

Quotation Notice No. IRTC/P/ 13 /2025 – 26 Dated 05 – 02– 2026

Quotations are invited from the manufactures/authorised distributors for the supply of the following items for the implementing the project under **PLAN GRANT 2025 – 26**.

Quotation should be sent to the following address :

Registrar, IRTC, Mundur, Palakkad, Kerala – 678592,

Phone 2832663, 2832324, 9188183296.

Last Date of Receipt : 13 - 02 - 2026. 5 pm

Sl. No	Item with Specification	Quantity
1	<p><u>FULLY AUTOMATED KJELDAHL SYSTEM FOR NITROGEN ESTIMATION</u></p> <p>A. Distillation unit:</p> <ul style="list-style-type: none"> • A high- performance steel steam generator, outer regulation of steam amount (25-100%) • Automatic distilled water, steam addition, KmNo4, alkali addition & boric acid addition. 50 pre-defined editable user storage program is essential. • Auto tube inserts error indication. • Continuous monitoring of steam temperature and display at the time of water filling. Validated for (AOAC, EPA, DIN, ISO) • Sturdy outer body with min 1.5mm gauge acid resistant powder coated body. • The Borosilicate made of the entire glass assembly should have chemical resistance. • Reagent dosing head in borosilicate glass with Kjeldahl trap gas expander and coil condenser to prevent reflux for high efficiency condensation. • Dosage using peristaltic pumps with header capacity of 1 meter. • Single push button selector with 20x4 LCD Display. • Condenser water circulation sensor that indicates improper water flow rate during and before the process. • Reagent level sensor that indicates refilling for low levels of KmNo4r, alkali and boric acid. Extra protection against acidic attack during sample loading and unloading enhances durability and promotes ease of cleaning by stainless steel surface and a removable bottom tray. 	1

- Threaded tube connectors for quick removal of glass components for maintenance Auto process stop incase of accidental access door opening wherein process resumes from where it stopped post door closing
- Easy water and steam drainage from the boiler for effective steam generation.

B. Digestion system for protein estimation

- 250ml 6 position capacity block digestion-controlled system of 220/230 V maximum temperature 470 °C. Graphical real time representation with LED display.
- Integrated control panel and heater block for less bench space
- Single point and two-point calibration of temperature; Ramping of at least 4 ramps per program
- High reliability solid state relay for noise free heater operation.
- Acoustic and Visual Error Indication, Damaged probe detection, Run completed alert, Auto scrubber on/ off with delayed off timer.

C. Fume extraction system for protein estimation

- Fume scrubber with 28 LPM capacity for complete evacuation of acid fumes.
- 2 litre condensation and neutralization jars for larger fume volumes.
- MOC for bottles 3.3. expansion borosilicate bottles & body epoxy painted
- 29/32 ground glass with liners for quick removal and assembly of condenser and fume trap
- Threaded tube connectors for quick removal of glass components for maintenance
- Transparent PC Protective front shield and easy removable bottle tray.
- Carbon adsorption bottle removal any trace acid from exhaust air
- Four way acid neutralization through Condenser, trapping in distilled water, trapping in Alkali trapping & Carbon filter Vacuum technology for long life of the pump
- Automatic cooling water cut off post process completion for water saving
- Minimum MII content of 75%
- Physical 2- days' demonstration of all the three after successful installation at our location.



[Signature]
REGISTRAR

Registrar
Integrated Rural Technology Centre
Mundur, Palakkad - 678 592
Kerala