

**REQUIRED TECHNICAL SPECIFICATION-**  
**UNIVERSAL COMPARISON MICROSCOPE**

1	2		3	4		5
	Purchaser's Requirements		Conformity			Bidder's Offer
			Priority	Yes	No	Remarks
	<b><u>Universal Comparison Microscope – 01 No.</u></b>					
1	General	<ul style="list-style-type: none"> <li>• Optical comparison system for side-by-side comparisons of spent cartridge cases, fired bullets (caliber .177 to .50) and tool marks.</li> <li>• System should be easy to operate.</li> <li>• The system should facilitate to observe, examine, analyze and compare images on computer screen.</li> <li>• System should provide with a digital camera with high resolution to capture images and quality photographs</li> <li>• The system should facilitate to maintain a database and image library</li> </ul>	<b>C</b>			
2	Binocular System	With additional pair of eye piece to facilitate two analysts to observe the same object at the same time. (necessary to confirm conclusions and also for teaching purposes)	<b>C</b>			
3	Pointer	Movable at the field of view	<b>C</b>			
4	Object Holders	<p>Fully motorized holders with the ability to tilt and twist</p> <p>Separate holder for bullets (caliber .22 to .50) rotatable 360<sup>0</sup></p> <p>Separate holder for cartridge cases (.22 to .50) and shotgun cartridge</p>	<b>C</b>			

		cases (.410 bore – 10 bore) rotatable, tilt and twist  Universal holders for  <ul style="list-style-type: none"> <li>• Air Gun Ammunition</li> <li>• Distorted pieces of Bullets/Jackets</li>   <li>• Wire ends</li> <li>• Tools</li> <li>• Casting of tool marks</li> </ul>				
5	Split line	Movable to any direction	<b>C</b>			
6	Optical Bridge	With motorized adjustment facility	<b>C</b>			
7	Field of view (object field)	Minimum 1mm to 150 mm or more	<b>C</b>			
8	Magnification Range	1.5-90X (without any supplementary lenses)	<b>C</b>			
9	Colour application	Yes	<b>C</b>			
10	Sources of Light	<ul style="list-style-type: none"> <li>• Two independent, High power, Low heat emitting, LED ring light system, spot light and fluorescent light</li> <li>• Additional Bulbs and other illumination accessories</li> </ul>	<b>C</b>			
11	Stage lens clearance	<ul style="list-style-type: none"> <li>• 175 mm(min) at lowest Magnification</li> <li>• 100 mm (Min) at Highest Magnification</li> </ul>	<b>C</b>			
12	Working Bench	Appropriate Bench With motorized adjustment facility with two compatible adjustable chairs	<b>C</b>			
13	Accompanying software	Should provide a licensed software  The system should provide image comparison software for specific live to captured and captured to captured comparison techniques	<b>C</b>			

		Easy evidence/reference image handling via an image manager				
		In addition to Normal Basic Functions, Basic measuring capabilities (length, areas, angles, squares, circles, radius etc) and annotations				
		Fade in/out of reference scales				
		Two axis (vertical and horizontal) mirror functions				
		Capability of superimposition				
		Alternating display of images being compared				
		Negative image display facility				
		Continuous rotation facility				
		Brightness and contrast adjustment				
		Background noise reduction facility				
		Two axis (vertical and horizontal) side by side comparison of live and or stored images with adjustable divider line				
		Integrated data base function to maintain data base of all scanned and acquired images.				
14	Computer hardware	Appropriate computer compatible with operational software, monitor with high quality image output and high-quality color printer	<b>C</b>			
		Internal storage capacity more than 1 TB	<b>C</b>			
		Should be provided including necessary cabling, sockets, outlets and fixtures				
		The system should be included an uninterruptible power supply (UPS) system that enables a controlled and secure system shutdown following a power failure (minimum 30 minutes)				

		Power supply and other electrical materials should be compatible to Sri Lanka.				
15	Camera system	With 5- 10 mega pixel resolution or more	<b>C</b>			
16	Training	In house/Foreign training by factory instructor	<b>C</b>			
17	Warranty	Three years comprehensive onsite warranty after delivery	<b>C</b>			
18	Delivery period	Within three months after the LC	<b>C</b>			
19	After sales service	Onsite service with a service agreement for 5 years (after warranty period)	<b>C</b>			