



ਜਨਰਲ ਸ਼ਿਵਦੇਵ ਸਿੰਘ ਦੀਵਾਨ ਗੁਰਬਚਨ ਸਿੰਘ
ਖ਼ਾਲਸਾ ਕਾਲਜ ਪਟਿਆਲਾ

(ਸ਼੍ਰੋਮਣੀ ਗੁਰਦੁਆਰਾ ਪ੍ਰਬੰਧਕ ਕਮੇਟੀ, ਸ੍ਰੀ ਅੰਮ੍ਰਿਤਸਰ ਸਾਹਿਬ ਦੇ ਪ੍ਰਬੰਧ ਅਧੀਨ ਅਤੇ ਪੰਜਾਬੀ ਯੂਨੀਵਰਸਿਟੀ ਪਟਿਆਲਾ ਤੋਂ ਮਾਨਤਾ ਪ੍ਰਾਪਤ)
ਨੈਕ ਵੱਲੋਂ 'ਏ' ਗ੍ਰੇਡ ਪ੍ਰਵਾਨਿਤ, ਯੂ.ਸੀ.ਸੀ. ਵੱਲੋਂ ਕਾਲਜ ਵਿੱਚ 'ਪ੍ਰੋਟੋਸਿਅਲ ਫ਼ਾਰ ਐਕਸੀਲੈਂਸ' ਸਟੇਟਸ ਅਤੇ ਸਟਾਰ ਕਾਲਜ - ਡੀ.ਬੀ.ਟੀ.

ਆਟੋਨੋਮਸ ਕਾਲਜ

EQUIPMENTS QUOTATIONS/E-TENDER NOTICE

Sealed Quotations are invited till 25th January, 2021 from reputed Agencies/Vendors for purchase of Scientific/I.T. equipments under the grant of DBT Star College Scheme given by Biotechnology Department, Government of India. Detailed terms, conditions and specifications of equipments are given our website www.khalsacollegepatiala.org.

Principal

Specification of Equipment's for E-Tender

Sr. No.	Name of Equipment	Quantity of Equipment
1.	(Dell i5 Desktop, 1TB Hard Disk 4GB RAM, Mouse+ Keyboard operating system)+ (Office Std 2016 SNGLOP NL)+ (Pro Win 10 SNGL Upgrade OLP NL)	10
2.	Printer HP 1005	2
3.	LED Projector portable with battery backup and USB Direct Play	2
4.	Magnetic Board 3x4	1
5.	Overhead Projector (View Sonic PA500S-3600 Lumens DLP)	2



(Handwritten signatures)
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Bichu
Ah
Jyot

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De ionizing Water Assembly

Table Top Automatic/Wall Mount

Capacity: 10 L /Hour

Type: Ion Exchange/ RO

Product Water Conductivity at 25°C: 0.056 μ S/cm

Product Water DNase: < 5 pg/mL (with Biopak® Polisher)

Product Water Microorganisms: < 0.01 CFU/mL (with Millipak® or Biopak® point-of-use filters)

Product Water Pyrogens: < 0.001 EU/mL (with Biopak® Polisher)

Product Water RNase: < 1 pg/mL (with Biopak® Polisher)

Ultrasonic Probe Sonicator

Power: 750 watts (average) - Variable from 60 - 100%

Frequency: 20+/-3 KHz.

Timer: Digital - (microprocessor based) 0 to 30 mins

Meters: Digital Voltmeter.

Processing Capacity: up to 750 ml

Power supply: 230 VAC

Housing: MS Powder coated housing for Generator and Aluminium Housing for Transducer assembly.

Accessories:

1. Titanium Horn – 20 mm -1 No.
2. Stand and Jack arrangement for keeping sample
3. Necessary tools – 1 set.

Optional features:

1. Titanium Horn – 6 mm or 10 mm or 12 mm.
2. Sound proof Wooden Housing.
3. 10 Programme memory with Sequential and continuous Timer operation.
4. Temp. Indicator Controller with Pt100 sensor

Rotational Viscometer

Display mode: Digital

Digital Rotors Speed (r/min): 0.3/0.6/1.5/3/6/12/30/60

Speed governing: Digital

Eight Level Rotor: 1,2,3,4

Measure Range (mPa. S): 10^{-2} to 10^6

Measuring Accuracy (Newtonian liquid) : $\pm 5\%$. Dimension (mm): 275 X 230 X 475 with Temperature Probe

Mini Volume 20 ml

Max Volume: 250 ml

Spindle: RV/HA/HB Set

Min: Three Required

Polarimeter

Imported Hlaf shade nicol polariser.

Analyser: 100 mm diameter circular

scale divided 0-360°x1° Sugar scale: -30° to + 130°x1°ISS

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Ruby Das
MS *ms.* *Katun*

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Magnetic stirrer with hot plate

Stirring Capacity : 5 litres
Heating capacity: 500 watts
External Dimensions: 200×225×185 mm
Stirring Bead/Paddle (PTFE Coated): Standard Size

Melting Point Apparatus

OPERATIONAL:-

Instrument Control
Micro Controller Based. (Advance version of Micro Processor)
Visual Image
10 X Magnified image displayed on the monitor via CCD camera.
Keyboard
Alphanumeric splash water proof polyester soft keys.
Display
20 X 2 line back lighted LCD display.
5" B/W Monitor to view magnified image of sample.
Report Format
GLP compliant - Selection of formats including Result,
Graphics Program Parameters and calibration report.
Graph - In AUTO detection mode, a hardcopy of melting range graph with the markings of start of Melting and end of Melting is available.

SAMPLING:-

Sample Size
5 mg [Approx.]
Sample Holder
Glass Slide $\leq 1 \text{ mm} \pm 0.02 \text{ mm}$ thick.
Sample Cover
Glass Cover slip $\pm 0.17 \text{ mm}$ thick.
Glass capillary tube with one end sealed (optional)

TECHNICAL:-

Melting Point
Determination
Complies with B.P. Method 6 Appendix 5. & USP Class 1A
Method
Modes of Detection
AUTO & MANUAL
Furnace Construction Round Block as per B.P. - Method 6 Appendix 5.
2 TEMPERATURE:-
Range Ambient + 5 °C to 350 °C
Readability 0.1 °C
Heating Rates
0.2°C/min, 0.5 °C/min, 1.0°C/min, 2.0°C/min, 3.0 °C/min, 6.0 °C/min, 12.0 °C/min
Accuracy
Ambient + 5 °C to 200 °C $\pm 0.5 \text{ °C}$ / 200 °C to 300 °C $\pm 0.8 \text{ °C}$ & 300°C to 350°C $\pm 1.4 \text{ °C}$
Max. Cooling Time from 300°C to ambient [25°C] 20 Minutes.

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Handwritten signature: Anju

Sensor

Pt 100 [2 wire RTD]

MEMORY:-

Data Storage

Non volatile memory.

Program Storage 20 programs with parameters.

OPERATING CONDITIONS:-

Operation

Indoor

Temperature

Ambient to 45 °C

Humidity

< 85% at 25 °C

Input supply

230 VAC, ± 10%, 150 W.

Soxhlet Extraction Apparatus

1. Soxhlet extraction apparatus consisting extractor + condenser flask Max (5000 mL) quantity:2
2. Soxhlet extraction apparatus
2. Clevenger apparatus for determination of volatile oil. Quantity: 2 [210/4]
3. Clevenger apparatus for heavier oil. [212]
4. Moisture determination apparatus. [215A/02].
5. Heating mantle for distillation assembly (1000mL) [968/05]
6. Heating mantle for Soxhlet. Quantity : 1 (5000 mL) [965/08]
7. Continuous Extraction assembly perfit (Splash Head, Jacked coil condenser 1000 mL flask)

Digital Weighing Balance

Capacity : 220 g Readability : 0.1 mg Pan Size : ø 90mm Repeatability : < + 0.1 mg Linearity : < + 0.2 mg
Optimized filter levels

Stereo Microscope

Type: Zoom Microscope

(Model: MSZ-Bi (halogen lamp) Stereo Zoom Microscope

Wide Field Microscope

Zoom : 2X / 4X

6V 10W lamp with adjustable brightness 5W fluorescent lamp

Eye Piece High Eye point Super Widefield eyepiece SWH 10X with Field Number 23

Digital Camera 2.0 MP/or above

Muffle furnace

Rectangular Muffle Furnace (Laboratory Model) The casing made of thick Stainless Steel reinforced with iron angles riveting screw joints and welding wherever necessary. Heating chamber consisting of rectangular horizontal shape totally enclosed muffle baked at 1500°C.

Cont. page. 5

Ruby Dhar
Anu
Monika

Heating elements made of high temperature kanthal wire surrounded into the heating chamber, assuring the most uniform distribution of heat and protects heating elements against damage and chemical deterioration. Highly efficient, light weight, insulation is cast permanently into the furnace body. Furnace is equipped with a Digital temperature indicator cum controller to be operated continuously up to 900°C, and with a maximum of 1000°C fitted in front of the furnace with two indicating lights which glow while the furnace is 'ON'. The furnace is complete with one thermal fuse, 2 meter main lead with lead power plug to work on 220/230 Volts A.C.

Size- 150x150x300

OIL BATH ,

Temperature ranges from 50°C to 250°C fitted with electronic digital temperature controller cum indicator with an accuracy of $\pm 2^\circ\text{C}$. Suitable for a wide range of applications such as oxidation, stability test on oils, greases etc. or any other test requiring high temperature. It is double walled with inside stainless steel and outside mild steel sheet. Complete with stirrer, diffuser shelves and aluminium cover. To work on 220/230 volts AC.



Rupy Dhan
Munir
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