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Purchase of Fourier Transfer Infrared (FTIR) Spectrophotometer with Attenuated Total Reflectance (ATR) for Applied Chemistry Deptt.

Sr.No	Description of Item	Qty.	Unit
1	<p>FTIR Spectrophotometer:-Technical Specification for a FTIR instrument with ATR</p> <ol style="list-style-type: none"> 1. Scan range: minimum 7500-350 cm⁻¹ with KBr beam splitter. 2. Temperature-stabilized room temperature DTGS/DLATGS detector. 3. Long-life sealed and desiccated optical unit. 4. A real-time atmospheric vapour correction (AVC) or a comparable utility must be available. This should not require the collection of reference or calibration spectra. 5. The system should at least have a signal to noise ratio of 30000:1 peak-peak, 4 cm⁻¹ resolution, 1 minute accumulation or better not R.M.S. signal/noise. 6. Spectral resolution with minimum of 0.8 cm⁻¹ or better. 7. Wavelength accuracy at least 0.1 cm⁻¹ at 3000 cm⁻¹ is essential 8. Wavelength precision of at least 0.01 cm⁻¹ at 3000 cm⁻¹ 9. Standard KBr pellet holder. 10. The instrument must use USB, wireless and TCP/IP interface allows direct connection with LAN. <hr/> <ol style="list-style-type: none"> 11. The instrument should be offered with rechargeable battery pack for remote operation, chargeable from mains and with UPS (2KV) for 30 min back up for uninterrupted power supply. 12. Accessories are automatically detected as soon as they are locked into the sampling area. Instrument parameters optimized for the installed accessory. Accessories information stored with spectral data. 13. Along with the main instrument, following accessories are requested. <ol style="list-style-type: none"> i. Two air-tight demountable cells for measurement of liquid samples with adjustable pathlength ii. KBr rectangular Windows (Pack of 4) for item (i) iii. NaCl rectangular windows (Pack of 4) for item (i) iv. Assorted Rectangular Spacers (pack of 10) of varying thickness for item (i) v. ATR accessory with monolithic diamond crystal with top plate and pressure arm for solid, liquid Gel, powder, polymer, paste, Gel etc. vi. Agate mortar Pestle, Pellet holder, KBr die set, KBr Powder(anhydrous)-100g supply, Oil free Hydraulic Press and vacuum pump with 5 years replaceable warranty. vii. Branded computer with i5 or better processor, 4GB RAM & 1TB HDD, 22-23" full HD Monitor with licensed window 7 and higher version compatible with equipment software, MS Office standard version and antivirus for 3 year, with Laserjet Printer cum Scanner cum copier. <hr/> <p>14. Software:</p> <ol style="list-style-type: none"> i. Licensed single software with inbuilt validation program and with licensed spectral library of approximately 5000 compounds of chemistry and pharmaceuticals including 2000 compounds of pharmaceuticals category. ii. A suite of optional software packages to provide advanced capabilities or functions designed for specific application areas. The software should have feature to enable the user real time update of spectral information plus results to provide faster feedback of information data status. iii. Software should be compatible with window 7 and higher versions. iv. Software should allow overlay of multiple data sets. <ol style="list-style-type: none"> 15. Sealed and desiccated interferometer to protect from moisture 16. 5 years replaceable warranty on beam splitter, Laser and IR source 17. Three years compulsory warranty on complete machine should be quoted separately. 18. Additional three years of AMC after expiry of warranty period 19. Branded 1.5 ton Split AC 20. Temperature & RM indicator 21. On site IQ, OQ, PQ of instrument along with document. 22. Training satisfactory technical & application training to the personnel as and when required within warranty period. 	1	Pc.