TECHNICAL SPECIFICATION OF MOBILE FORENSIC VAN

The specifications of Mobile Forensic Van are as under:
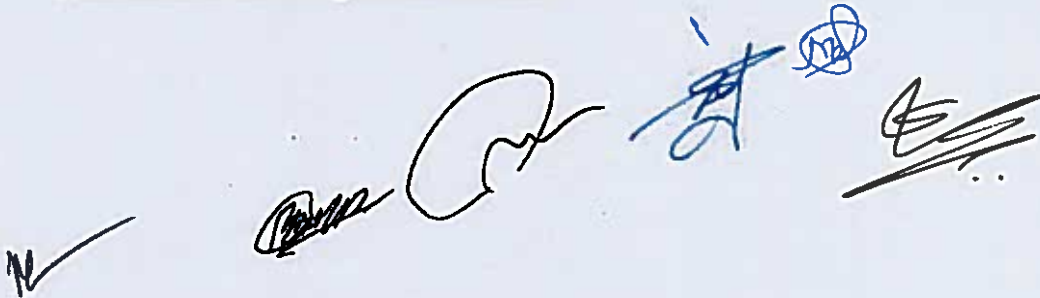
S.N.	Specifications	Specification of MFV with Customized Interior on make in India Vehicle
1.	Fuel	Diesel/Petrol/CNG
2.	Engine Capacity cc	2100 cc- 3000 cc
3.	Max Engine Power BHP	75 BHP to 135 BHP
4.	Max engine torque Nm	200 Nm-300 Nm
5.	Ground Clearance mm	180-220 mm
6.	Wheelbase mm	2600-3400 mm
7.	Type of Steering	Power Steering
8.	Fuel Tank Capacity ltr	60-90 Liters
9.	Length of body mm	4400-5500 mm
10.	Width of chassis mm	1700-2000 mm
11.	Height of chassis mm	1800-2200 mm
12.	Vehicle Mileage km/ltr	10 KM/litre or better
13.	Warranty period inclusive of warranty of battery (month)	3 Years or 1 Lakh KM, whichever is earlier
14.	Body Options (INTERNAL FABRICATION)	Technical Specification of Internal fabrication, with customised furniture /fixture in MFV are as under: • SeatingFacility :Comfortable seating arrangements for minimum 2 persons • Interior Noise Level: Vehicle/interior should be Specially designed such that there is low noise,shockproof, novibration, low harshness levelwith power steering facility • Internal Panelling: Complete interior panelling with appropriate, non-corrosive and acid/alkaliresistant material as per international standards. It should also be water-proof and specially fittedwithcustomized design toaccommodate speciallydesignedkits and accessories. • PreservationFacilities:Thereshouldbeappropriatepreservationfacilitiesforvariousperishable/destroyableevidences. • Platform: U shaped fixed working platform. It will also serve as storage cabinet.

Technical Specifications for Designing and Development of Mobile Forensic Van

List of Basic Kits that should be supplied with Mobile Forensic Van

1. Crime Scene Protection/Cordoning Kit
2. General Investigation Kit
3. Evidence Collection and Packing Kit
4. Complete Fingerprint Lifting Kit
5. Latent Fingerprint-Development Kit
6. Footprint and Tyre Print Casting Kit
7. High-Intensity Forensic Light Source
8. Blood and Semen Screening and Collection Kit
9. DNA and Sexual Assault Evidence Kit
10. Narcotics Screening and Collection Kit
11. Explosive Screening and Collection Kit
12. Arson Investigation Kit with Gas Detection
13. Gun Shot Residue Screening and Collection Kit
14. Bullet Hole Screening and Collection Kit

Details of Kits to be provided in Mobile Forensic Van

1. Crime Scene Protection / Cordoning Kit

Items	No of Units	Remarks
Crime Scene Protection Foldable Plastic Barrier With Metal Base Stands	4	Reusable
Crime Scene Barrier Tape-50 Mtr (Crime Scene Do Not Enter) With Rewinder	2	Reusable
Crime Scene Marking Flags (Pack of 12)	1	Reusable
Rechargeable LED And LASER Beam Flasher	4	Reusable
Crime Scene Marking Pyramids (A to Z And 0 To 9)	1	Reusable
Crime Scene Marking Cones (Evidence)	2	Reusable
Customized Carrying Case	1	Reusable

2. General Investigation Kit

Items	No of Units	Remarks
Spray Marking Paint, 350 gm	1	Consumable
Crime Scene Barrier Tape- 50 Mtrs (Crime Scene Do Not Enter) With Rewinder	1	Reusable
Laser Distance Measuring Device	1	Reusable
Laser Light Pen	1	Reusable
Direction Compass	1	Reusable
Elimination Kit (Pad & Slips)	1	Consumable
Folding Scale	1	Reusable
Rigid Photo Scales (Black & White) (Pack Of 12 Each)	1 (12 Piece)	Reusable
Self-Adhesive Mini Scale 20 Mm (150 Nos)-01 Roll	1	Consumable
White 12 LED Hi Power Torch (800 Lumens)	1	Reusable
Pocket Knife	1	Reusable
Swiss Knife 21 Functions	1	Reusable
Magnifier (4" Dia)	1	Reusable
Vernier Gauge (Digital)	1	Reusable
Scissors	1	Reusable
Metal Mirror	1	Reusable
Magnet (Pen Type)	1	Reusable
Set Of Forceps	1	Reusable
File	1	Reusable
Scalpel	1	Reusable
Rubber Gloves	1	Reusable
Disposal Gloves	1	Disposable
Pack Of Assorted Evidence Labels	1	Reusable
Molded Plastic Evidence Containers	1	Consumable
Set Of Evidence Bags	1 Pack	Consumable
Book Of Transfer Numbers	1	Consumable
Set Of Permanent Markers Pens	1	Consumable
Soap Towel	1	Reusable

Dust Mask, Shoe Cover & Head Covers	10 Each	Disposable/Cons umable
Steel Measuring Tape	1	Reusable
Glass Cutter	1	Reusable
Ratchet Screwdriver With Assorted Heads	1	Reusable
Electric Test Master Screwdriver	1	Reusable
Junior Hacksaw	1	Reusable
Pliers	1	Reusable
Wire Cutter	1	Reusable
Customized Carrying Case	1	Reusable

3. Evidence Packing And Collection Kit

Items	No of Units	Remarks
3 Mtr Tape Measure	01	Reusable
Rechargeable White Led Flashlight	1	Reusable
Roll Of Tamper Proof Evidence Sealing Tape	1	Consumable
Roll Of Evidence Sealing Tape	1	Consumable
Chain Of Possession Labels	20	Consumable
Set Of Pre Printed Write Block Zip-Top Evidence Bags 4"X 6", 6"X10" & 9"X12" (20 Each)	1	Consumable
Set Of Pre Printed Evidence Envelope 5"X 7", 6"X9" & 9"X12" (20 Each)	1	Consumable
Set Of Pre Printed Kraft Evidence Bags 5"X 3"X9", 7"X4"X13" & 8"X5"X18" (20 Each)	1	Consumable
Set Of Pre Printed Leak Proof Specimen Bags 4"X 6", 6"X10" & 9"X12" (20 Each)	1	Consumable
Set Of Bio Hazard Bags 8"X 12" (Pack Of 20)	1	Consumable
Bio Hazard Labels	10	Consumable
Set Of Fire Tin For Bullet Small & Big (10 Each)	1	Consumable
Collection Tubes With EDTA	6	Consumable
Disposable Syringes	6	Disposable/Cons umable
Amber & Transparent Plastic Jars With Caps	6	Consumable
Plastic Containers With Cap	6	Consumable
Set Of Thread, Needle, Sealing Wax & Cloth	1	Consumable
Set Of Candle, Match Box	1	Consumable
Set Of Crime Evidence Labels & Tags (24 Each)	1	Consumable
Ultraviolet Light With Batteries	1	Reusable
Big, Medium & Small - Evidence Collection Lifters	10	Consumable
Stainless Steel Scissors, Forceps & Spatula	2	Reusable
Carbide Tipped Scriber	1	Reusable
Multi Tool (21 Function)	1	Reusable
Pocket Knife	1	Reusable
Marker, Black, Blue, Green, Red & White	1	Consumable
Liquid Sampling Pipettes	04	Disposable/Cons

		umable
3" Dia Round Magnifying Glass	1	Reusable
Probe With Paint Chip Cutter	1	Reusable
Disposable Latex Glove Pairs, Face Mask, Shoe Cover & Head Cover	6	Disposable/Cons umable
Customized Carrying Case	1	Reusable

4. Complete Finger Print Taking Kit

Items	No of Units	Remarks
Finger Print Taking Slab (Black - Fiber Glass) 6" x 10"	1	Reusable
Finger Print Ink (Black; 120 gm tube)	1	Consumable
Finger Print Roller (Black Rubber 4" with stand)	1	Reusable
Finger Print Round Pad (2" Dia Inkless)	1	Consumable
Finger Print Rectangular Pad (3" X 5")	1	Consumable
Palm Print Rectangular Pad (6" X 8")	1	Consumable
Finger Print Card Holder (A4 Size; Plastic Moulded)	1	Consumable
Finger Print Search Slips (can be customized - pack of 100)	1	Consumable
Finger Print Record Slips (can be customized - pack of 100)	1	Consumable
Finger Print Cadaver Spoon (stainless steel)	1	Reusable
Finger Print Cadaver Straightener (steel - set of three)	1	Reusable
Finger Print Concave roller 2 inches for cadaver	1	Reusable
Finger Print Ridge Builder (100 ml - set of 2)	1	Consumable
Finger Print Ink Cleaning Towelettes (pack of 100)	1	Consumable
Portable folding working station / table	1	Reusable
All in co-polymer carrying cases	2	Reusable

5. Latent Fingerprint Development Kit

Items	No of Units	Remarks
Finger Print Regular Powder Black	50 gm	Consumable
Finger Print Regular Powder Grey	50 gm	Consumable
Finger Print Regular Powder White	50 gm	Consumable
Finger Print Regular Powder Dual Use	50 gm	Consumable
Finger Print Magnetic Powder Black	50 gm	Consumable
Finger Print Magnetic Powder Grey	50 gm	Consumable
Finger Print Magnetic Powder White	50 gm	Consumable
Finger Print Magnetic Powder Dual Use	50 gm	Consumable
Finger Print Florescent Powder Red	50 gm	Consumable
Finger Print Florescent Powder Yellow	50 gm	Consumable
Finger Print Florescent Powder Green	50 gm	Consumable
Finger Print Florescent Powder Orange	50 gm	Consumable
Finger Print Florescent Magnetic Powder Red	50 gm	Consumable
Finger Print Florescent Magnetic Powder Yellow	50 gm	Consumable
Finger Print Florescent Magnetic Powder Green	50 gm	Consumable
Finger Print Florescent Magnetic Powder Orange	50 gm	Consumable
Finger Print Feather Marabou Brush (Black And White)	1	Reusable

Finger Print Feather Ostrich Brush	1	Reusable
Finger Print Magnetic Powder Applicator	1	Reusable
Finger Print Soft Hair Brush	1	Reusable
Finger Print Lifting Tape 1"	1	Consumable
Finger Print Lifting Tape 2"	1	Consumable
Finger Print Lifting Tape 3"	1	Consumable
Finger Print Black Lifters (Pack Of 24)	1	Consumable
Finger Print White Lifters (Pack Of 24)	1	Consumable
Finger Print Transparent Lifters (Pack Of 24)	1	Consumable
Finger Print Black Backing Cards (Pack Of 24)	1	Consumable
Finger Print White Backing Cards (Pack Of 24)	1	Consumable
Latent Iodine Print Process With Fixative	1 set	Consumable
Magnifier White Light Illuminated 3 X 3" Dia	1	Reusable
Magnifier Light Illuminated Scaled Fixed Focus 8 X	1	Reusable
Magnifier / Linen Tester Folding Light Illuminated 5 X	1	Reusable
Portable Evidence Blue Led Lamp Battery Operated	1	Reusable
Scissors	1	Reusable
Scalpel	1	Reusable
Tweezers	1	Reusable
Evidence Marker Fine Tip Black, Blue, Red	1	Consumable
Small Particle Reagent Kit: Dark And Light With Spray-500 ml	– 3 bottles	Consumable
Customized Carrying Case	1	Reusable

6. Foot & Tyre Print Casting Kit

Items	No of Units	Remarks
Foot Print Frame Aluminium (14" X 8" X 2")	1	Reusable
Release Reagent / Hardener 200 Ml	2	Consumable
Mixing Bowl Small & Big	1 each	Reusable
Spatula Steel	1	Reusable
Mixing Spoon	1	Reusable
Measurement Tape	1	Reusable
Evidence Tag Pre Printed, 50 Nos	1 pkt	Consumable
Wire Gauge 4" X 10"	15 nos	Consumable
Plaster / Casting Material Top Grade, 750 Gm	15	Consumable
Spray Power Unit	2	Consumable
Water Container	1	Reusable
Disposable Pipettes	10	Disposable
Spray Paint To Mark Evidence Area	1	Consumable
Surface Brush Normal	1	Reusable
Rechargeable Torch Light	1	Reusable
Scissor	1	Reusable
Tweezers	1	Reusable
Liquid Soap	1	Consumable
Towel	1	Reusable
Consumables/Refill Items for Foot & Tire Print Casting Kit – casting material top-grade, 750 gm	1	Consumable
Customized Carrying Case	1	Reusable

7. **High-Intensity Forensic Light Source**

Items	No of Units	Remarks
Nine Separate Rechargeable Led (5 W) Light Source Units With Battery And Charger (Ac And Dc).	1	Reusable
Led Units With Following Wavelengths - UV, Violet, Blue, Green And White	2	Reusable
Light Diffuser	1	Reusable
Light support tripod	1	Reusable
Lithium Batteries	1 set each	Reusable
UV Protected Transparent Yellow, Red And Orange Goggles	1 each (03 Goggles)	Reusable
Batteries With Charger.	1	Reusable
Safety & Contrast Goggle (Yellow / Orange)	1	Reusable
Snap-On Contrast Filters (Yellow, Red, Orange)	1	Reusable
Customized Rugged Carrying Case	1	Reusable

8. **Blood & Semen Screening and Collection Kit**

Items	No of Units	Remarks
Bottle Of Distilled Water 125 Mlln Aerosol Sprayer	4	Consumable
Bottle Of Distilled Water 125 Ml	2	Consumable
Blood Stain Evidence Template (Pack Of 24)	1	Consumable
Blood Stain Detection Tablets (Normal)	16	Consumable
Blood Stain Detection Tablets (DNA Safe)	8	Consumable
Blood Stain Detection Reagent Set (Benzidine Process)	1 set	Consumable
Blood Origin Identification Strip (Hexagon Obti)	24	Consumable/ Disposable
Blood Collection EDTA Tubes	10	Consumable
Contact Filter Papers 1" X 2", 100 Nos	10 pkt	Consumable/ Disposable
Cotton Balls	2 pkt	Consumable/ Disposable
Cotton Gauze Small Roll	8 pkt	Consumable
Cotton Gloves	4 pairs	Disposable
Disposable Pipette With 3 Ml Bulb	24	Disposable
Evidence Identification Labels, "Crime Evidence"	100	Consumable
Forceps Stainless Steel, 6"	2	Reusable
Glass Vials	15	Consumable
Microscopic Plain Glass Slides	2 pkt	Consumable
Nitrile Gloves	10 pairs	Disposable
Pricking Needles, 100 Nos	2 pkt	Consumable/ Disposable
Rubber Hand Gloves	2 pairs	Reusable
Scissors Stainless Steel, 6"	2	Reusable

Body Fluid Detection Light Source (3 In 1- UV, Violet And Blue) With Amber Goggle	1	Reusable
Spatula Stainless Steel, 6"	2	Reusable
Spot Semen Test Of Ap	20	Disposable/ Consumable
Spot Semen Test OfPsa	24	Disposable/ Consumable
Spray Power Unit	4	Reusable
Vdrl Slide, 3 Cavity	20	Consumable/ Disposable
Watchglass, 3" Dia, 20 Nos	2	Consumable
Whatman Filter Paper	1 pkt	Consumable
Customized Carrying Case	1	Reusable

9. DNA Sample Collection & Sexual Assault Kit.

Items	No of Units	Remarks
Mini FTA Cards (2 Source)	25	Consumable/Disposable
Swabs With Protected Cover	10	Consumable/Disposable
Sterile Swabs	10	Consumable/Disposable
Swab Drying Rack	02	Reusable
Nitrile Gloves	05 pair	Disposable
Masks	05	Disposable
Edta Vials	05	Consumable/Disposable
Sterile Containers	04	Consumable
Paper Bags	05	Consumable
Small Paper Envelops	05	Consumable
Cotton Gauze	02	Consumable/Disposable
Cotton Balls	01 pack	Consumable/Disposable
Marker	02	Consumable
Wooden Nail Scrubber	10	Reusable
Scissor	02	Reusable
Plastic Tweezers	02	Reusable
Glass Slide With Protected Cover	05	Consumable
Distilled Water 10 ml	05	Consumable
Chain Of Custody Labels	20	Consumable
Syringe	02	Disposable
Pubic/ Hair Combs	01	Reusable
Anal Speculum (Steel)	01	Reusable
Vaginal Speculum	01	Reusable
Customized Carrying Case	01	Reusable

10. Narcotic Screening and Collection Kit.

Items	No of Units	Remarks
General Screening/Heroin	10 Test	Disposable
Marijuana/Hashish	10 Test	Disposable
Barbiturates	10 Test	Disposable
Methamphetamine / Amphetamine	10 Test	Disposable
Methamphetamine / Amphetamine Confirmation	10 Test	Disposable
Ecstasy (MDMA) / Bath Salt	10 Test	Disposable
MDMA Precursors	10 Test	Disposable
Cocaine / Crack	10 Test	Disposable
Cocaine / Crack Confirmation	10 Test	Disposable
LSD	10 Test	Disposable
Ketamine Solid	10 Test	Disposable
Ketamine Liquid	10 Test	Disposable
GHB	10 Test	Disposable
Mandelin Reagent	10 Test	Disposable
Fentanyl	10 Test	Disposable
Buphedrone	10 Test	Disposable
Buprenorphine (Subutex)	10 Test	Disposable
Methadone	10 Test	Disposable
Morphine	10 Test	Disposable
Flunitrazepam / Benzodiazepines	10 Test	Disposable
Mephedrone (4-Methyl-Meth-Cathinone)	10 Test	Disposable
Meck's Reagent	10 Test	Disposable
Synthetic Cannabinoids	10 Test	Disposable
Synthetic Cathinones	10 Test	Disposable
Khat	10 Test	Disposable
Cannabis Traces	10 Test	Disposable
Heroin	10 Test	Disposable
Heroin Black Tar	10 Test	Disposable
Heroin Mix	10 Test	Disposable
Customized Carrying Case	01	Reusable

Only those chemicals highlighted in Bold are given in basic model. However, other chemicals can be procured upon demand as per need.

11. Explosive Screening and Collection Kit.

Items	No of Units	Remarks
TNT / PETN / RDX / Nitrate	10 test	Disposable
TATP / HMTD	10 test	Disposable
Ammonium Nitrate	10 test	Disposable
Chlorate / Bromate	10 test	Disposable
Perchlorate	10 test	Disposable
Urea Nitrate	10 test	Disposable
Customized Carrying Case	01	Reusable

12. Arson Investigation Kit with Gas Detection

Items	No of Units	Remarks
Hydrocarbon detector	1	Reusable
Spray marking paint 350 g	1	Consumable
Digital distance measuring device	1	Reusable
Direction Compass	1	Reusable
Folding Scale 2 meter	1	Reusable
Set of rigid photo scale (Black, White and Grey)	1	Reusable
Multipurpose Knife 21 functions	1	Reusable
Magnifier	1	Reusable
Heavy Duty Scissors	1	Reusable
Flat File	1	Reusable
Set of permanent marker pens 5 color	1	Consumable
Glass cutter	1	Reusable
Ratchetscrew driver with assorted head	1	Reusable
Battery operated rechargeable drill machine	1	Reusable
Tool/Drill/bit set drill machine	1	Reusable
Electric test master screw driver	1	Reusable
Juinor Hacksaw	1	Reusable
Pliers	1	Reusable
Wire cutters	1	Reusable
Folding Steel Shovel	1	Reusable
Pair of safety goggles	1	Reusable
Scrapper 8"	1	Reusable
11", 7", Normal, and 8" screw drivers	1	Reusable
Claw hammer 10 inch	1	Reusable
Blade trowel 8"	1	Reusable
Customized Carrying Case	01	Reusable

13. Gunshot Residue Screening and Collection Kit.

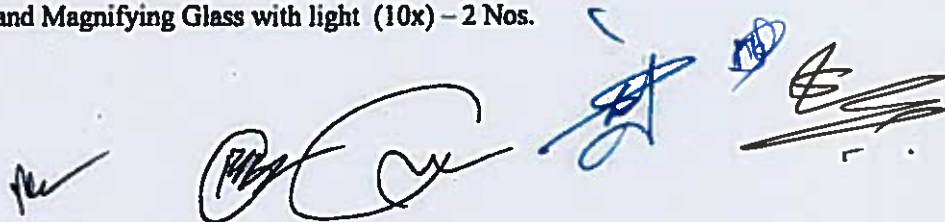| Items	No of Units	Remarks
Spot Test Card	20 Nos	Disposable
Gun Powder Particle Collection Lifter/ Sampler	20 Nos	Disposable
Straight Handle Small Magnifier	1	Reusable
Customized Carrying Case	01	Reusable

14. Bullet Hole Screening and Collection Kit.

Items	No of Units	Remarks
Crushable Ampoules - Lead Testing Reagent Lead Solvent Copper Testing Reagent Copper Solvent	10 each	Disposable
Test Papers	2 pkt	Consumable
Zipper Bags For Packing Positive Test Papers	50 Nos	Consumable
Ruler For Photography	01 No	Reusable
Permanent Marker Pen	01 No	Consumable
Customized Carrying Case	01	Reusable

Details of Equipment and Accessories to be provided with Mobile Forensic Van
Apart from all above Kits, below mentioned necessary equipment are suggested to be
supplied with Mobile Forensic Van and necessary space as per the requirement and
as per international quality need to be customized and installed in MFV

1. Research Stereo-microscope
2. Laptop with Printer
3. CCTV(Dash Board Camera); Front and Rear End of the Vehicle
4. Weighing Balance
5. DSLR
6. Mini-Refrigerator
7. LED Screen
8. Body Worn Camera with GPS
9. Public Announcement System
10. 1D and 2D/3D barcode Scanner and Thermal Printer
11. GENSET: Generator
12. <u>Digital Investigation Kit</u>
    - 12 A. Forensic imager
    - 12 B. Faraday bag
    - 12 C. Removable Media Device (Pen Drive)
    - 12 D. Removable Media Storage Device (Memory Card)
    - 12 E. External Data Storage Device (SSD)
    - 12 F. Acquisition, Imaging, and triage Tool
    - 12 G. Field Triage
13. Hand Magnifying Glass with light (10x) – 2 Nos.

Technical Specifications for Designing and Development of Mobile Forensic Van

1. Research Stereo microscope

Technical Specifications of Research Stereo Microscope	
Microscope Body:	Apochromatic Greenough System, Parfocal corrected optics. Photoport with 100% switch between right eyepath and camera, incl. interchangeable 60N c-mount camera adopter 0.5x Dual spot is height adjustable / Segment able LED ring illuminator
Illumination:	LED Double spot- Gooseneck arms-5600K / LED Lifetime typ. 50,000 Hrs-Illuminator housing with push button for operation modes and rotary button for continuous intensity adjustment. Option for system upgradable to Polarizer and Analyzer function.
Zoom:	Manually Operable Zoom 8-1 Switchable zoom click stops: 10 click stop positions- (End Stop 0.63x), 0.65x0.8+1x 125x1.6, 2x,2.5x, 3.2x,4x,5x Magnification Range without interchangeable optics: 6.3x-50x. Option for system to achieve Magnification Range with interchangeable optics: 2.0x up to 160x Maximumresolution 225 Lp/mm-2.2µm
Working Distance:	92 mm up to 280 mm (including interchangeable optics)
Eyepieces:	10x/ FOV 23 Viewing Angle: 35 deg. Interpupillary Adjustment: 55-75 mm
Stand:	Stand with a ESD Protection features: Antistatic surface, grounding socket RL Control-on/off/Dimming Integrated power socket for RL Stage: Black and white plate Column 250 mm with drive and handle, lifting range 145 mm Working surface of stand should be 255mm W x 215mm D. With Dust Cover.
Camera:	Colorcamera 8 Megapixels or better, pixel count 3840* 2160, exposure range of 0,06 ms to 1 s with a frame rate of 30 fps with a passive cooling system. And should have interfaces-HDMI, USB 3.0 Type C, Ethernet, Micro-D Full 4k Resolution in 30 fps On-screen display for standalone operation of camera
Software:	Software should be able to connect to camera in wireless mode.
Manufacturer:	Microscope and camera should be from same manufacturer.
Warranty -	03 year from the date of installation
Diagram	Schematic diagram of microscope has to be provided
Disclosure	It should be rugged, as it is for in field mobile van

2. Laptop with Printer

Specification	Details
Processor Generation	11th Gen.
Processor Make	Intel
Type of Drivers used to populate the Internal Bays	1 SSD
RAM Size (GB)	16 GB
Display Resolution (Pixels)	1920 X 1080
Total SSD Capacity (GB)	1024 GB
Processor Number	Intel Core i7 1165G7
Processor Description	Intel Core i7
On Site OEM Warranty (Year) OEM :: Authorised channel partner shall note that W :: G to be fulfilled by OEM at site)	
Operating System (Factory Pre-Loaded)	Windows 11 Professional
Recovery Image Media	CD from OEM / Stored in Partition of the Hard Disk / USB DriveFrom the OEM / On Line / Cloud
OS Certification	Windows
Number of USB version 3.0/3.1, Gen 1 Ports	3
Number of USB Type C Version 3.2 Ports	1
Number of VGA Ports	1
Number of HDMI ports (Version 2.0)	1
Number of Lan Ports	1
On Site OEM Warranty (Years)	3 years
Security- The quoted model should have Hardware TPM version 2.0 or better	
Certification: the quoted Laptop Model should have Microsoft Windows 11 Professional certification and EPEAT Gold certification (India)	
Pre-Loaded operation systems Windows 11 Professional, factory preloaded MS office Home & Business, Need confirmation from OEM on letterhead.	
Additional Specification	
OEM Authorization Service Centre	Must be at place/State where it is to be installed
Presence of OEM in manufacturing	Minimum 20 Years
Antivirus	Complete Protection from spyware/malware 24/7 Service Support.

3. CCTV (Dash Board Camera). Front and Rear end of the Vehicle

Parameters	Details
Video Quality	1080p or better
GPS Logging	-
Wide Angle View	Yes
Time lapse	-
Dimensions	154.3 mm X 69.8 mm X 69.8 mm
Accessories	Pole Mount
Operating temperature	- 40 'C to +60 'C

4. Weighing Balance

Parameters	Details
Type of Electronic Weighing Machine	Electronic Weighing Scale
Rated Load/Capacity (kg)	3200 g
Resolution (Gms)	10 mg
Class type	Class – II
Display Type	LCD
Speed of Measurement	4 second
Tare Provision	Automatic
Connectivity to Computer	Yes
Number of USB Port	NA
Number of RS232 ports	1
Power Requirement	Main operated battery operated
Power Supply	Single Phase
DC Operating voltage in volts	6 volt
Warranty	1 year

5. DSLR Camera (18- 55 mm)

Specifications	Details
Classification Camera	Still
Type of camera	DSLR APS Format
Image Sensor	CMOS
Effective Pixels (Mega Pixels)	24
Iso (Sensitivity of the Image Sensor) Max	25600
Supported Picture or image format	JPEG
Lens mounting	Detachable
Type of lens	Prime Lens
Minimum Focal length	18
Maximum Focal length	55
Minimum Lend Aperture (f/number)	0.2
Maximum Lens Aperture (F/number)	20
Optical Zoom	3x to 5x
Digital Zoom(x)	4
Maximum Field Off View	90
Focus Mode	Auto, Manual
Video Recording	Yes
Maximum Recording Resolution (Pixels)	Full HD (1920 X 1080)
Frame Rate	24, 25, 30
Video Compression Format	H.264, MPEG4
Video Output Port	HDMI
Video file format	MOV
Audio Recording	Yes

Audio Recording Type	Built-in
Number of Audio Input Port	1
Type of Audio input Port	3.5 mm (Stereo mini jack)
Audio Output	Yes
Number of Audio Output Port	1
Type of Audio output Port	3.5 mm (Stereo mini jack)
Display	Yes
Display Type	LCD
Touch Screen	No
Display Size (inch)	2.6-3
View Finder	Yes
Flash	Built-in, External (Not inclusive in the scope of supply)
Voice Control	No
Connectivity Interface	Bluetooth, USB
Picture control system	Auto
Flash modes	Auto
Shutter type	Mechanical
Minimum Shutter Speed	30
Maximum Shutter Speed	0.5
Storage Type	SD
SD Card Memory inclusive in the scope of supply (GB)	16
Memory Card expandable up to (GB)	128
In-built Memory (GB)	0
Power Source	Rechargeable Battery
Battery Size, if Non-Rechargeable Battery	NA
Battery Chemistry, if Rechargeable Battery	Li-Ion
Number of Batteries required for operation	1
Number of Batteries supplied (Inclusive in the Scope of Supply)	1
BATTERY CAPACITY (mAh)	800
Battery Charger for Rechargeable Batteries	Yes
Minimum Operating Temperature (for land use)	-5
Maximum Operating Temperature (for land use)	60
Operating Humidity, Rh at 40 deg C	65
Housing construction	Polycarbonate
IP Protection	IP 21
Carry Case inclusive	Yes
Weight	0.427
Dimension (WxHxD) (mmxmmxmm)	129.0 x 101.3 x 77.6
Warranty	1 Year

6. Mini Refrigerator.

Parameter	Details
Conformity to Indian Standard	IS:1476 latest For Direct Cool
ISI Marked	Yes
CML No.	0
Storage Volume (NET CAPACITY) (Litters)	45 – 52 Lit
Type oof Door	Single
Insulation	Puff
Built in Voltage Stabilizer	Yes
Method of Defrosting	Direct (Cool)
Coil Material	Copper
Type of Finish	Metallic
Colour	White
BEE Star Rating as on date (Central Ministries/Departments while procuring shall ensure that the items carry 4 star or higher Star Rating of BEE)	2
Eco – Friendly refrigerant	Yes
Compressor	Power Saver Compressor

7. LED Screen.

Specifications	Details
Type of Display Technology	LED Backlit
Screen Size (Inches)	32 inches
Resolution (Pixels)	1920 X 1080
Category	Smart
Operating System in case of Smart TV	Android
Static contrast Ratio	Native Contrast Ratio Minimum (1100:1)
Typical Brightness	350
Screen Mirroring	Yes
Mount Type	Wall Mount
Inbuilt Speakers	Yes
If Yes, Wattage of Speakers	20 (With maximum 10% THD)
Ports & Connectivity	
Number of HDMI Ports	2
Number of USB Ports	1
Number of Ethernet Ports	Yes
Built-in Wi-fi	Yes
Accessories	
Details of accessories (included in the Scope of supply)	AC power cord, remote control, user manual, wall mount bracket, necessary cables and connectors
Certification	
BIS Registration as per CRS of Meity	Yes
Generic	
Maximum Operating Temperature	40
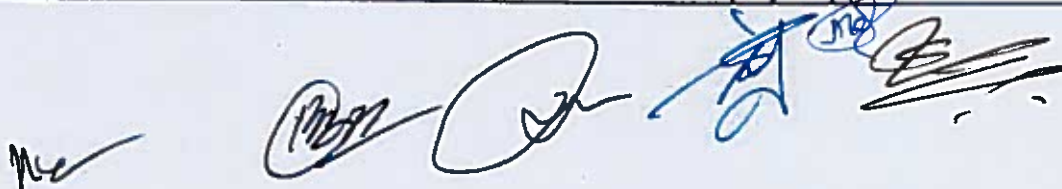
(Degree C)	
Minimum Operating Humidity (%RH)	10
Maximum Operating Humidity (%RH)	80
Warranty	
Warranty (Years)	5 (On site OEM warranty)

8. Body Worn Camera with GPS

Parameter	Details
Device type	Camera with Audio-Video recorder
Device dimensions (Maximum)	Height: up to 100mm Width: up to 70mm Depth: up to 30mm
Working Temperature	−4°F to 122 °F (−20°C to 50°C).
Storage Temperature	−4°F to 95 °F (−20°C to 35°C).
Device ID	Unique identification for each device
Ingress Protection Rating (Minimum)	IP67
USB Type Supported	USB Type 3.0
Body Mount	Multiple mounting options should be provided for using the device on various type of Uniforms (i.e. Magnetic Mount)
Sensor Type	CMOS
Resolution (minimum)	Option to change resolutions between 480p, 720p and 1080p
FOV (Minimum)	Diagonal: 145° or better Horizontal: 125° or better Vertical: 68° or better
Recording type	Single button operation to start/stop the recording
Audio/Microphone	3- in-built microphone to record stereo quality audio (2-channel audio)
Recording 'On' indicator	LED Indicator
Storage capacity (Minimum)	Minimum 64 GB solid-state non-removable eMMC. The storage should be encrypted.
Connectivity	Wi-Fi and Bluetooth
Interface Software/Platform	Complete Data and Video Management application on Windows PC/Cloud based Platform
Mobile Application	Compatibility with android/IOS based platform
Weight	200 grams Maximum
Battery Capacity/Life	Min 3400 mAh
Active Battery Back-up in Continuous Video Mode (Minimum)	10 hours
Audio Format	MP3
Standard Accessories	Docking Station, USB Charging cable, User Manual
Video Compression/Format	H.264 / MPEG4
Drop Resistance	6 Feet Minimum (1.8 Meter)

Camera Lens	Auto Focus
Recording Speed (Minimum)	30 frames per second
Stamping with the recorded videos	Date, Time, Model Number of Camera, Serial Number of the camera and GPS
Low-light video capturing	Body worn camera must have enhanced image quality and low-light capability of ≤ 0.1 lux
Salt fog (Mandatory)	MIL-STD-810G
Live Streaming	The embedded LTE radio should be used to enable live streaming facility. Live Streaming should be only seen on Digital Evidence Management System with location of camera on map.
Connectivity Interface for Live Streaming	4G/LTE or better
On-site Warranty	03 years
Certification (Mandatory)	CE, FCC, BIS
Pre-event Audio and Video Recording time	Minimum 30 seconds and up to 2 minutes. It should have features to disable and enable audio recording during pre-event buffer through DEMS software.
Physical buttons (Minimum)	Power On/Off, Audio/Video recording, Bookmark on recording, Volume level
Indicators/Notifications	While on Field: Battery level, recording status, other notifications on the LCD Screen on the upper side of the camera While on Docking Station: data transfer status, battery charging status, errors
Live view/Preview of Recorded Video on field	Over Bluetooth and Wi-Fi using Mobile application designed by OEM
Haptic Notification	Vibration feedback to accompany beep tones

9. **Public Announcement System**

Parameter	Details
Microphone Output	Nominal level 14 mV at 3.3 kΩ (MIC power supply voltage 2.5 V)
Line output	Nominal level 0 dB and 0.775 V
Control input	0 - 10 V, for controlling the volume remotely
Relay output	(switch-over contact) 30 V/1 A, 100000 switching cycles
Audio output	70 V/100 V
Ports	RJ45 Shielded Plug-in
Connection terminals	Pluggable screw-in terminals for connecting the power supply, output, microphone, inputs, line output, 70 V/100 V audio output, loudspeakers
Power Supply:	230V AC and external power supply, 20-26 VDC (max. 2.6 A at 4 Ω/50 W or max. 1.3 A at 8 Ω/25 W, 3 A at 70 V/100 V audio output) or PoE (IEEE 802.3af), power consumption of terminal device: Class 0 (0.44 W to 12.95 W), with attenuated output power (up to 12 dB attenuation corresponds to an output power of approx. 6 W)
Cabling	min. Cat. 5 Line length of up to 100 m in LAN
Operating range	0°C to +70°C; max. non-condensing relative ambient humidity 80%;
Microphone	Omnidirectional electret microphone; max. 7 m speaking distance
Loudspeaker	2x 8 Ω loudspeakers with a special membrane; 85 dB/W/m sound pressure
Amplifier	integrated Class D amplifier; 2.5 W
Max sound pressure	99 dB
Weight	Aprox. 1.5Kg

10. **1-D and 2-D/3-D barcode Scanner and Thermal Printer**

Parameter	Details
Item Weight	240 g
Product Dimensions	13 x 9 x 6 cm; 240 Grams
Connectivity Technology	USB Cable
Power Source	Corded Electric
Operating System	Linux, Windows
Capability	1-D, 2-D, QR Code Scan

11. GENSET: GENERATOR

Parameter	Details
Air Cleaner	Dual type
Bore X Stroke (mm)	68 x 54 or better
Compression ratio	8.5 : 1
Cooling System	Forced air
Displacement (cm3)	196
Engine Control Panel Display	i-Monitor Equipped
Engine Throttle	Electronic Governor (Load Sensitive)
Fuel Tank Capacity (L)	12.5
Fuel Type	Unleaded gasoline
Ignition System	Full transistor ignition
Model	GX 200 T
Noise Level	86 dB
Oil Capacity	0.55 L
Spark Plug	BPR6ES (NGK)
Starting System	Recoil or electric starter
Dry Weight(Kg)	62 kg
Continuous running hours (Hrs.)	6.9
Dimensions (L x W x H)	710 x 482 x 570 or appropriate as per vehicle requirement
Type	4-stroke, overhead valve, single cylinder, inclined by 25°
Lubrication	Forced spray system
Carburettor:	Float, Butterfly, Side Draft
Rated Output (VA)	2800
Maximum Output (VA)	3000

12. Digital Investigation Kit

12 (A) Technical Specifications of Forensic Imager		
Sr. No.	**Details**	**Remarks**
01	Capable to imaging/clone data from one to one, two to two or one to many destination media	Yes
02	Capable to imaging/clone data at the speeds of 50GB/min or higher. Clone PCIe to PCIe at speeds of over 100GB/min	Yes
03	Support multiple Imager Formats, copy, dd image,.dmg image, e01, ex01, supports MD5, SHA1, SHA256 and dual-hash (MD5+SHA-1) authentication	Yes
04	Can use up to 10 sources and 11 destinations for imaging (with verify), hashing, or wiping for ultra efficient operation	Yes

05	Multiple Imaging Ports:	Yes
06	write-protected source ports include:	Yes
07	1 SAS/SATA (SAS-3/12Gbps) that supports up to 4 drives with a single cable	Yes
08	2 USB 3.2 Gen 2 (can be converted to SATA using an optional USB to SATA adapter)	Yes
09	1 PCIe	Yes
10	2 I/O ports for use with optional I/O cards including Thunderbolt 3/USB-C	Yes
11	multiple destination ports include:	Yes
12	1 SAS/SATA (SAS-3/12Gbps) that supports up to 4 drives with a single cable	Yes
13	4 USB 3.2 Gen 2 (can be converted to SATA using an optional USB to SATA adapter)	Yes
14	1 PCIe	Yes
15	1 I/O ports for use with optional I/O cards including Thunderbolt 3/USB-C.	Yes
16	Should have Two 10GbE network ports for network connectivity. The unit should include a USB 3.2 Gen 2 device port for drive preview and two USB 2.0 host ports	Yes
17	Should allow imaging to an external storage device such as a NAS, using the 10GbE ports, USB 3.0 or via the SAS/SATA connection.	Yes
18	Should be able to Simultaneously perform multiple imaging tasks from the same source drive to multiple destinations using different imaging formats. Image simultaneously from multiple sources to multiple destinations including a network repository. Supports imaging to one location while simultaneously hashing and/or wiping a second drive. Perform up to 5 tasks concurrently. Little or no speed degradation when imaging from two sources to two destinations	Yes
19	Capable Web Browser/Remote Operation to allows to connect with device from a web browser	Yes
20	Capable to cross copy support for IDE, SATA, e SATA, microSATA, SAS, ZIF and USB interface and combine-SATA etc.	Yes
21	Should image CD/DVD/Blu-ray media by using a USB optical drive connected to the USB port on the device	Yes
22	Capable to Detect and capture Host Protected Areas (HPA) and Device Configuration Overlay (DCO) hidden areas on the source (suspect) drive	Yes
23	Should Capture network traffic, internet activity and VOIP.	Yes
24	Capable to Generate Audit Trail Reporting/Log Files in XML, HTML or PDF format	Yes
25	Should Secure sensitive evidence data with whole drive AES 256-bit encryption	Yes
26	Allow to manipulate the DCO and HPA area of the destination drive so that the destination drive's total native capacity matches the source drive	Yes

27	USB Host Ports and HDMI Port for connecting keyboard, Mouse and with Projector	Yes
28	Forensic, Filter-Based File Copy, users can filter and then image by the file extension (such as.PDF,.xls, JPEG, .mov etc.).	Yes
29	Capable to acquire data over a network	Yes
30	Capable to generate the log of the processes	Yes
31	Capable to boot/mount the suspect media virtually in a write protected environment for preview of live data.	Yes
32	USB Host Ports and HDMI Port for connecting keyboard, Mouse and with Projector	Yes
33	Product should carry 3 (Three) Years On-Site Warranty. Any Software/ Firmware updates to be provided during the Warranty Period.	Yes
34	Product should carry 3 (Three) Years On-Site Warranty. Any Software/ Firmware updates to be provided during the Warranty Period.	Yes

12 B. Faraday bag

Sr. No.	Technical Specifications
1.	Bag should be able to prevent any RF communications for Cell Phones/Laptop/Tablets

12 C. Removable Media Device (Pen Drive)

Sr. No.	Technical Specifications
A	Removable Media Device bundle having following specifications:
	Capacity: 128 GB
	Performance: Up to 150MB/s read speed
1.	Compatible With: Laptops	Desktops	Mobiles	Tablets
	Form Factor: Flash
	Interface: USB Type-C or USB Type A connectors USB 3.1 Gen 1 or better
	Warranty: 5 Years Warranty

12 D. Removable Media Storage Device (Memory Card)

Sr. No.	Technical Specifications	
	Parameters	Values
1	Capacity	256GB
2	Speed^2	USB 3.2 Gen 2

Sr. No.	Technical Specifications	
	Parameters	**Values**
		Up to 1,000MB/s read, 900MB/s write
3	Dimensions	82.17 mm x 22.00 mm x 9.02 mm
4	Weight	12g
5	Operating temperature	0°C~60°C
6	Storage temperature	-20°C~85°C
7	Warranty/support	5-year warranty with free technical support
8	Compatible with	Windows® 10, 8.1, Mac OS (v. 10.14.x +), Linux (v. 2.6.x +), Chrome OS™

12 E. External Data Storage Device (SSD)

Sr. No.	Technical Specifications	
	Parameters	**Values**
1	Capacity	1 TB
2	Speed	USB 3.2 Gen 2 Up to 1,000MB/s read, 900MB/s write
3	Dimensions	82.17 mm x 22.00 mm x 9.02 mm
4	Weight	12g
5	Operating temperature	0°C~60°C
6	Storage temperature	-20°C~85°C
7	Warranty/support	5-year warranty with free technical support
8	Compatible with	Windows® 10, 8.1, Mac OS (v. 10.14.x +), Linux (v. 2.6.x +), Chrome OS™

12 F. Acquisition, Imaging, and triage Tool

Sr.No.	Acquisition, Imaging, and triage Tool
1	It provides solution of 4-in-1 for live data acquisition, preview, targeted data collection, and forensic imaging of both Mac and Windows systems
2	This solution supports forensic analysis software on both Windows and Mac workstations
3	Product run on live Windows computers with 64-bit hardware running Windows 10, version 1909 and newer.
4	It can forensically boot Windows computers running Windows 10 and start some older Windows operating systems.
5	Product can conduct acquisition on large range of macOS devices which include latest and over 185 different laptops and desktop models with HFS+, APFS, Core Storage, File Vault, T2 and Fusion drives.
6	Product can boot the greatest variety of macOS computers for forensic imaging, including Apple's latest hardware and operating systems via the USB dongle.

7	It has ability to browse file system, review file content and collect data in both live mode and booted mode.
8	Product can be able to conduct on-scene triage, live data acquisition, targeted data collection and forensic imaging
9	Product has capability to acquire full disk forensics images or collect just specific user files.
10	Product can be able to capture important live data such as Internet, chat, and multimedia files in real time. It should have the capability to selectively acquire email, chat, address book, Calendar, and other data on a per-user, per-volume basis.
11	Product has the capability to conduct selectively acquire data on a per-user, per volume basis
12	Capable to soundly acquire and save volatile macOS Random Access Memory (RAM) contents to extract passwords and other live artifacts to a destination device.
13	Able to create physical decrypted images of Apple's T2 chip systems, including unallocated.
14	Able to create physical image of Mojave Fusion drives
15	Product can create images of selected files to a folder or a logical evidence format (L01)
16	It can authenticate collected data using all MD5, SHA-1 or SHA-256 hash functions.
17	It has the decryption method support for T2 password or recovery key.
18	Product has the decryption method support for file vault and core storage keychain, password, or recovery key.
19	Product can write to evidence storage on the following file system: HFS+, APFS, ExFat or NTFS
20	Product can be able to format evidence storage on site using built in tools.
21	Product has the capability to browser view to preview file content prior to acquisition.
22	Product can do a search view to locate using filters or keyword before acquisition and filter by metadata.
23	It is capable to add files and folder to data collection when data is being triaged via browser and search.
24	Product has 26 unique system data, collection options from Live RAM, including active system processes, current system state and print queue status
25	Product able to produce extensively log data acquisition information throughout the collection.

26	Product has a built-in tool to manage evidence storage and support storage on all major file systems.
27	Product has write-protect source devices while maintaining read-write access on destination devices.
28	Product has a capability to boot the Mac and Windows systems via a USB dongle.
29	Should have support for physical data acquisition from latest Chipset M1 based apples computers
30	Should have tender specific MAF

12 G. Field Triage

Sr. No.	Specifications
1	Should be able to achieve blisteringly-fast acquisition times using the subject machine to image itself out.
2	Should be able to split the imaging process to multiple collectors; utilising all available ports, either in a 'live' state or boot mode.
3	Should be able to work on Windows, Mac and Linux.
4	Should have an ability of forensically sound, with MD5, SHA1 & SHA256 validation.
5	Should be able to stop extractions before completion without the risk of losing any data acquired up to that point.
6	Should allow recovery of deleted data.
7	Should have function of no need to remove the hard drive.
8	should have Rapid automated triage solution.
9	Should provide alerts of suspicious items through a red, amber and green status.
10	Should have ability of Highly configurable search profiles.
11	Should be able to quickly acquire usernames and passwords.
12	Effortlessly customise it for use across a range of investigation types, including modern slavery, fraud, insider trading, harassment, Indecent Images Of Children (IIOC), Internet Crimes Against Children (ICAC), human trafficking and terrorism

Apart from above kits and Accessories, below mentioned kits should be made available as an additional / optional in Advanced Model of Mobile Forensic Van

1. **Consumable Kit for refiling (Optional)**

Items	No of Units
Consumables items Complete Finger Print Taking Kit –Finger print ink (Black;120 gm tube)	1
Consumables items Complete Finger Print Taking Kit – Finger Print Round Pad (2" Dia Inkless)	1
Consumables items Complete Finger Print Taking Kit – Finger Print Rectangular Pad (3" X 5")	1
Consumables items Complete Finger Print Taking Kit- Palm Print Rectangular Pad (6" X 8")	1
Consumables/Refill items for LATENT FINGER PRINT DEVELOPER KIT – Finger Print Powder Any color/Any type	50 gm
Consumables/Refill items for LATENT FINGER PRINT DEVELOPER KIT – Finger Print Lifting Tape 2"x 360	1
Consumables/Refill items for LATENT FINGER PRINT DEVELOPER KIT –Finger Print Lifters (Any type) scaled-2" x 4" (Pack of 24)	1
Consumables/Refill items for FOOT & TIRE PRINT CASTING KIT- Casting Material Top Grade, 750 Gm	1
Consumables/ Refill Items Blood Detection Kit And Semen Detection Kit – Blood Stain Detection Tablets (Normal)	8
Consumables/ Refill Items Blood Detection Kit And Semen Detection Kit – Blood Stain Detection Tablets (DNA Safe)	8
Consumables/ Refill Items Blood Detection Kit And Semen Detection Kit – Blood Origin Identification Strip (Hexagon OBTI)	8
Consumables/ Refill Items Blood Detection Kit And Semen Detection Kit – Spot Semen Test of AP	10
Consumables/ Refill Items Blood Detection Kit And Semen Detection Kit – Spot Semen Test of PSA	10

2. Cyanide Detection Kit and Heavy Metal Detection Kit (Optional)
3. Narcotic Drug and Psychotropic Substance Testing kit (Optional)
4. 360 Degree Camera (Optional &Available only in Advanced Model)
5. Ulltra High Power LEDLight Source Along with Stand and Carrying Case(Optional)

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