## SPECIFICATIONS OF PRECISION SPIROMETER (PORTABLE)

- Instrument should measure
- Spirometry & Flow Volume Parameters,
- Maximum Ventilation Volume,
- Lung Volumes & Sub-divisions,
- Pre & Post Bronchodilator comparison,
- Real Time Flow Volume and Volume Traces on Computer Screen.

## **Required Features:**

- 1) Incorporates Precision Pneumotachograph:
- 2) Should meet Criteria of ATS Standards:
  - (i) Minimum Flow Range: + 0-14 L/Sec (Linear)
  - (ii) Resistance: 0.5 cm H<sub>2</sub>O/L/Sec.
  - (iii) Accuracy = Error less than 3%
- 3) Parameters should be measured with highest accuracy & reproducibility and accuracy not effected with Humidity, Moisture & Water droplets.
- 4) Should incorporate Electronic Barometer & Temperature Sensors, for Automatic BTPS Correction.
- 5) Overlaying of previous test curves for comparison.
- 6) Capability to select and modify predicted equations.
- 7) Facility to interface for desktop/ Laptop computer.
- 8) System software should be based on the latest Micro Soft Windows Operating System and should be compatible to run on Windows 2008.
- 9) Laptop Computer (HP/Dell/ Compaq/ lenovo)- 2 GB RAM, at least 14" TFT Screen, USB Ports, DVD R/W, Hard Disc Drive (1x320 Gbyte).
- 10) HP/Canon/Epson Deskjet printer and good quality UPS.
- 11) Should be supplied with computer interfacing package, Cables, Software, 2/3 Litre Calibration Syringe as per requirement of the instrument, Standard accessories, Manual and a Strong Carrying Case.
- 12) Additional Accessories: Pneumotach Screens (05 Nos), Pulmonary Filters (50 Nos), Disposable Mouthpieces (250 Nos) and nose clip.
- 13) Battery backup of more than 2 hours.
- 14) Instrument should conform to and certified by ISO/CE/USFDA.
- 15) CAMC for 5 years after completion of 3 years guarantee period.
- 16) The assemblage (Spirometer and laptop) should be portable.

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