

With reference to the tender notification for “**BET Surface Area Analyzer**” **Tender Notification No: NITK/CH/DST-FIST-BET/2019-20/1634** **Date: 27/02/2020.**, please note the following changes:

There is some changes in the specifications. So here we are attached the revised specifications of the instrument.

**Multipoint BET Surface Area, Pore Size Analyzer**

Require automated Instrument for BET Surface Area, Pore Size, Pore volume with the following specifications:

- i. **Measurement:** Surface area and pore size, B.E.T., STSA, adsorption isotherm, desorption isotherm
  - ii. Performs fully automated multi-point B.E.T. analysis.
  - iii. **Sample Analysis stations:** Two at a time (more than 2 is also preferred and priority will be given)
  - iv. Analyze up to 2000 data points (1000 adsorption points and 1000 desorption points). (Higher side is also preferred and priority will be given)
  - v. Prepare two samples by vacuum or flow methods simultaneously with sample analysis for maximum throughput. (other methods are also preferred but priority will be given based on versatility of the method)
  - vi. **Surface area range:** lower limit  $\leq 0.01$  m<sup>2</sup>/g, upper limit – no limit
  - vii. **Pore size range:** 0.35 to 500 nm (3.5 to 5000 Å)
  - viii. **Minimum pore volume** (liquid):  $2.2 \times 10^{-6}$  ml / g
  - ix. **Degassing:** Should have at least 2 degassing port built into the system
  - x. **Dewar life capacity:** Dewar should run more than 40+ in one refill for better flexibility
  - xi. **Temperature range:** Ambient to 350°C or better, 1°C intervals with programmable heating protocols Multi-step ramp rates / hold times. (other methods are also preferred but priority will be given based on versatility of the method)
  - xii. **Adsorbates:** Nitrogen
  - xiii. Should have Automatic coolant level control mechanism for precise void volume control and minimize the cold zone volume to yield high accuracy data (other methods are also preferred but priority will be given based on versatility of the method)
- Support:** Branded Computer with latest specification

Sd/-

**Dr.P.EJagadeeshBabu**  
**Faculty incharge/Buyer**  
**Dept of Chemical Engineeringg**

Sd/-

**Dr.Prasanna B.D**  
**Head of the Department**  
**Dept of Chemical Engineeringg**