



## ANNEX - 01

### Automated Microbiology Analyzer (Identification & Antibiotic sensitivity) Specifications

<b>Description:</b>	The system should be totally automated for sample loading, incubation, sample standardization & interpretation of results.
<b>Analytical Parameters:</b>	Identification up to species level. Direct growth based up to MIC level
<b>Panel capacity</b>	The system must have the capacity to accommodate a minimum of 15 panels (ID & AST) at any time. The system must have separate cards for Identification and Susceptibility testing.
<b>Bar Code</b>	The system must have a bar code scanning device for Test cards/Cartridges/Medium and or panel identification.
<b>Testing base</b>	Should be on disposable sealed bar coded, cards, panels, strips with prefilled reagents, without additional requirements for adding reagents manually after incubation. Automated addition of reagents within analyzer is acceptable.
<b>Sample dispensing</b>	Database of reference phenotypes will be an <b>added advantage</b> . The software must have the following capabilities: - <ul style="list-style-type: none"> <li>• Workflow management.</li> <li>• Data storage.</li> <li>• Test quality control management.</li> <li>• Real-time connectivity with LIS.</li> <li>• Quick and easy reviewing and reporting</li> <li>• Identify test results as per NCCLS guidelines.</li> </ul>
<b>Additional reagents</b>	If additional reagent costs are required, please supply details including cost and preparation time.
<b>Incubator</b>	On board incubation chamber
<b>Test Processing Time</b>	Within 5 to 18 hours.
<b>Type of Panels</b>	It shall have different panels (ID & AST) separately to give user more flexibility on selection and save on cost.
<b>Panels For</b>	ID & AST of Gram-negative cocci/bacilli, Gram Positive cocci/bacilli (Mandatory).  ID & AST of Yeast (Optional).
<b>Printer</b>	Inbuilt or External. If both options available both shall be provided.
<b>Standards and Electrical Requirements</b>	USFDA, CE and or ISO certifications or relevant standards certification.  Power requirement:250V, 50Hz.



	<p>Conformity to electrical standards: IEC 61010-1, IEC 61010-2-081, IEC 61010-2-101 or BIS equivalent</p> <p>Shall provide suitable capacity UPS along with machine.</p>
<b>Country of origin</b>	Open
<b>User Training</b>	<p><b>International Training:</b> A one-time user training for one laboratory technologist shall be provided at an International Research Institute or Hospital laboratory with a volume of minimum 10 test per day. The length of the training shall be 14 days not counting travel and holidays. All cost of training to be provided by supplier.</p>
<b>Warranty &amp; Service</b>	<p>The company should have service engineers who should be available 24/7 on phone &amp; at site within 48 hours of reporting an error.</p> <p>Operator's manual and Service manual should be provided.</p> <p>All access codes to service mode shall be provided.</p> <p>Manufacturer's standard warranty with documents should be available.</p> <p>Manufacturer website information to be provided if specifications needed to be verified.</p> <p>Manufacturer's standard warranty with documents should be available.</p> <p>The supplier shall provide annual comprehensive maintenance of the supplied equipment as per manufacturers recommendation. And shall provide a maintenance report every 6 months.</p>
<b>Distributorship</b>	<p>Suppliers shall have a valid authorized distributor license or reseller license for the country/region at the beginning of agreement or on signing of contract.</p> <p>A distributorship or licensor-ship certification is mandatory at the time of bid submission.</p>
<b>Demonstration</b>	<p>All prospective bidders shall demonstrate the unit online before technical evaluation. This should include detailed explanation about reagents and consumables, operation, other accessories utilizations. And also, a short video how the equipment works.</p>
<b>System Configuration Accessories</b>	<p>All consumables required for system installation &amp; configuration shall be provided free of cost.</p>
<b>Additional Remarks or Requirements</b>	<p>Complete product details to be enclosed with the original brochure or catalogue (Soft &amp; hard copy).</p>



	<p>Details of the standard accessories, additional accessories, optional items, consumables and minimum supplies to be stated clearly.</p> <p>Quotation with details of all equipment price should be given.</p>
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At minimum it should have facilities for identification & antimicrobial susceptibility of the following clinically significant microbes;

Microbe	Identification	Antimicrobial Susceptibility
Gram-negative bacteria	Yes	Yes
Gram positive bacteria	Yes	Yes
Yeast	Yes	Yes
Anaerobes	Yes	Optional
ESBL	Yes	Yes
MRSA	Yes	Yes
Neisseria & Haemophiles	Yes	Optional

**Tentative Annual Requirement:**

Serial No	Name of test	Estimated Annual Tests
1	No of identification Tests	6805
2	No of Antibiotic Sensitivity	4625

Please note this is an estimated number which can either increase or decrease based on availability of patients.



## Automated Blood Culture System Specifications

<p><b>Description:</b></p>	<p>System should be fully automated, upgradable, walk-away, continuous monitoring and random-access system, which does continuous agitation for optimized recovery of organisms.</p> <p>System detection should be based on advanced sensitive fluorescent technology.</p>
<p><b>Sample capacity:</b></p>	<p>Minimum 40 sample positions and can be upgraded on site up to 160 samples as and when required.</p>
<p><b>Technical Specification:</b></p>	<p>System must support lab quality control requirement for automated analytics of blood volumes monitoring</p> <p>System should have facility to generate automated reports ready to be analyzed and sent to be various departments</p> <p>System should have more than 16 algorithms to monitor growth patterns in case of Positive samples</p> <p>System process enhanced visual indicators both inside and outside the instrument in the form of different colored LEDS to indicate exact station status –available, ongoing, positive, and negative &amp; anonymous.</p> <p>System should support special resin-based media for Antibiotic Neutralization for optimized recovery from various patients those are under treatment. Antibiotic neutralization device must have a proven record of neutralization even for last resort antibiotics like carbapenems at Trough, Mid and Peak levels in the Blood specimen, proof source to be submitted</p> <p>Instrument is having the facility to enter patient details and can scan the sample accession number using bar code reader (Feature: Accession Barcoding)</p> <p>System allows the user to load bottles anywhere in the system, without any software intervention in order to get the bottles loaded in the instrument round the clock.</p> <p>System should support special media for processing Pediatric Samples and Low volume sterile body fluid samples.</p> <p>System should support special media for optimal recovery of yeast, fungi and mycobacterium from Blood samples.</p> <p>Instrument positive bottle supports with rapid and accurate gram stain results without any hindrance like charcoal stains in microscopic background</p> <p>Special supplement for enhanced recovery from low volume sterile body fluid and special bottle for low volume pediatric samples will be added advantage.</p>



	<p>Media bottles are fully compatible with vacutainer holders without the need for a special adapter to improve blood collection workflow and safety.</p> <p>System should be capable of bi-directional interfacing with LIS/HIS (Laboratory/Hospital Information System).</p> <p>System should automatically calculate and provide TTD (Time to time detection) and Time in protocol (Time in protocol).</p> <p>System should take reading at every 10 Minute intervals.</p>
<b>Standards and Electrical Requirements</b>	<p>USFDA, CE and or ISO certifications or relevant standards certification.</p> <p>Power requirement:250V, 50Hz.</p> <p>Conformity to electrical standards: IEC 61010-1, IEC 61010-2-081, IEC 61010-2-101 or BIS equivalent</p> <p>Shall provide suitable capacity UPS along with machine.</p>
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