## Subject : <u>Notice Inviting Quotation for Purchase of equipment required for</u> <u>Chem. Tech. Deptt. CAT - A.</u>

This institute intends to purchase of equipment as per **Annexure - A**. Interested firm/party are requested to send the quotation to the office of undersigned in a sealed cover superscribed "**Quotation for Equipment for Chem. Tech. Deptt.**" on or before 12.03.2014.

Note : It may be noted that quotation received only through registered/speed post shall be considered only. The institute is located in remote area and it take 5 to 7 days to reach the mail, therefore, quotation be dispatched well in time considering this factor.

## N.B. :

- 1. Rate of ST/VAT if extra must be mentioned clearly.
- 2. Price quoted must be FOR SLIET.
- 3. Quotation received later than due date are liable to be ignored/rejected.
- 4. Other terms and condition for submitting the quotation are given overleaf which must be read carefully before submitting the quotation.
- 5. We are not responsible for accidental opening of the cover if it is not properly subscribed and sealed.
- 6. Quotation must be submitted on letter head of the firm with all particular, any other format will not be acceptable.

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## TERMS & CONDITIONS FOR QUOTATION

DELIVERY	The rate quoted must preferably be free delivery/F.O.R. Longowal after allowing the discount, if any. Where quoted extra advalorem rate payable should clearly be indicated. Supply should be made within the specified delivery period.
TERMS OF PAYMENT	Our normal terms of payment is within 30 days after receipt of stores in good condition by means of cheque/draft
TAXES	No sales tax concession against Form C and 'D' is admissible to this Institute. However, <b>form of certificate</b> being an educational institute can be issued if sales tax concession is admissible.
EXEMPTIONS	Excise and customs duties are exempted to the institute. The relevant exemption certificate will be issued to the successful bidder only if the excise duty/custom duty is exclusively mentioned in the Quotation.
DIRECTOR'S RIGHTS	Director, SLIET, reserves the rights of acceptance or rejection of any or all quotations. The discretion for increasing or decreasing of the quantities also rests with him. SLIET also not bind itself to accept does the lowest price. In case of any dispute, the decision of Director SLIET will be final & binding.
VALIDITY OF QUOTATIONS	Quotations will be considered valid for 3 months from the date of receipt.
CORRESPONDENCE	No correspondence regarding acceptance/rejection of a quotation will be entertained.
SAMPLE/BRAND/MAKE/WEIGHT	Sample where asked for, will invariably be made available and sent along with the quotations. However, Brand/Make/Weight etc. must be mentioned clearly in the quotations. Technical literature/pamphlet should also be enclosed.
REJECTION	Quotation not confirming to the set procedure as above will be rejected.
DISCOUNT/REBATES	A special discount/rebate wherever admissible keeping in view that the supplies are being made for education purpose in respect of Public Institution of national importance may please be indicated. Conditional, telegraphic quotation shall be rejected out rightly. SLIET shall not be held responsible for any postal delay in sending or late receipt of quotation. Quotation should be free from corrections & erasures.

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ANNEXURE - 'A'

S.No.	Name of	Specifications	Qty
0.110.	Equipments		α.,
1.	Separating and throttling Calorimeter	<ul> <li>Description of items:         <ul> <li>a)Separating Calorimeter: It should consists of two concentric chambers, the inner chamber, and the outer chamber, which communicates with each other through an opening at the top. As the steam discharge s through the metal basket, which has a large number of holes, the water particles due to their heavier momentum get separated from the steam and collect in the chamber. The comparatively dry steam in the inner chamber moves up and then down aging through the annular space between two chambers and enter the throttling calorimeter.</li> <li>b)Throttling Calorimeter: It should be a narrow throat (orifice). Manometer and thermometer should be used for measuring pressure and temperature. The steam after throttling process passes through the condenser and condensate is collected.</li> </ul> </li> </ul>	
		<ul> <li>Technicals Details:</li> <li>a)Separating calorimeter: Material Stainless steel, Dia 50mm, Length 200mm (apporx)</li> <li>b)Throttling Calorimeter: Material Stainless steel, Dia 50mm, Length 200mm (apporx).</li> <li>Having Converging and Diverging section.</li> <li>c)Pressure drop measurement: U-tube manometer (of appropriate range)</li> <li>d)Condensers: (Vertical) Insulated by ceramic wool and cladding by aluminum foli.</li> <li>e)Condensate measurement: Measuring cylinder and stop watch.</li> <li>f)Cold water circulation: Using tap water from lab.</li> <li>g)Hot fluid generation: Steam generator (made up of stainless steel fitted with level gauge, pressure gauge, safety valve, drain and insulated with ceramic wool and cladding with</li> </ul>	
		<ul> <li>aluminum foil)</li> <li>h)Heaters: 2 KW Nichrome wire heater.</li> <li>i)Control panal: i)Digital Temperature Controller: 0-199.9<sup>o</sup>C (For steam generator/hot water bath)</li> <li>ii)Digital Temperature Indicator: 0-199.9<sup>o</sup>C, with multi-channel switch, On/Off switch, Main Indicator etc. Temperature sensor RTD, PT-100 Type</li> </ul>	
2.	pH meter (Benchtop pH 700)	Description of item: Benchtop pH 700: Benchtop pH 700 should consists of Meter with double-junction pH electrode, ATC probe, and removable electrode holder. pH 700 meter also should measures	01

pH, mV, relative mV, and temperature.
Technical Details:
a) pH range of pH 700:       -2.00 to 16.00         b) pH Resolution of pH 700:       0.01 pH         c) pH Accuracy of pH 700:       ± 0.01 pH
b) pH Resolution of pH 700: 0.01 pH
c) pH Accuracy of pH 700: $\pm 0.01$ pH
d) pH Calibration of pH 700: Up to 5 points with autobuffer recognition
e) mV/rel mV range of pH 700: $\pm 2000$
f) mV/rel mV Resolution of pH 700: 0.1 within ±199.9 mV, 1 beyond ±199.9 mV
g) mV/rel mV Accuracy of pH 700: ±0.2 within ±199.9 mV, ±2 beyond 199.9 mV
h) mV Calibration of pH 700: Up to ±150 mV offset adjustment
i) Temperature range of pH 700: 32 to 100°F (0.0 to 100.0°C)
j) Temperature Resolution of pH 700: 0.1°F or °C
k) Temperature Accuracy of pH 700: $\pm 0.9^{\circ}F (\pm 0.5^{\circ}C)$
I) Temperature compensation of pH 700: Automatic or manual from 32 to 100°F (0 to 100°C)
m) Buffer recognition of pH 700: USA or NIST buffer sets
n) Data logging of pH 700: 100 data sets
o) Display of pH 700: Custom 31/4" x 27/16" (8.3 x 6.2 cm) LCD
p) Power of pH 700: 100/240 VAC, 50/60 Hz
<b>g)</b> Dimensions (L × W × H) of pH 700: $61/8" \times 67/8" \times 23/4"$ (15.5 x 17.5 x 6.9 cm)

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