series LCR circuit kit along with Function Generator	Adarsh / Omega	1	Each	
28	Parallel LCR Circuit and determine a.) Anti resonant frequency b. )Quality factor Q . Complete in all respect	Parallel LCR circuit kit along with Function Generator	Adarsh / Omega	1	Each	
29	Prism Spectrometer Set Up	R.I of Prism using Na light [ Spectrometer {6" Superior} , Spectrometer Prism { Crown R.I 1.5 } , Sodium Lamp { 35 Watt } , Sodium lamp box , Sodium Lamp Transformer { 35 Watt }	Adarsh / Omega	1	Each	
30	Optical Bench 100cm/150 cm , Single Bar Type	Optical Bench ( Rail type , 1 Meter Long )	Adarsh / Omega	1	Each	
31	Michelson Interferometer. Complete Set up in all respect	[Michelson Interferometer . Sodium Lamp { 35 Watt } , Sodium lamp box , Sodium Lamp Transformer { 35 Watt }	Adarsh / Omega	1	Set	
32	Fresnel Biprism Copmlete Set up in all respect	Bi- Prism Assembly ( Bi Prism Holder , Auto Action lens Holder, Micrometer Eyepiece and optical Slit) , Bi- Prism ( Fresnel , 50x40 mm ) , Optical Bench ( 1.5 Meter , SS ) , Sodium Lamp (35 Watt ) , Sodium lamp box , Sodium Lamp Transformer (35 Watt )	Adarsh / Omega	1	Set	
33	Newton's Ring . Complete Set up in all respect	Newton Ring Microscope ,Optical Bench Double Rod ( SS ROD 1.5 Meter ) ,Sodium Lamp (35 Watt ) , Sodium lamp box , Sodium Lamp Transformer (35 Watt )	Adarsh / Omega	1	Set	
34	Na Vapour Lamp 35 Watt . Fitted in box with transformer	Sodium Lamp { 35 Watt } ,Sodium lamp box, Sodium Lamp Transformer { 35 Watt	Adarsh / Omega	1	Set	
35	Hg Source	Mercury Lamp{Without Chowk , Mercury Lamp Box {Fitted Without Chowk	Adarsh / Omega	1	Set	
36	Spectrometer Prism . Flint Glass	Spectrometer Prism (32x32 , D-Flint ,R.I 1.62 )	Adarsh / Omega	1	Each	
37	Crown Glass	Spectrometer Prism (32x32 , Crown ,R.I 1.5 )	Adarsh / Omega	1	Each	
38	Diffraction grating ( 1500 lines / cm )	Differaction grating ( 1000 Line / mm , Superior Quality )	Adarsh / Omega	1	Each	



**CHAS COLLEGE,  
CHAS, BOKARO, JHARKHAND  
(A Constituent Unit of B.B.M. KOYLANCHAL  
University, DHANBAD)**

39	Temperature coefficient of resistance by platinum thermometer ( PRT )	PRT Exp. Set up	Adarsh / Omega	1	Each	
40	Thermo-Emf of a thermometer with difference of temperature of its two junction	Thermo EMF Thermocouple Kit	Adarsh / Omega	1	Each	
41	CRO (Dual Channel 30 MHz )	CRO (Dual Trace , 30 MHz )	Adarsh / Omega	1	Each	
42	Basic logic gates and universal gates. Complete Set up in all respect	Basic logic gates and universal gates. (Complete Kit )	Adarsh / Omega	1	Each	
43	Combinational logic gates . Complete in all respect	Combinational logic gates (Complete Kit )	Adarsh / Omega	1	Each	
44	Various Flip Flop ( RS ,Clocked RS, D type and JK) circuit using NAND gate . Complete Set up in all respect	Various Flip Flop ( RS ,Clocked RS, D type and JK) circuit using NAND gate . Complete Set up in all respect (Complete Kit )	Adarsh / Omega	1	Each	
45	Astable multivibrator (555 Timer). Complete Set Up	Astable multivibrator (555 Timer). Complete Set Up (Complete Kit )	Adarsh / Omega	1	Each	
46	Monostable multivibrator ( 555 Timer ) . Complete Set Up	Monostable multivibrator ( 555 Timer ) . Complete Set Up (Complete Kit )	Adarsh / Omega	1	Each	
47	Planks Constant using photoelectric effect. Complete set up	Planks Constant using photoelectric effect(Complete Kit)	Adarsh / Omega	1	Each	
48	Planks Constant Using LED of at least Different Colour	Planck's constant using LEDs of at least 4 different colours.	Adarsh / Omega	1	Each	
49	He-Ne laser 1mW	He - Ne Laser ( 2mW , Red colour )	Adarsh / Omega	1	Each	
50	Single Slit	Young Slit ( Single Slit )	Adarsh / Omega	1	Each	
51	Double Slit	Young Slit ( Double Slit )	Adarsh / Omega	1	Each	
52	Plane junction Diode Characteristics. Complete in all respect	P-N Junction Diode Characteristic Apparatus, Four meters on Board	Adarsh / Omega	1	Each	
53	Zener Diode Characteristics and voltage Stabilizer.Complete Set up in all respect	Zener Diode Characteristics and voltage Stabilizer.Complete Set up in all respect	Adarsh / Omega	1	Each	
54	Voltmeter 0-5 VDC	Voltmeter 0-5 V DC	Adarsh / Omega	1	Each	
55	Voltmeter 0-15 VDC	Voltmeter 0-15 V DC	Adarsh / Omega	1	Each	
56	Ammeter 0-15mADC	Milli-Ammeter 0-50 mA DC	Adarsh / Omega	1	Each	
57	Zeeman effect With External magnetic field, Hyperfine Splitting , Copmlete Set up	Zeeman Effect (Complete Set up);	Adarsh / Omega	1	Set	



**CHAS COLLEGE,  
CHAS, BOKARO, JHARKHAND  
(A Constituent Unit of B.B.M. KOYLANCHAL  
University, DHANBAD)**

58	BH-curve set up of Fe using Solenoid and determine energy loss from Hysteresis. Complete setup in all respect	B.H. CURVE APPARATUS ,CRO (Dual Trace , 30 MHz )	Adarsh / Omega	1	Set	
59	Hall Effect . Complete Set up	Hall's Effect Apparatus	Adarsh / Omega	1	Each	
60	FET Characteristic . Complete Set Up	IGBT Characteristic apparatus	Adarsh / Omega	1	Each	
61	UJT Characteristic . Complete Set Up	UJT Characteristic apparatus, Relaxation Oscillator using UJT KIT	Adarsh / Omega	1	Each	
62	Polarimeter Biquartz. Complete Set Up	Polarimeter Biquartz, Sodium Lamp (35 Watt ) , Sodium lamp box, Sodium Lamp Transformer (35 Watt )	Adarsh / Omega	1	Each	
63	Babinet's compensator, Complete Set Up	Babinet's compensator, Complete Set Up	Adarsh / Omega	1	Each	
64	Stefan Constant . Complete Set Up	Stefan Constant . Complete Set Up	Adarsh / Omega	1	Each	
65	Resolving Power of telescope . Complete Set Up.	Resolving Power of telescope . Complete Set Up.	Adarsh / Omega	1	Each	
66	G.M Counter. Complete Set Up.	G.M Counter. Complete Set Up. ( Without radio active sample )	Adarsh / Omega	1	Each	
<b>SUB TOTAL PHYSICS LAB EQUIPMENT</b>						

### B. GEOGRAPHY LAB EQUIPMENT

No.	Item	Item Description	Make	Qty	Unit	Unit Rate (Inclusive of Taxes)
1	Front-Facing Laboratory Work Table	Geography Workbench with Table-Top thickness 25 mm Size : 1800 mm L X 450 mm D X 750 mm H Made of ISI Marked Pre laminated MDF Board	Any	1	Set	
2	Tracing Table	Provision of glass & tilting facility complete with electric fitting Size : 800 mm W X 600 mm D X 800 mm H	Any	1	Set	
3	Over Head Cabinet	Glass Shutter Over Head Cabinet Size : 600 mm L X 400 mm D X 600 mm H Made of ISI Marked Pre laminated MDF Board	Any	1	Each	



**CHAS COLLEGE,  
CHAS, BOKARO, JHARKHAND  
(A Constituent Unit of B.B.M. KOYLANCHAL  
University, DHANBAD)**

4	Ful Height Cabinet Glass Shutter	Made of Pre laminated MDF Board Size: 900 mm W X 400 mm D X 1800 mm H	Any	1	Each	
5	Teacher's table with pedestal	Made of Pre laminated MDF Board. It is in addendum with pedestal (1 drawer & 2 shutter) Size: 1800 mm W X 900 mm D X 750 mm H	Any	1	Each	
6	Revolving Chair	High Back Executive chair with revolving high back, Hydraulic Push Back , Material : Leatherette	Any	1	Each	
7	Visitor's Fixed Chair	25mm CRC pipe of 14 gauge chrome plated with molded seat back hard PVC stiched with foam & stain colour handles	Any	1	Each	
8	Laboratory Stools	Stainless Steel base and cushion top	Any	1	Each	
9	Glass Sliding Windows with Aluminium framing & MS Grill to be placed outside the windows	2 Track Windows with Aluminium thickness 1.2 mm and Glass Thickness 4 mm with Mild Steel Grill from outside	Hindalco/Jindal/Tata/Saint Gobain	1	Sq. Ft.	
10	<b>Plane Table Survey Kit :</b> complete with all accessories including (all superior quality)	Plane Table Set ( All Accessories made of brass )	Adarsh / Omega	1	Each	
11	Chain 30 meter long with 150 hooks + 10 arrows	Engineers's Chain ( 30 meter long with 10 Arrow )	Adarsh / Omega	1	Each	
12	Ranging Rod 2 meter long	Ranging Rod ( 2 meter , Folding Type)	Adarsh / Omega	1	Each	
13	Drwaing Clips (set of 4) Packet	Drwaing Clips (set of 5)	Adarsh / Omega	1	Each	
14	Prismatic Compass 150 mm with stand	Prismatic Compass Size 4" with stand	Adarsh / Omega	1	Each	
15	Adjustable Set Square 12'	Adjustable Set Square 12'	Adarsh / Omega	1	Each	
16	Protractor 5' (125 mm) circular	Protractor 5' (125 mm) circular	Adarsh / Omega	1	Each	
17	Magnetic Compass	Magnetic Compass ( 18 mm , Both Side Glass )	Adarsh / Omega	1	Each	
18	Divider Brass (150 mm)	Divider Brass (150 mm)	Adarsh / Omega	1	Each	



**CHAS COLLEGE,  
CHAS, BOKARO, JHARKHAND  
(A Constituent Unit of B.B.M. KOYLANCHAL  
University, DHANBAD)**

19	Divider Proportional (15 mm)	Divider Proportional (15 mm)	Adarsh / Omega	1	Each	
20	<b>Dumpy Level</b> (quick set) erect image 300 mm with stand and security bubble and all standard accessories (Axis Set, Foot Serene, Eye Piece, Diaphragme, Adjustable Tools, Aluminium Stand)	Dumpy Level ( Brass , 12" )	Adarsh / Omega	1	Each	
21	Telescope	Astronomical Telescope with tripod Stand ( Imported ,Superior Quality)	Adarsh / Omega	1	Each	
22	Diifferent types of rock	Rocks and Minerals ( Set of 50 , In plastic Tray )	Adarsh / Omega	1	Each	
23	Outline Map of Jharkhand Physical (100*70)	Map( 100*70 ) Laminated	Adarsh / Omega	1	Each	
24	Outline Map of Jharkhand Political (100*70)	Map( 100*70 ) Laminated	Adarsh / Omega	1	Each	
25	Digital Camera	( Point and shoot)	Canon / Nikon	1	Each	
<b>SUB TOTAL GEOGRAPHY LAB EQUIPMENT</b>						

### C. CHEMISTRY LAB EQUIPMENT

No.	Item	Item Description	Make	Qty	Unit	Unit Rate (Inclusive of Taxes)
1	Asbestos sheet pieces 10" x 10" x 1/16"	ASBESTOS SHEET WITH FRAME (PACK OF 12), 6"x6"	ADARS H	1	Each	
2	Barometer; complete with show cases	FORTIN'S BAROMETER with Mercury, Complete Brass (Deluxe Model)in wooden showcase	A.I	1	Each	
3	Beaker, 100 ml	1000D16 Beakers, Griffin, Low Form, with spout, 100ml	BOROS IL	1	Each	
4	Beaker, 250 ml	1000D21 Beakers, Griffin, Low Form, with spout, 250ml	BOROS IL	1	Each	
5	Beaker, 500 ml	1000D24 Beakers, Griffin, Low Form, with spout, 500ml	BOROS IL	1	Each	



**CHAS COLLEGE,  
CHAS, BOKARO, JHARKHAND  
(A Constituent Unit of B.B.M. KOYLANCHAL  
University, DHANBAD)**

6	Beaker, 1000 ml	1000D16 Beakers, Griffin, Low Form, with spout, 1000ml	BOROSIL	1	Each	
7	Beehive shelf; 3"	BEEHIVE SHELVES (Porcelain), 3" Dia	ADARSH	1	Each	
8	Beehive shelf Porcelain	BEEHIVE SHELVES (Porcelain), 4" Dia	ADARSH	1	Each	
9	Bell Jar; 8"x4"	BELL JAR WITH STOPPER, 'S.G.', 20 x 10cm	ADARSH	1	Each	
10	Bottle Aspiratory (5 L)	ASPIRATOR BOTTLE, 'S.G.', 5Ltr	ADARSH	1	Each	
11	Brush for test tube	TEST TUBE BRUSH (Nylon) Superior Quality	ADARSH	1	Each	
12	Buckner funnel; 3"	3606720 Funnels, Buchner Type, with Sintered Disc 68mm	BOROSIL	1	Each	
13	Bunsen burners; Brass c.p.	BUNSEN BURNER (Brass Pipe 150mm & dia.12mm) Superior, With Stop Cock (Heavy Base)	ADARSH	1	Each	
14	Burette 50 cc special	Burettes Boroflo, Fitted With Boroflo GP (General Purpose), Screw Thread with PTFE Keys, 50ml	BOROSIL	1	Each	
15	Burette brushes;	BURETTE BRUSH (Nylon)	ADARSH	1	Each	
16	Burette clamps; Fisher type clamps	FISHER CLAMP (Burette Clamp), Double	POLYLAB	1	Each	
17	Burette stand metallic large 8" x 5" base brass rod with heavy brass made clamp and Bosshead special quality (Set)	BURETTE STAND WITH CLAMP (Metallic), Superior Quality (Sheet Metal) Adjustable Base 7"x5"x24", with bosshead (Dicast) to hold upto 16mm rod	ADARSH	1	Each	
18	Burette stand wooden	BURETTE STAND WITH CLAMP (Wooden)	ADARSH	1	Each	
19	Burette stands; plastic 9"x6" complete set w/Ring	Retort Stand 225 x 150 mm - Side Hole with funnel holder single	POLYLAB	1	Each	



**CHAS COLLEGE,  
CHAS, BOKARO, JHARKHAND  
(A Constituent Unit of B.B.M. KOYLANCHAL  
University, DHANBAD)**

20	Burettes- plastic 50 ml polylab	BURETTE, 50ml	POLYL AB	1	Each	
21	Calorimeter	JOULE'S CALORIMETER, All metal (Outer Aluminium & Inner Copper)	ADARS H	1	Each	
22	Capillary tubes	CAPILLARY TUBE (Set of 3 Different Dia) 6" Length	ADARS H	1	Each	
23	Capillary tubes (for melting points);	CAPILLARY TUBE FOR MELTING POINT (Pkt), Superior Quality in Plastic Box (Both End Open)	ADARS H	1	Each	
24	Carbon electrodes 6"	CARBON ROD, With Terminal, 150x15mm	ADARS H	1	Each	
25	Cavity plates; 6 holes	CAVITY PLATE/ SPOT PLATE (Porcelain), 6 Cavity	ADARS H	1	Each	
26	Chrometography cabinet; (32" x 9" x 33")	Chromatography Cabinet for 04 filter paper, 46x57cms	A.I	1	Each	
27	Clamps with boss head; small size	CLAMP & BOSSHEAD, Dipress, (Universal Clamp) Holds upto 50mm Dia	ADARS H	1	Each	
28	Condenser big size ;(30cm)	Liebig Condenser, 'B.G.', JOINTED, 300mm	ADARS H	1	Each	
29	Condenser Reflex;	REFLUX FLASK WITH CONDENSER (B-24 joint), Cap. 500ml	ADARS H	1	Each	
30	Conical flask 250 ml Borosil Glass	4980021, FLASKS: ERLNMYR, CONICAL, NM 250 ML	BOROS IL	1	Each	
31	Conical flasks- 250ml borosil	4980021, FLASKS: ERLNMYR, CONICAL, NM 250 ML	BOROS IL	1	Each	
32	Crucible; 25 ml	SILICA CRUCIBLE, Without Lid, 25ml	ADARS H	1	Each	
33	Crucibles 25 cc with lid	SILICA CRUCIBLE, With Lid, 25ml	ADARS H	1	Each	
34	Deflagrating spoon brass	DEFLAGRATING SPOON	ADARS H	1	Each	





**CHAS COLLEGE,  
CHAS, BOKARO, JHARKHAND  
(A Constituent Unit of B.B.M. KOYLANCHAL  
University, DHANBAD)**

35	Descicator plates; 6"	DESICATOR PLATE (Porcelain) Size 6"	ADARS H	1	Each	
36	Desiccator "4" dia (100 mm)	DESICATOR (Vaccum), 150mm	POLYL AB	1	Each	
37	Dishes (China); 3"	CHINA DISH (Porcelain), Dia 3"	ADARS H	1	Each	
38	Distillation apparatus; 4 Litres stainless steel, Electrical automatic	DISTILLATION WATER STILL (BARNSTEAD TYPE) TABLE MODEL S.S, Output Capacity 8 to 9 Ltr/Hr. (Approx.)	A.I	1	Each	
39	Distillation flasks with side arm (250ml);B/Glass	4620021 Flasks, Distilling, With Side Arm, 250ml	BOROS IL	1	Each	
40	Droppers	DROPPER GLASS WITH RUBBER TEAT, 6"	ADARS H	1	Each	
41	Dropping bottle; plastic 60ml	DROPPING BOTTLE , 60ml	POLYL AB	1	Each	
42	Electric heater	HOT PLATE 8" ROUND (Electric), With Energy Regulator	A.I	1	Each	
43	Electronic balance 1 gm to 1 kg	Digital balance, ECB 6000, Least count 0.1 g, Capacity 6 kg	WENS AR	1	Each	
44	Evaporation dishes 60 cc (3")	CHINA DISH (Porcelain), Dia 3"	ADARS H	1	Each	
45	Flies (Triangular) 6"	TRIANGULAR FILE WITH WOODEN HANDLE	ADARS H	1	Each	
46	Filter papers Dr. Watts, 11 cm	FILTER PAPER PKT., Dia 11cm, Hand Made	Doctor Watt	1	Each	
47	Filter papers Dr. Watts, 12.5 cm	FILTER PAPER PKT., Dia 12.5cm, Hand Made	Doctor Watt	1	Each	
48	Flask filtering (500 ml); Borosil Glass	5340024 Flasks, Filtering, Bolt Neck, with Tubulation, 500ml	BOROS IL	1	Each	
49	Flask-flat Bottom (250ml); Borosil Glass	4980021 Flasks, Erlenmeyer, Conical, Narrow Mouth, 250ml	BOROS IL	1	Each	
50	Flask-round Bottom (250ml); Borosil Glass	4260021 Flasks, Boiling, Round Bottom, 250ml	BOROS IL	1	Each	





**CHAS COLLEGE,  
CHAS, BOKARO, JHARKHAND  
(A Constituent Unit of B.B.M. KOYLANCHAL  
University, DHANBAD)**

51	Flat bottom flasks B/G 250ml	4980021 Flasks, Erlenmeyer, Conical, Narrow Mouth, 250ml	BOROSIL	1	Each	
52	Funnel stand wooden	FUNNEL STAND (Wooden)	ADARSH	1	Each	
53	Funnel stands; With retort ring 9"x6" complete	Retort Stand 225 x 150 mm - Side Hole with funnel holder single	POLYLAB	1	Each	
54	Glass funnel 3" B/G	6140071 Funnels, Plain, 600 Angle, Short Stem, 75mm	BOROSIL	1	Each	
55	Glass jars (Gas Jar) 6" x 2"	GAS JAR (Specimen Jar), 'S.G.', 15 x 5cm	ADARSH	1	Each	
56	Glass tubing	GLASS TUBING 4 to 7mm (Per 2.5kg)	ADARSH	1	Each	
57	Graduated pipette; borosil glass 10ml	7102006 Pipettes, Transfer, Volumetric, 10ml	BOROSIL	1	Each	
58	Hand gloves ; (Medium & large)	CHRG RUBBER GLOVES (Pair)	ADARSH	1	Each	
59	Hoffman's Voltammeters; borosil glass	HOFFMAN VOLTAMMETER, With Platinum Electrode & Metallic Stand, borosilicate glass	ADARSH	1	Each	
60	Hot plates; round 8"	HOT PLATE 8" ROUND (Electric), With Energy Regulator	A.I	1	Each	
61	Ignition tubes;	IGNITION TUBE (Pk. of 5 Grs.) Superior Quality	ADARSH	1	Each	
62	Kipp's Apparatus 250 ml Polylab	KIPPS APPARATUS, 250ml	POLYLAB	1	Each	
63	Leibig's Condensor 300 mm (12") with Stand	Liebig Condenser, 'B.G.', JOINTED, 300mm	ADARSH	1	Each	
64	Ignition tubes pkt of 100 pcs Geny Glass	IGNITION TUBE (Pk. of 5 Grs.) Superior Quality	ADARSH	1	Each	
65	Litmus paper blue pkt of 100 strip	LITMUS PAPER BLUE (Pk. of 100Lvs), In Plastic Box	ADARSH	1	Each	
66	Litmus paper red pkt of 100 strip	LITMUS PAPER RED (Pk. of 100Lvs), In Plastic Box	ADARSH	1	Each	
67	Magnesium ribbon	Magnesium metal ribbon - 98%, 25G	NICE	1	Each	



**CHAS COLLEGE,  
CHAS, BOKARO, JHARKHAND  
(A Constituent Unit of B.B.M. KOYLANCHAL  
University, DHANBAD)**

68	Magnetic stirrer ; With hot plates, S.S. top, 2 litres	MAGNETIC STIRRER WITH HOT PLATE, 2Ltr.	A.I	1	Each	
69	Measuring cylinder ; Glass (Soda)(100 ml)	MEASURING CYLINDERS, 'S.G.', 100ml	ADARS H	1	Each	
70	Measuring cylinder ; Glass (Soda)(10 ml)	MEASURING CYLINDERS, 'S.G.', 50ml	ADARS H	1	Each	
71	Measuring cylinder ; Glass (Soda)(1000 ml)	MEASURING CYLINDERS, 'S.G.', 1000ml	ADARS H	1	Each	
72	Measuring flask 10 ml B/G	5641006 Flasks, Volumetric, With Interchangeable Solid Glass Stopper, 10ml	BOROS IL	1	Each	
73	Measuring flask 100 ml B/G	5641016 Flasks, Volumetric, With Interchangeable Solid Glass Stopper, 100ml	BOROS IL	1	Each	
74	Measuring flask 1000 ml B/G	5641029 Flasks, Volumetric, With Interchangeable Solid Glass Stopper, 1000ml	BOROS IL	1	Each	
75	Measuring flask 2000 ml B/G	5641030 Flasks, Volumetric, With Interchangeable Solid Glass Stopper, 2000ml	BOROS IL	1	Each	
76	Measuring flask 25 ml B/G	5641009 Flasks, Volumetric, With Interchangeable Solid Glass Stopper, 25ml	BOROS IL	1	Each	
77	Measuring flask 250 ml B/G	5641021 Flasks, Volumetric, With Interchangeable Solid Glass Stopper, 250ml	BOROS IL	1	Each	
78	Measuring flask 50 ml B/G	5641012 Flasks, Volumetric, With Interchangeable Solid Glass Stopper, 50ml	BOROS IL	1	Each	
79	Measuring flask 500 ml B/G	5641024 Flasks, Volumetric, With Interchangeable Solid Glass Stopper, 500ml	BOROS IL	1	Each	
80	Mechanical Stirrer; 2 Litre with Hot plate	MAGNETIC STIRRER WITH HOT PLATE, 2Ltr.	A.I	1	Each	
81	Mecker burners ; (To work on Bunsen gas cylinder)	MECKER BURNER, FOR WIDE FLAME (Brass Pipe 150x25mm dia.), With Stop Cock	ADARS H	1	Each	



**CHAS COLLEGE,  
CHAS, BOKARO, JHARKHAND  
(A Constituent Unit of B.B.M. KOYLANCHAL  
University, DHANBAD)**

82	Melting point apparatus	AUTOMATIC MELTING POINT APPARATUS 5000LT-110, high Precision. Melting Point Is Displayed on 3 1/2 digit display on front , Automatic Furnace cut Off with audio and Visual DISCOUNT, indication. Range 40 degree to 350 degree C, Readability 1 degree C Fully automatic operation.	LABTRONICS /EI	1	Each	
83	Mercury metal Imp 500 wt	MERCURY LAMP (Works Without Chowk) 160W, MERCURY LAMP WOODEN SLIT BOX, FITTED WITHOUT CHOWK	ADARSH	1	Each	
84	Model Atomic plastic balls and springs English type Set of Senior Polylab (Set)	ATOMIC MODEL SET, (Senior) 370 Balls & 185 Connecting Lugs	POLYLAB	1	Each	
85	Optical Spectrometer;6"	SPECTROMETER (In Wooden Box) 6", Superior Quality	ADARSH	1	Each	
86	Oven;14"x14"x14"	HOT AIR UNIVERSAL OVEN, Double walled, Outer chamber made of M.S. Powder Coated. Temp. upto 250deg C. Thermostatic controlled, Heating Element on three sides. Thermometer is provided on top. The scale is calibrated in 5 deg C Steps, Stainless Steel, size 14"x14"x14" , capacity 45Ltr with Air Circulating Fan, Digital Temp. Indicator-Cum-Controller with Timer 0-24 hours	A.I	1	Each	
87	Periodic table (charts)	PERIODIC TABLE CHART, Jumbo Raxine, 120 x 160cm	ADARSH	1	Each	



**CHAS COLLEGE,  
CHAS, BOKARO, JHARKHAND  
(A Constituent Unit of B.B.M. KOYLANCHAL  
University, DHANBAD)**

88	Pestle & Mortar; 6"	PESTLE & MORTAR (Porcelain), Dia 6"	ADARS H	1	Each	
89	Petri dish 4"	PETRI DISH IMPORTED (Anumbra) Crystal Clear Glass, 4"	ADARS H	1	Each	
90	pH Paper 1-11 with colour scale Roll	pH PAPER (INDICA), In Card Board Box, PH 0-14, Pk of 100 lvs	INDICA	1	Each	
91	pH-meters; pen type	pH METER (Pen Type)	AQUA SOL	1	Each	
92	Physical balance in glass case marble base capacity 200 gms, sensitivity 10 mgm with original weight box	BALANCE PHYSICAL (Cap 250Gm), Original Varanasi 7 Stone, Teak Wood, along with WEIGHT BOX (Physical), Brass C.P., 1gm to 200gm	SUNSHINE	1	Each	
93	Pinch clips. Iron c.p.	PINCH CLIP, (Iron), Mohr Type	ADARS H	1	Each	
94	Pipette; volumetric, borosil glass 25ml	Pipettes, Transfer, Volumetric, 25ml	BOROSIL	1	Each	
95	Pipette brushes	PIPETTE BRUSH	ADARS H	1	Each	
96	Pipette graduated 10 ml B/G	7080P06 Pipettes, Serological 10ml	BOROSIL	1	Each	
97	Pipette graduated 20 ml B/G	7080P09 Pipettes, Serological 25ml	BOROSIL	1	Each	
98	Pipette graduated 1 ml B/G	7080P09 Pipettes, Serological 25ml	BOROSIL	1	Each	
99	Pipette graduated 5 ml B/G	7080P55 Pipettes, Serological 5ml	BOROSIL	1	Each	
100	Pipette stands; 12 pipette	PIPETTE STAND Horizontal for 12 Pipette	POLYL AB	1	Each	
101	DISTILLATION SET	DISTILLATION SET (Condenser, Receiver, Adaptor), 'B.G.', 500ml with HEATING MANTLE 500ml	A.I	1	Each	



**CHAS COLLEGE,  
CHAS, BOKARO, JHARKHAND  
(A Constituent Unit of B.B.M. KOYLANCHAL  
University, DHANBAD)**

102	Reagent bottle 125 ml N.M	1500017 Bottles Reagent, Plain Narrow Mouth, Graduated with Interchangeable Flat Head Stopper, 125ml	BOROS IL	1	Each	
103	Reagent bottle 250 ml N.M	1500021 Bottles Reagent, Plain Narrow Mouth, Graduated with Interchangeable Flat Head Stopper, 250ml	BOROS IL	1	Each	
104	Reagent bottle 60 ml N.M	1500013 Bottles Reagent, Plain Narrow Mouth, Graduated with Interchangeable Flat Head Stopper, 60ml	BOROS IL	1	Each	
105	Reagent bottles ; 500ml Soda	REAGENT BOTTLE (Narrow Mouth), 'S.G.', 500ml	ADARS H	1	Each	
106	Reagent bottles ; 125 ml Soda	REAGENT BOTTLE (Narrow Mouth), 'S.G.', 125ml	ADARS H	1	Each	
107	Retorts 250 ml B/G	RETORT 250ml , 'B.G.'	ADARS H	1	Each	
108	Round bottom flask B/Glass 250 ml	4260021 Flasks, Boiling, Round Bottom 250ml	BOROS IL	1	Each	
109	Rubber cork assorted size	RUBBER CORK ASSORTED (Dz.) Ordinary RED Colour	ADARS H	1	Each	
110	Rubber tubing soft 8mm	RUBBER TUBING COIL (10meters) Extra Soft Superior Quality, 8mm	ADARS H	1	Each	
111	Separating funnel 250 ml B/G	6402021 Funnels, Separating, Pear Shape, Fitted with Boroflo Stopcock with PTFE Key and Interchangeable Stopper 250ml	BOROS IL	1	Each	
112	Separating funnel 500 ml	6402024 Funnels, Separating, Pear Shape, Fitted with Boroflo Stopcock with PTFE Key and Interchangeable Stopper 500ml	BOROS IL	1	Each	



**CHAS COLLEGE,  
CHAS, BOKARO, JHARKHAND  
(A Constituent Unit of B.B.M. KOYLANCHAL  
University, DHANBAD)**

113	Silica crucible (with lid);25ml	SILICA CRUCIBLE, With Lid, 25ml	ADARS H	1	Each	
114	Single Pan Analytical Balance	SINGLE PAN ANALYTICAL BALANCE, (Dhona Type) Cap. 200 gms, L.C 0.1 mg	SIGMA	1	Each	
115	Sodium silicate 500gms	Sodium silicate (meta) pentahydrate, (Sodium meta silicate. 5H O) - 97% 2, 500 gm	NICE	1	Each	
116	Soxhlet apparatus; With condenser complete, 250ml	SOXHLET EXTRACTIONS UNITS, (Without Glass Parts) Mantle Capacity upto 500ml, Operated by One Regulator, 6 Mantles (Mantle Type), SOXHLET Glass Parts Only (Borosilicate glass), Flask Cap. 250ml & Soxhlet Capacity 100ml	A.I	1	Each	
117	Spatula stainless steel 6"	Spatula 6" S.S (Both Side Flat)	ADARS H	1	Each	
118	Spatulas; 6" spoon type stainless steel	SPATULA S.S. (Spoon Type), 6", Heavy Quality	ADARS H	1	Each	
119	Specific Gravity bottle 25cc B/G	SPECIFIC GRAVITY BOTTLE, 'B.G.', 25ml	ADARS H	1	Each	
120	Spectrophotometer;	SPECTROPHOTOMETER DIGITAL, LMSP-V320	LABM AN	1	Each	
121	Spirit lamp large 250 cc glass 125 ml	SPIRIT LAMP, 'S.G.', 125ml, Round Shape	ADARS H	1	Each	
122	Spraye	PCN 24 SPRAYER (Glass) With Bellow	ADARS H	1	Each	
123	Stands; 8"x5" Heavy with 24" rod card box pack	IRON STAND, CAST IRON (Heavy Base without Clamp & Bosshead), Base 8"x5", Rod 24"x1/2"	ADARS H	1	Each	
124	Test tube holder Iron with wooden handle	TEST TUBE HOLDER (Wooden Handle), Iron Chrome Plated, Superior Quality	ADARS H	1	Each	



**CHAS COLLEGE,  
CHAS, BOKARO, JHARKHAND  
(A Constituent Unit of B.B.M. KOYLANCHAL  
University, DHANBAD)**

125	Test tube brushes	TEST TUBE BRUSH (Nylon) Superior Quality	ADARS H	1	Each	
126	Test tube holders; Iron c.p.	TEST TUBE HOLDER (Wooden Handle), Iron Chrome Plated, Superior Quality	ADARS H	1	Each	
127	Test Tube stand steel for 12 tubes S.S.	TEST TUBE STAND, Stainless Steel, 15mm, 12 Hole	ADARS H	1	Each	
128	Test tube stands; plastic	TEST TUBE STAND 6 Hole	POLYL AB	1	Each	
129	Test Tubes 16x 150mm	9800U05 Tubes, Test, With Rim, 15 x 150mm	BOROS IL	1	Each	
130	Test tubes; 15x125mm N/Glass	9800U04 Tubes, Test, With Rim, 15 x 125mm	BOROS IL	1	Each	
131	Thermometers ; (110)	THERMOMETER (30cm Length), -10 to 110C, Mercury	ADARS H	1	Each	
132	Thermometres; range 360 C	THERMOMETER (30cm Length), -10 to 360C, Mercury	ADARS H	1	Each	
133	Thistle Funnel N/Glass	THISTLE FUNNEL, Neutral Glass	ADARS H	1	Each	
134	Tongs Iron Nickelled 6"	CRUCIBLE TONG (Stainless Steel), 6"	ADARS H	1	Each	
135	Tripod stands iron 6"	TRIPOD STAND, Heavy Quality,6"	ADARS H	1	Each	
136	Tripod stands iron 8"	TRIPOD STAND, Heavy Quality, 8"	ADARS H	1	Each	
137	Vacuum pump;25 litre 1/4 H.P.	VACUUM PUMP (Oil Free), Portable diaphragm type., Motor Flow (Ltr./Min.) 25, Motor (H.P) 1/16, Max. Pressure(PSIG): 35	A.I	1	Each	
138	Valumetric flask ; Borosil Glass(100 ml)	5641016 Flasks, Volumetric, With Interchangeable Solid Glass Stopper, 100ml	BOROS IL	1	Each	
139	Valumetric flask ; Borosil Glass(500 ml)	5641024 Flasks, Volumetric, With Interchangeable Solid Glass Stopper, 500ml	BOROS IL	1	Each	





**CHAS COLLEGE,  
CHAS, BOKARO, JHARKHAND  
(A Constituent Unit of B.B.M. KOYLANCHAL  
University, DHANBAD)**

140	Viscometer Ostwald ; borosil glass	3500-Viscometer College Pattern, Oswal 80 -100 Seconds	BOROSIL	1	Each	
141	Washing bottles plastic 250cc Poly	WASH BOTTLES (New Type) 'POLYLAB', 250ml	POLYLAB	1	Each	
142	Washing bottles; 2"x1" N/Glass	1660021 Bottles, Wash, Complete with Interchangeable Stopper 250ml	BOROSIL	1	Each	
143	Watch Glasses 100 ml - pack of 10	9986 Watch glass S-line, 100ml (PACK OF 10)	BOROSIL	1	Each	
144	Water Bath (double walled fully automatic); 6 hole	WATER BATH (Thermostatic Double Walled) Inner S.S, outer M.S, 6 Hole of 75mm Dia	A.I	1	Each	
145	Water bath copper 6" dia	WATER BATH (Copper), Dia,6"	ADARSH	1	Each	
146	Water distiller; DISTILLATION Apparatus, Single complete with stand, 5 litre	DISTILLATION APPARATUS (ALL GLASS), Automatic Electrically Heated All Glass Distillation Unit, NPL Design, Heater Embedded In Spiral Glass Tube Complete With Heavy Base, Rod, Clamps, Boards Etc., Single Stage having flask of cap. 5 Litre, Automatic cut-off device for Single distillation	A.I	1	Each	
147	Whatman filter paper 12.5cm.	FILTER PAPER PKT., Dia 12.5cm, No.1	WHATMAN	1	Each	
148	Wire gauze with asbestos	WIRE GAUGE, With Frame & Asbestos Centre	ADARSH	1	Each	
149	Rubber Cork assorted size	RUBBER CORK ASSORTED (Dz.) Ordinary RED Colour	ADARSH	1	Each	
150	Woulf's bottle; 250 ml	WOULF BOTTLE, 'S.G.', 250ml	ADARSH	1	Each	





**CHAS COLLEGE,  
CHAS, BOKARO, JHARKHAND  
(A Constituent Unit of B.B.M. KOYLANCHAL  
University, DHANBAD)**

151	Incubator (low temp.) (18"x18"x18")	INCUBATOR BACTERIOLOGICAL, Double walled, Outer chamber made of M.S. Powder Coated. Temp. from Ambient upto 80deg C. Thermostatic controlled, Heating Element on three sides. Thermometer is provided on top. The scale is calibrated in 5 deg C, Inner Chamber Stainless Steel, Size 18"x18"x18", Capacity 95Ltr, Air Circulating Fan, Digital Temp. Indicator-Cum-Controller with Timer 0-24 hours	A.I	1	Each	
152	Vertical Autoclave (High Pressure) - Double Walled	AUTOCLAVE (Vertical) Double Wall, 300 x 500mm, Inner Chamber 304 Grade S.S. & Outer S.S. lining Provided with Wing nut type locking Arrangement, Spring Loaded Safety Valve, Pressure Gauge, Pressure Release Valve, Water Level Indicator & drain Valve. Hydraulically Tested to withstand upto 40psi Pressure. Molded Jointless Silicon Rubber Gasket is Provided for leak Proofing., 40 Ltr, with Automatic Pressure Control Switch, Digital Temp. Indicator cum Controller	A.I	1	Each	
153	D.o. meter (Digital)	DIGITAL DISSOLVED OXYGEN METER, 3*1/2 DIGIT led DISPLAY WITH Gold/Silver D.O probe. (Table Model)	LABTR ONICS /EI	1	Each	



**CHAS COLLEGE,  
CHAS, BOKARO, JHARKHAND  
(A Constituent Unit of B.B.M. KOYLANCHAL  
University, DHANBAD)**

154	T.D.S. Meter (Digital)	DIGITAL TDS METER, 3*1/2 Digit LED display with facility for temperature compensation and digital cell constant adjustment with TDS cell & other accessories (Table model)	LABTR ONICS /EI	1	Each	
155	Red wood viscometer	REDWOOD VISCOMETER NO. 1	A.I	1	Each	
156	Digital Conductivity Meter	DIGITAL CONDUCTIVITY METER, 3*1/2 Digit LED display with facility for temperature compensation and constant adjustment along with conductivity cell & other accessories (Table Model)	LABTR ONICS /EI	1	Each	
157	Microprocessor conductivity meter- TDS, Temperature	MICROPROCESSOR CONDUCTIVITY / TDS / TEMP. METER /SALINITY GRAPHICAL DISPLAY, a research grade instrument with 128 x 64 large graphical LCD display having automatic calibration, automatic range selection, automatic temp. compensation, selectable reference temp. fluid resistant housing & rotational electrode stand along with accessories. Data storage facility up to 1000 samples, complete with cell, temperature probe, rotational electrode stand, dust cover & instruction manual, computer interface through USB (table model)	LABTR ONICS /EI	1	Each	



**CHAS COLLEGE,  
CHAS, BOKARO, JHARKHAND  
(A Constituent Unit of B.B.M. KOYLANCHAL  
University, DHANBAD)**

158	Digital spectrophotometer	SPECTROPHOTOMETER DIGITAL, Model-LMSP-V320	LABMAN	1	Each	
159	MICRO CONTROLLER BASED pH/TEMPERATURE/MV METER GRAPHICAL DISPLAY	MICRO CONTROLLER BASED pH/TEMPERATURE/MV METER GRAPHICAL DISPLAY, a research grade instrument with 128 x 64 large graphical LCD display having auto temperature compensation, auto buffer recognition, fluid resistant housing & rotational electrode stand along with accessories. Its features include 3 point calibration. Data storage facility up to 1000 sample, complete with ph electrode, temp. probe, rotational electrode stand, dust cover & instruction manual, computer interface through USB (table model)	LABTRONICS /EI	1	Each	
160	Digital Calorimeter - 2½ digit LED display and filter sample size 1 mm battery RI	DIGITAL PHOTO COLORIMETER 8 FILTERS, Main operated with optical sensity in 2*1/2 digit LED display, 1 ml solution measurement.	LABTRONICS /EI	1	Each	
161	Digital Calorimeter - 2½ digit with rechargeable battery	DELUXE PHOTO COLORIMETER 8 FILTERS, Main cum battery operated with inbuilt rechargeable battery. optical density in 2*1/2 digit LED display, 1 ml solution measurement.	LABTRONICS /EI	1	Each	



**CHAS COLLEGE,  
CHAS, BOKARO, JHARKHAND  
(A Constituent Unit of B.B.M. KOYLANCHAL  
University, DHANBAD)**

162	AUTO KARL FISHER TITRIMETER-WITH LED	AUTO KARL FISHER TITRIMETER-WITH LED, having array of LED 's provider with inbuilt stirrer, auto burette adjustable timer, dual platinum electrode & other accessories.	LABTRONICS /EI	1	Each	
163	Digital Electrophoresis power supply	BT 300 POWER SUPPLY for Electrophoresis (Digital), This Power Supply Is Used With Every Model Of Electrophoresis Apparatus 0-300V,100mA	A.I	1	Each	
164	Auto zero Colorimeter - 2½ digit display - RI	DIGITAL FULLY AUTOMATIC COLORIMETER 9 DIGITAL FILTERS, with facility for automatic zero setting with finger touch, digital wavelength selection, inbuilt 6 v NI-CD Re-chargeable battery, 1 ml solution measurement, range 400 to 700 nm, highly accurate & compact	LABTRONICS /EI	1	Each	
165	Digital potentiometer with 3½ digit LED display along with glass and reference electrodes	DIGITAL POTENTIOMETER for Redox Potential Measurement 3.5 digit LED Display, Range 0 to +-1999 mv. Resolution 1 mv. Accuracy +- 1%, Power Supply 230 v +/- 10% AC supplied with O.R.P E+B27 electrodes, Electrodes Stand & Dust Cover.	LABTRONICS /EI	1	Each	
166	Steel Almirah	Mild Steel Almirah of 18 SWG Size : 900 mm W X 450 mm D X 1800 mm H	ANY	1	Each	



**CHAS COLLEGE,  
CHAS, BOKARO, JHARKHAND  
(A Constituent Unit of B.B.M. KOYLANCHAL  
University, DHANBAD)**

167	Steel-Glass Four Doors Case	Mild Steel 4 Doors Case (Glass) of 18 SWG Size : 900 mm W X 300 mm D X 1750 mm H Glass Thickness : 4 mm Every Door with Different locking arrangement	ANY	1	Each	
<b>SUB TOTAL CHEMISTRY LAB EQUIPMENT</b>						

#### D. MISCELLANEOUS

No.	Item	Item Description	Make	Qty	Unit	Unit Rate (Inclusive of Taxes)
1	Steel Almirah	Mild Steel Almirah of 18 SWG Size : 900 mm W X 450 mm D X 1800 mm H	Any	1	Each	
2	Revolving Chair	High Back Revolving chair with high back, Hydraulic Push Back , Material : Leatherette	Any	1	Each	
3	Executive Revolving Chair	High Back Executive chair with revolving high back, Hydraulic Push Back , Classic Model with extra comfort Material : Leatherette	Any	1	Each	
4	Teacher's table with pedestal	Made of Pre laminated MDF Board. It is in addendum with pedestal (1 drawer & 2 shutter) Size: 1500 mm W X 600 mm D X 750 mm H	Any	1	Each	
5	Workstation with Seating Capacity for 2	Made of Pre laminated MDF Board. Table Size : 600 mm D x 750 mm H	Any	1	Each	
<b>SUB TOTAL MISCELLANEOUS</b>						