



	chassis member for the uniform distribution of load over the chassis.																
9.14	aluminium packing block and self locking unit.																
9.15	Balata packing of thickness 6 mm shall be provided in between the chassis frame and cross member.																
9.16	The structure/ frame work shall be welded constructions and made from 2 mm thick M.S pressed sections and square tubes. The angles and channels used shall be of minimum 3 mm thickness. The complete structure material shall be treated for anti corrosion by ZINC PLATING. The plating thickness shall not be less than 20 microns. Two coats of epoxy paint shall be applied to the completely welded structure. The complete rear of the vehicle should be closed type to prevent crowd from climbing on the vehicle. A door with internal locking system should be provided on the rear of the vehicle. The approach ladder and the NRV control should be housed inside the door.																
9.17	The structure shall be so designed so as to avoid any vibration/ rattling/ deformation in the intended usage of the vehicle.																
10	<p><b>ACCEPTANCE TEST</b></p> <p>The following test shall be carried out before accepting the vehicle. These shall be carried out at manufacturers works or at a place to be mutually agreed upon. All materials required for the test will be provided by the manufacturer till acceptance.</p> <p>a) <b>LOAD DISTRIBUTION</b> :- The front axle, rear axle and total weight of the fully loaded appliance shall be checked as per GVW of Chassis and weight of front axle and rear axle should not exceed the recommended weight of the chassis manufacturer.</p> <p>b) <b>PUMP TEST</b> :-</p> <p>i) The Pump shall be run for a period of four hours non stop to check the rated output at varying pump pressure with 3 m suction lift using an appropriate size suction hose. The test may be conducted after mounting the engine and pump on the chassis and before connecting the pump to water tank. During the test, the water shall not be replenished for the cooling system and the temperature of Engine Oil shall not exceed 90% of the oil manufacturers rated temperature (whichever is less) and engine shall show no signs of distress during the test. The temperature of cooling water shall not exceed 90% of the oil manufacturers rated temperature (whichever is less) and engine shall show no signs of distress during the test. The temperature of cooling water shall not exceed 90% of the oil manufacturers rated temperature (whichever is less) and engine shall show no signs of distress during the test.</p> <p>ii) The pump casing and impeller shall be subjected to hydraulic pressure of twice the rated pressure or one and an half time the shut-off pressure, whichever is more to detect any leakage, perforation etc.</p> <p>Test shall be made to check fulfillment of the requirements laid down in <b>para 4.2.3.</b></p> <p>c) <b>PRIMER TEST:</b></p> <p>The lift for the primer test shall be measured from the centre of suction eye to the water level and the shall be carried out to check the fulfilment of requirement laid down in <b>para 4.3.</b></p> <p>D) <b>WATER CANNON VEHICLE &amp; SPRAY NOZZLES:</b></p> <p>The tests shall be conducted to check the requirement laid down in <b>para 4.6 to 4.9</b> to the satisfaction of inspecting committee.</p>																
11.	<p><b>ACCESSORIES</b></p> <p>The following accessories shall be supplied along with the vehicle :-</p> <table border="1"> <tr> <td>Armoured suction hose in 2.5 m length with internal diameter of 100 mm with standard round thread coupling</td> <td>S1-902/2410</td> <td>Four Nos.</td> </tr> <tr> <td>Low level suction strainer for use with 100 mm suction hose</td> <td>IS . 907</td> <td>One No.</td> </tr> <tr> <td>Basket Strainer for above</td> <td>IS . 3582</td> <td>One No.</td> </tr> <tr> <td>Suction Wrenches</td> <td>IS . 4643</td> <td>One Pair</td> </tr> <tr> <td>Suction collecting head 3 way Gun Metal</td> <td></td> <td>One No.</td> </tr> </table>		Armoured suction hose in 2.5 m length with internal diameter of 100 mm with standard round thread coupling	S1-902/2410	Four Nos.	Low level suction strainer for use with 100 mm suction hose	IS . 907	One No.	Basket Strainer for above	IS . 3582	One No.	Suction Wrenches	IS . 4643	One Pair	Suction collecting head 3 way Gun Metal		One No.
Armoured suction hose in 2.5 m length with internal diameter of 100 mm with standard round thread coupling	S1-902/2410	Four Nos.															
Low level suction strainer for use with 100 mm suction hose	IS . 907	One No.															
Basket Strainer for above	IS . 3582	One No.															
Suction Wrenches	IS . 4643	One Pair															
Suction collecting head 3 way Gun Metal		One No.															

	RRL hose 63 diameter and 30 m long with Gun metal instantaneous couplings	IS-636 II & IS-J € H Á V ^ ]	4 (30 mtr. Length)
	Light Alloy branch pipe with 12 mm and 19 mm nozzles.		Two sets
12	<u>Warranty</u>	3 years from date of supply / installation.	
	NB:- Inspection of the fabrication work will be carried out in three stages or more by the Inspection Committee, for which necessary inspection expenses for inspection team shall be borne by the Fabricator other than the fabricator of twin cities i.e. Cuttack / Bhubaneswar		
<b>48.</b>	<b>Portable Mosquito Fog Machine</b>		
	<b>Technical Specification</b>		
1	Dimensions (Length x Breadth x Height)	106cm x 29cm x 33cm maximum	
2	Empty weight	7kg approx± 10%	
3	Chemical tank	5ltrs capacity± 10%.	
4	Fuel tank	2ltrs capacity± 10%.	
5	Fuel tank pressure	Non pressurized fuel tank	
6	Max fuel consumption	1.5 . 1.9 ltr/hour	
7.	Flow rate according to nozzle size used	30ltrs / hour max.	
8.	Standard flow rate	10ltrs / hour max.	
9.	Ignition	Electric ignition coil fed by 4 dry cells	
10.	<b>Accessories.</b>	a) Solution Nozzles 1.0	
		b) Fuel and solution funnel with strainer (mesh width 0.1mm)	
		c) Set of maintenance tools and clearing tools.	
		d) Carrying strap	
11	The product should be of ISI marked & ISO marked of reputed brand.		
12	Non -Pressurized Tank - Safety Reasons.		
13	Automatic Cut Out - Off Valve - Safety Reasons.		
14	Should be of reputed brand.		
15	Service facilitates either from OEM or authorised service provider in Odisha.		
16	Copy signed broacher of the product quoted should be provided along with tender documents and details of the product quoted should be mentioned in the Company website.		
17	Warranty	1 year from date of supply	
	Diagram Attached.		
			
<b>49.</b>	<b>Sanitary Destroyer Machine(Incinerator)</b>		
	<b>Technical Specification</b>		
1.	LOAD	10-12 napkins per cycle	
2.	MODE	Automatic	
3.	Dimension	2 feetx 1.5 feetx1.25 feet	

4.	Operation	Timer Cut Off ) Fully Automatic Temp Rise, Automatic Cut Off & Automatic Operation)
5.	Heater	1000W
6.	Temperature Set	350°C ( in test condition it should resist to 700°C with well heat management)
7.	Max Tempeature Limit	450 deg C
8.	Body Material	Mild Steel
9.	Type of insulation	High Quality Ceramic
10.	Coating	Powder coating
11.	Warranty	15 months
	Remarks	Preference will be given to Odisha State Manufacturer / Trader having their own TRADE MARK REGD with sales / service facility within Odisha will be given priority
<b>50.</b>	<b>Road Divider Cone</b>	
	<b>Technical Specification</b>	
1	Material : Fibre glass	
2	Fibre glass TRIANGULAR CONE of total height 700mm with base 400x400x400mm (Approx.) All the three sides to have retro reflective words, i.e (POLICE / STOP) of should be red / orange.	
3	Sho	
4	<b>Warranty :- 2 years from date of supply.</b>	
	Diagram Attached.	
		
<b>51.</b>	<b>Iron Framed Road Barrier (Single)</b>	
	<b>Technical Specification</b>	
1.	Size	MS pipe of outer diameter 48.3 mm, thickness 2.9 mm on the sides of the barrier.
2.	Diameter of Pipe	M.S. 60.3 mm (outer) of approved make
3.	Thickness of pipe	2.9 mm
4.	Rectangular M.S. sheets and Wire Mesh with angle and flat support	- 2 M.S. sheets of 18 gauge ( one at the top and another at the bottom) of approved make - one wire mesh at middle of the barricade Thickness of wire -3mm Square size-30mm x 30mm - 25mm X 25mm x 5 mm angle support and 25mm x 4mm of flat support of approved make
5.	Box type wheel base for the barrier	Made of 60mm X 60mm X3.2mm MS square hollow Welding of two L shaped angles is not acceptable.

6.	Wheels	-4 (four) nos. of rotating polypropylene wheels (white & [   [ ~ ! D Á [ ~ Á Ì + Á Y G + Á { [ ~ } c ^ á Å of the axle should be such that the barrier is stable / balanced.
7.	Painting	The body of the barrier shall be painted white (minimum 2 coats).
8.	Retro reflective snickering of Top MS sheet (Both sides)	Entire top M.S sheet shall be covered with good quality retro reflective adhesive sheet having Commissionerate logo (30 cm heightX20 cm width) on white background æ} á Á   ^ c c ^ ! • Á %oU Ö Q Ù P ŒÁ Ú U Š Q Ô Ć Blue background as per the drawing.
9.	Retro reflective snickering of bottom MS Sheet (Both sides)	Entire bottom MS sheet shall be covered with good quality retro reflective adhesive sheet having letters %oU Ó Ò Ÿ Á V Û ŒØ Ø Q Ô Á Û W Š Ò Û + Á Ç P ^ ä * on Red and Blue background as per the drawing.
10.	Retro reflective stickering of Stop sheet (Both sides)	The stop sheet in the middle of the barricade shall be covered with good quality retro reflective adhesive sheet @æç ä } * Á   ^ c c ^ ! • Á %oÛ V U Ú + Á Ç P ^ ä Red background as per the drawing
11.	Welding	Proper welding at junctions & joints, Smooth & grinded to prevent injury to the user. Appropriately painted to conceal rough edges
12.	Lock System	- One side, one hook of steel 50 mm diameter. - Other side, ring type female port of 60 mm diameter - Two side handles to move the barrier.
13.	Warranty	2 years from date of supply.

14.	<b>Diagram Attached</b>	

<b>52.</b>	<b>Sound Level Meter</b>	
	<b>Technical Specification</b>	
1.	Measurement range	20-140dB RMS in a single measurement range (without the need for switching in ranges)
2.	Accuracy	Class 1, IEC 61672-1:2013
3.	Simultaneous measurement of A, C and linear (Z)	RMS and Peak both
4.	Simultaneous measurement of Fast, Slow and Impulsive	According to IEC 61672-1: (2013).
5.	Measurement	Leq, Sound Exposure Level (LAE), LAF Min, LAF Max,

		Laeq with date and time
6.	Display	Colour display with update period 0.5 seconds
7.	Microphone	+ A O   æ • - polarised back electret.
8.	Internal clock for date and time	
9.	Inbuilt GPS facility to be provided in Sound level meter	
10.	Alkaline or rechargeable cells with at least 11 hrs of back up	
11.	Compatible with portable mini dot matrix printer with 2" wide printing mechanism	
12.	TEMP	Operating range -10°C to 50°C
13.	Storage	Minimum 2GB inbuilt memory/ minimum 750 runs storage
14.	Calibration	Model number should be calibrated by National Physical Laboratory India
15.	Field calibration	Auto calibration by application of 1KHz calibrator, nominal level 114/94 dB ( +/- 1 dB). Separate calibrator to be provided. Sound level meter should detect calibrator and gets calibrated automatically ( user friendly). Calibration should be conducted before and after each reading, and before and after result with date and time should get printed on report.
16.	Record printout from printer to come with State police Logo, date and time of pre and post calibration of noise measurement. GPS location. Decibel readings etc	
17.	Printer	a) Should be BIS approved b) Dot matrix principle c) Handheld portable d) Rechargeable e) Should have internal memory where user can take printout by connecting printer to computer without SLM
18.	Overall weight of kit	Should not exceed more than 3 Kgs
19.	Total kit required	Sound level meter, Acoustic calibrator, Dot matrix rechargeable printer, Chargers, Cells and Carry case
<b>53.</b>	<b>Breath Analyzer with Printer</b>	
	<b>Technical Specification</b>	
a)	General Criteria	
1	The device should be light weight, smaller with modern design & having one button operation for faster & smooth operation.	
2	The housing should be made of impact resistant ABS/PC.	
3	The device should have ingress protection class against dust & water IP 50 or above.	
4	The device should have a integrated clock to show the requirement of calibration interval.	
5	The device should have CE marking	
6	The device should have protected against vibration & shock according to EN 600682-32.	
7	The device should be as per EN 16280, EN 15964, NHTSA, FDA conformity depending on the configuration.	
8	The device should have an operating temperature range of -5 to 50 degree centigrade.	
b)	DEVICE	
1	The device should be ready for use after 4 seconds of switching on.	
2	The device should have a graphic backlight LED display.	
3	The device should have one LED to support the indication of results & earning message.	
4	The device should have various audible signal to support messages & warnings on the	

	display.
5	The device should have { ^ { [ ! ^ Á %Ö æc æÁ   [ * * ^ ! + Á [ ~ Á æc Á   /
6	The power supply should be given by one lithium-ion battery with charge level indicator in display for the user. One battery pack should perform over one thousand test results.
7	The device should have an electrochemical sensor.
8	The device should measure 0 to 5.00% volume of alcohol, if the measurement level is exceeded a message should be displayed.
c)	Sampling
1	The device should have automatic sampling either on minimum volume response blow time is reached or when end of breath is reached depending upon the configuration.
d)	Mouthpiece
1	V @^ Á â ^ ç ã & ^ Á • @[ ~   á Á } [ c Á @æç ^ Á & [ } ç ^ } c ã [ } æ  have new generation mouthpiece with a protecting cover for mouthpiece to protect it from dust.
e)	Warranty: - 1 year from the date of supply.
<b>54.</b>	<b>Industrial Safety Helmet</b>
	<b>Technical Specification</b>
1.	ISI marked (IS: 2925) industrial safety helmet made of tough light weight superior HDPE with minimum 4-6 point STAZ on suspension with LDPE cross members on head.
2.	It should have adjustable ratchet and black nylon chin strap.
3.	Helmet shall be provided with appropriate sweatband to absorb and dry sweat from the forehead and must have the facility / slot to fix ear muff.
4.	Q c Á , ã     Á à ^ æ! Á & [   [ ! ^ á Á %U U Ö T ÇÉÁ Ä Á ^ { à   ^ { Á Ö ã
5.	One piece of extra chin strap shall be supplied along with the helmet.
6.	Warranty: 3 years from the date of supply
<b>55.</b>	<b>Mountaineering Helmet</b>
	<b>Technical Specification</b>
1.	Six-point webbing suspension system conforms to the shape of the head for improved comfort. Shock absorption achieved through deformation of the outer shell.
2.	Center Fit adjustment system ensures centering and optimal stability of the helmet on the head
3.	Ventilation holes with sliding shutters allow the ventilation to be adjusted as needed from the outside
4.	Side slots for mounting hearing protection
5.	Inserts for accepting a VIZIR face shield
6.	Slot for mounting PIXA headlamp
7.	Four clips for mounting a headlamp with an elastic headband
8.	Chin strap designed to limit risk of losing helmet during a fall (strength greater than 50 daN)
9.	Available in six colors
10.	Two thicknesses of foam bands included for customized fit <u>Specifications</u> Weight: 455 g, Head circumference min.: 53 cm Head circumference max.: 63 cm Made in: FR Certification(s): CE EN 12492*

	UIAA						
11.	Warranty : 3 years from the date of supply						
<b>56.</b>	<b>Head Light with attachment</b>						
	<b>Technical Specification</b>						
1.	<b>Description</b>						
i.	Headlamp of hands free for work and Worn on the head with the headband						
ii.	Attached to the helmet with a mounting plate.						
iii.	Placed on the ground CONSTANT LIGHTING technology ensures brightness that does not gradually decrease as the battery drains lighting for professionals that is reliable, practical and durable.						
iv.	Two lighting modes (low & high)						
v.	Mode for close-range work: comfortable flood beam for proximity vision.						
vi.	Automatically switches to reserve mode when batteries are almost drained (signaled by blinking light).						
vii.	Rotating Knob that is ergonomic, even with gloves						
viii.	Storage position helps protect the headlamp lens and prevents inadvertently turning it on						
ix.	May be used in explosive environments.						
x.	Excellent resistance for falls (2 m), impacts, and crushing (80 kg) ( $\pm 5\%$ )						
xi.	Comfortable and washable elastic headband						
2.	<p><b>Technical Specification</b></p> <p>Weight:- 160g (<math>\pm 5\%</math>)</p> <p>Technology:- CONSTANT LIGHTING</p> <p>Beam Pattern: Flood</p> <p>Energy: 2 AA/LR06 batteries (included)</p> <p>Battery Compatibility:-Rechargeable Ni-MH and Lithium</p> <p>Water tightness: IP 67 (Waterproof to . 1 Meter for 30 Minutes (<math>\pm 5\%</math>) No maintenance required after immersion)</p> <table border="1"> <tr> <td>Referecnce</td> <td>E78AHB 2</td> </tr> <tr> <td>Certification (S)</td> <td>CE, ATEX : zone 2/22</td> </tr> <tr> <td>Colour (S)</td> <td>Black / Yellow</td> </tr> </table>	Referecnce	E78AHB 2	Certification (S)	CE, ATEX : zone 2/22	Colour (S)	Black / Yellow
Referecnce	E78AHB 2						
Certification (S)	CE, ATEX : zone 2/22						
Colour (S)	Black / Yellow						
3.	Warranty . 3 years from the date of supply						
<b>57.</b>	<b>Ear Muff (Ear Plug)</b>						
	<b>Technical Specification</b>						
1.	Material: Made of soft eco- friendly Fibre material corded						
2.	Provision: with a lace or same type of other arrangement to keep units of both the ear together.						
3.	Application: To prevent of entry of dust and loud sound in to the year						
4.	materials coming in contact with the body shall not cause irritation						
5.	It shall be resistant to skill, oil, hair oil and ear wax						
6.	Ear protector shall be made of material which is being cleaned and sterilized						
7.	Ear plug should be elastic to the ear canal						
8.	Ear plug should be made so that no deleterious change occurs between -25 and +55 degree centrigade.						
9.	Warranty . 1 year from the date of supply						
<b>58.</b>	<b>Night Lighter (LED torch Light 4 Cell)</b>						
	<b>Technical Specification</b>						
1.	Bulbs:- White LED bulbs of minimum 2.5 watt.						
2.	Batteries:- Powered with 4 D-size super heavy duty batteries						

3.	Casing:- High quality plastic / Metal casing with lanyard.
4.	Accessories:- Four D-size Alkeline Batteries
5.	Brand & Service:- Should be of reputed brand and should have service facilities in Odisha
6.	<b>Warranty:-</b> 1 year from the date of supply
<b>59.</b>	<b>Stainless Steel Tray</b>
	<b>Technical Specification</b>
1.	Made out of best quality of stainless steel (size- F 1 + A Ç Š D A ± 2% F G + A Ç Y D A
2.	Shape: Rectangular
3.	Tray: Divided into 6 Sections of reputed brand
4.	Weight: Not less than 800 Gms ± 2%
5.	Warranty:- 1 year from the date of supply
<b>60.</b>	<b>Stainless Steel Glass</b>
	<b>Technical Specification</b>
1.	Made out of best quality of stainless ste^   Á Ç • ã : ^ Á } [ c Á   ^ • • Á c @æ}
2.	Shape: Round
3.	Weight: Not less than 125 Gms ± 2% of reputed brand
4.	Warranty:- 1 year from the date of supply
<b>61.</b>	<b>Stainless Steel Bucket 10 Ltrs. Capacity</b>
	<b>Technical Specification</b>
1.	Made out of best quality of stainl^ • • Á • c ^ ^   Á , ã c @Á & æ!   ^ ã } * Á @
2.	Weight: Not less than 1200 Gms ± 2% of reputed brand
	Warranty:- 1 year from the date of supply
<b>62.</b>	<b>Stainless Steel Mug (1 Ltr. Mug)</b>
	<b>Technical Specification</b>
1.	Made out of best quality of stainless steel with carrying handle
2.	Warranty:- 1 year from the date of supply



**GENERAL BID FORM**  
**Tender Call Notice No.**  
**Tender Document No. IV**

1. Name  
Full Address.  
Fax No.  
Telephone No.  
E-mail Id
2. Legal status of the firm.
3. Items for which you have submitted the bid.
4. For which of the items above you are the Original Equipment Manufacturer (OEM)
5. Give the location and Address of your factory.
6. For the items listed at (3) above and where You have submitted the bid but you are not The OEM, indicate against each of the names of the OEM.
7. S ã } á | ^ Á & [ } ~ ä | ^ { • Á Á [ Á Á | Á ± ç ã } \* Á ±  
that you have been authorized by the respective OEMs either as dealer or as sale, supply and Servicing agent in respect of the items you are not the OEM.
8. Which of the items, you have submitted the Bids for, will be fully or substantially imported, Indicate the country to be imported from.

9. Have you enclosed the EMD? If yes, mention the amount and its identifying details.
  
10. Have you enclosed all the documents and Papers called for in this tender document? As per Annexure-C ( please enclose the documents serially as per above Annexure).
  
11. If the answer to (10) above is No Which of the documents / papers called for in the tender document have not been enclosed. (Kindly enclose a list of such documents/papers) (Use a separate sheet of paper if necessary)
  
12. Do you have a Post Sales . Servicing Centre in Odisha? If yes, give its Name Full Address, Fax, Tel. Nos. and Email Id:

Seal and Signature of the Bidder.

**A.I.G. of Police (Provisioning),  
Odisha, Cuttack  
Seal and Signature of the  
Tender Calling Authority.**

**ANNEXURE :- C**

**Check List of documents to be enclosed to General bid Form  
(Reference Sl. 23 of General Conditions of contract)**

Sl. No.	Reference Ssl of General conditions of contract	Nature and Type of document	Whether enclosed (with page reference)	
			Yes / No	Page ref
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	
I	1	Proof of OEM (i.e. Certificate issued by Industries department, GST authorities, Registrar of companies) / Authorised Agent of OEM (i.e. Certificate issued by the OEM)		
II	12	Promotional and Technical literature relating to the items tendered		
III	17	Valid Registration certificate issued under <b>GST Act</b> and Income Tax Acts by competent Authorities.		
IV	18	IT Returns, copy of last GST returns filed, Balance Sheet, P/L a/c and trading a/c (All document mentioned above must relate to the previous year i.e. 2017-18) and PAN Card.		
V	20	a) Copy of GST Registration Certificate. b) Affidavit in prescribed format by the suppliers of outside Odisha declaring that they have no business in Odisha nor they have any OGST liability ( <b>Annexure-D</b> ).		
VI	21	EMD of Rs.----- in shape of BD/BC/NSC/FDR/Postal savings Pass Book		
VII	22	Technical bid (i.e. Tender Document No.V) & Financial bid ( i.e. Tender Document No.VI) should be separately sealed in two covers and over them it should be clearly mentioned as Technical / Financial Bid with name of the firm and Signature of the Bidder.		
VIII	36	Proof of past performance regarding supply of tendered item to Government organisation/PSUs i.e. copies of supply order/sale invoice (as per <b>Annexure-“ E</b> th line with special condition of Contract Sl. No.6).		
IX	45	Undertaking to supply spare parts for maintenance of items for 10 years if selected for supplying the tendered item.		

**Signature & Seal of the bidder**

**ANNEXURE-D**

**PROFORMA FOR SUBMISSION OF AFFIDAVIT IN RUPEES OF TEN OF INDIA NON-JUDICIAL STAMP PAPER BY THE FIRMS WHO ARE NOT REGISTERED UNDER ODISHA GST ACT.**

I \_\_\_\_\_, Aged About \_\_\_\_\_ years son of Sri \_\_\_\_\_, the Proprietor of M/S \_\_\_\_\_ do hereby solemnly affirm and declares as under:

1. That I am the deponent of this affidavit.
2. That I do hereby declare that I have not been registered under the Odisha GST Act and have not started any business in the State of Odisha till yet & we have no liability under the Odisha GST Act.
3. I am a registered dealer of the \_\_\_\_\_ State having GST No. \_\_\_\_\_ and I am enrolled under the State / Central GST authority of \_\_\_\_\_ (place). I am authorized to deal in the \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_ items (quoted).
4. That I swear this affidavit to be produced before the concerned authority for future reference and record.
5. That the facts stated above are true to the best of my knowledge and belief and nothing has been concealed thereon.

**Identified**

**Advocate**

**Deponent**

The above named deponent being identified by Shri \_\_\_\_\_ Advocate \_\_\_\_\_ solemnly affirm and states before me that the contents of this affidavit are true to the best of his knowledge.

**Dt.**

**Notary:** \_\_\_\_\_  
(With Seal Stamp)

**ANNEXURE-E****Checklist of documents to be submitted with General Bid form  
(as per special Conditions of Contract)**

<b>Sl. No.</b>	<b>Ref. Sl. of Special condition of contract</b>	<b>Nature and Type of document</b>	<b>Whether enclosed</b>	
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	
1	7	List of names, complete address, Telephone numbers, email IDs of customers to whom the tendered item had been supplied during last 3 years	Yes / No	Page Ref.

**Signature and Seal of Bidder.**

**TECHNICAL BID FORMAT**


Tender Call Notice No.  
Tender Document No.-V

Sl. No.	Name of the Equipment	Whether offered product fulfils the detailed Technical Specifications, Kindly answer. Yes or No only	Offered specifications and details of deviations if any. (Separate paper indicating details in case of major deviations to be attached)
<b>1.</b>	<b>Smart Phone (for Investigation Purpose)</b>		
	<b>Technical Specification</b>		
1.	Screen Size	15.5" ± 0.5" [ 15.5" @ ± 0.5" ]	
2.	Resolution	1080 X 2160	
3.	Chip Set	Qualcomm SDM630 Snapdragon 630 (Indian Manufacturer)	
4.	Processor	2.2 GHz Octa core	
5.	RAM	4 GB	
6.	Internal Storage	64 GB (Supports Micro SD Card up to 256 GB)	
7.	Rear Camera	Dual (12 MP + 5 MP) or higher	
8.	Front Flash	Yes	
9.	Front Camera	16 MP with adoptable low light mode.	
10.	Battery Capacity	3000 mAH	
11.	Turbo Charging	Yes	
12.	Operating System	Android / Oreo 8.0 or higher version	
13.	Finger Print Sensor	Yes, with multiple functions	
14.	Protection	Corning Gorilla Glass 3	
15.	Warranty	1 year	
<b>2.</b>	<b>Night Vision Device (Binocular) (Gen-3)</b>		
	<b>Technical Specification</b>		
	General: The equipment should be handheld, compact, rugged and suitable for Special Forces mobilized in night condition during counter insurgency operations.		
1.	Recognition range should be 100 mtrs. or better for human being.		
2.	Detection range should be 200 mtrs. or better for human being.		
3.	Field of view should be 40° or better.		
4.	Objective focus range should be 25 ms to infinity.		
5.	Eye piece diopetre should be +4D to -4D or better.		
6.	Magnification should be minimum 1x or better.		
7.	Eye piece should have Inter-Pupillary Distance variation from 55 - 71 mm or better.		
8.	I. I. Tube should be Auto gated XD4 / Auto gate Gen 3 or better.		
9.	Resolution of Image Intensifier Tube should be 64 lp / mm or better.		
10.	S/N ratio should be 22 or better.		
11.	Figure or merit should be 1400 or better.		
12.	Image Intensifier Tube	i. Make, model, serial number with documentary proof.	
		ii. Date of manufacturing with authentic proof.	
		iii. Life period of the tube (Mean Time	

		before Failure (MTBF).		
13.	Battery should be 1.5v, AA size pen torch cells.			
14.	Battery life should be minimum 30 Hours or better.			
15.	Full field image in each eye piece for comfortable viewing.			
16.	Independent dioptre adjustment for each eye piece for convenience of user.			
17.	Built in IR L.E.D for map reading in the dark.			
18.	Built in low battery indicator and Automatic brightness control.			
19.	Accessories such as Helmet mount should be available with the tools.			
20.	Should comply the MIL STD-810 or equivalent.			
21.	Should have warranty of at least 03 years from the date of final acceptance.			
<b>3.</b>	<b>PA System with Siren to be fitted in Motor Cycle</b>			
	<b>Technical Specification</b>			
1.	Power out put	22 Watt Maximum, 16 W RMS at 10% THD		
2.	Input Channel	Built in Mic		
3.	Frequency response	100 . 10000HZ +/- 3db		
4.	Signal to noise ratio	60 db		
5.	Speaker Out Put	1 A ô Ê Á X [ ā & ^ Á Ô [ ā   Á		
6.	Power Supply	12 V DC (Motor Cycle Battery)		
7.	Dimension of the Speaker	Control Unit Width . 125 mm (± 5%) Height . 95 mm (± 2.5%) Depth . 120 mm (± 5%) Horn Speaker Dia . 170mm (± 5%)		
8.	2 Tones Siren with volume control			
9.	1 Mic Input			
10.	Bracket should be supplied with mounting			
	<b>FLASHING LIGHT</b>			
1.	Flashing Light required	2 Nos to be fitted on Leg guard		
2.	Light source	High bright LEDs		
3.	Number of LED Use	60 Nos. installed (Tower Technology)		
4.	Material of the dome	Polycarbonate		
5.	Colour of the dome	As per requirement i.e Red/Blue/Amber		
6.	Base Colour	Black/White		
7.	Height	105 mm Approx.		
8.	Outer dimeter of Lance	90 mm approx.		
9.	Outer dimeter of Base	100 mm approx..		
10.	Current required	200 . 250 MA		
	<b>Warranty</b>	1 year from date of supply.		
<b>4.</b>	<b>Anti-Riot PA System with light for Police Patrolling vehicle</b>			
	<b>Technical Specification</b>			
A	<b>LIGHT BAR</b>			
1.	Dimension of the light bar			

	Length	950mm - 1100mm		
	Width	200mm . 250mm		
	Height	50mm without base plate 70mm with magnetic base plate		
2.	Input voltage	12 v DC		
3.	Construction of Bar Light			
	Top	Powder coated slotted aluminium extrusion		
	Lenses	Unbreakable polycarbonate red, Blue and White. four high glow LEDs installed in each red, blue, white multi-dimensional polycarbonate block.		
4.	Mounting	Magnetic or Steel Plate		
	<b>Amplifier</b>			
1.	Power out put	50 Watt Maximum, 40-watt RMS at 10% THD		
2.	Input Channel	G A Y A T Q O A F { X D I E I A S A o F A Y A O E W Y A F E E { X D H H E S A		
3.	Digital Player	MP3 Player with Remote control for USB reader		
4.	Frequency response	100 . 10000HZ +/- 3db		
5.	Signal to noise ratio	60 db		
6.	Tone Controls .	10db at 10 KHZ		
7.	Speaker Out Put	I A o E A F E E A X A   a } ^ A		
8.	Power Supply	12 V DC (Car Battery)		
9.	Dimension	Width . 190 mm (+ 5%) Height . 80 mm (+ 2.5%) Depth . 240 mm (+ 5%)		
10	2 Tones Siren with volume control			
11	Bracket should be supplied for amplifier mounting			
	<b>Speaker</b>			
1.	Input Power	25W RMS / 38W Max.		
2.	Power Tabs	25/20/15/10/5W		
3.	impedance	I E E D I E E D I I E D F S D G S A o		
4.	Frequency response	250-10000 HZ		
5.	SPL at 1KHZ	108 db/1W/1M 122 db / 25W/1M		
6.	Dimension	315MM X 165MM		
7.	Material	ABS (UV Protected)		
	<b>Microphone</b>			
1.	Frequency response	200 . 6000 HZ		
2.	Sensitivity	2.3 MV /PA		
3.	Impedance	I E E A o		
4.	Flexible coiled Cord for easy extension of wire length			
	NB:- The successful bidder shall have to install the equipment at different locations of the State at their own cost i.e. at their quoted gross price soon after receipt of store and distribution among the units. Installation cost should be mentioned separately in the Financial Bid.			
	<b><u>DIAGRAM ATTACHED</u></b>			



				
<b>5.</b>	<b>Flickering Lights (Red, Blue &amp; White) for Police Patrolling vehicle</b>			
	<b>Technical Specification</b>			
1	Dimension of the light bar			
	Length	540 mm		
	Width	210-220 mm		
	Height	50 mm . 80 mm with magnetic bar		
2.	Input voltage	12 volt DC		
3.	Construction of Bar Light			
	Top	Powder coated slotted aluminum extrusion		
	Lenses	Unbreakable polycarbonate red, Blue and White. Six high glow LEDs installed in each red & blue multi-dimensional polycarbonate block. Four high glow LEDs installed in each white multi-dimensional polycarbonate block.		
4.	Mounting	Magnetic		
5.	Warranty	1 year from date of supply		
<b>6.</b>	<b>PA System with Siren to be Fitted in Vehicle</b>			
	<b>Technical Specification</b>			
(a)	<b>AMPLIFIER</b>			
1.	Power out put	50 Watt Maximum, 40-watt RMS at 10% THD		
2.	Input Channel	G Á Y Á T Q Ó Á F { X Ð I É Ī Á S Á ô F Á Ý Á Œ W Ý Á F € € { X Ð H H € S Á		
3.	Digital Player	MP3 Player with Remote control for USB reader		
4.	Frequency response	100 . 10000HZ +/- 3db		
5.	Signal to noise ratio	60 db		
6.	Tone Controls .	10db at 10 KHZ		
7.	Speaker Out Put	I Á ô Æ Å ĩn€		
8.	Power Supply	12 V DC (Car Battery)		
9.	Dimension	Width . 190 mm ( $\pm$ 5%) Height . 80 mm ( $\pm$ 2.5%) Depth . 240 mm ( $\pm$ 5%)		
10.	2 Tones Siren with volume control			
11.	Bracket should be supplied for amplifier mounting			
(b)	<b>SPEAKER</b>			
1.	Input Power	25W RMS / 38W Max.		
2.	Power Tabs	25/20/15/10/5W		
3.	impedance	I € € Ð Í € € Ð Ī Ī € Ð F S Ð G S Á ô		
4.	Frequency response	250-10000 HZ		

5.	SPL at 1KHZ	108 db/1W/1M 122 db / 25W/1M		
6.	Dimension	315MM X 165MM		
7.	Material	ABS (UV Protected)		
(c)	<b>Microphone</b>			
1.	Frequency response	200 . 6000 HZ		
2.	Sensitivity	2.3 MV /PA		
3.	Impedance	1 € € Á ô		
4.	Flexible coiled Cord for easy extension of wire length			
(d)	<b>Warranty</b>	1 year from the date of installation.		
	NB:- The successful bidder shall have to install the equipment at different locations of the State at their own cost i.e. at their quoted gross price soon after receipt of store and distribution among the units. Installation cost should be mentioned separately in the Financial Bid.			
7.	<b>GYM EQUIPMENT FULLY COMMERCIAL RATED MULTY STATION GYM WITH 4 WEIGHT STACK FOR MULTI-FUNCTION WORK OUTS.</b>			
	<b>Technical Specification</b>			
1.	<b>General Features</b>	Chest Press Station, Triceps Press Down Station, Shoulder Press Station, Lat Pull Down Station, Straight Arm Pictorials Fly Station, Rear Delt Fly Station, Ab Crunch Station, Chest Supported Row Station, Leg Press with Calf Press Stations, Leg Extension and Curl Station, Bicep Curl from Low Pulley.		
2.	<b>Frame Specification</b>	T æ ç ã { ~ { Á F F Á * æ ~ * ^ Á G G + ç   + Á @ã * @Á c ^ } • ã   ^ A tube pipe must use along with heavy gauze bolts reinforcement plates must use for rock solid stability for the machine. <b>PULLEY:-</b> All pulley of machines must impact resistant, fibre glass reinforced nylon pulleys with revolve on sealed ball bearing for friction free. <b>CABLES:-</b> Minimum 2200lb test galvanized steel cable with PVC coat must use. <b>FINISH:-</b> Electro statically powder coat finish for scratches, corrosion resistant paint finish must use for these machines. <b><u>The equipment should be of reputed Brand.</u></b>		
3.	<b>Warranty</b>	2 years from the date of supply.		
8.	<b>GYM EQUIPMENT FULLY COMMERCIAL RATED <u>MOTORISED TREADMILL</u></b>			
	<b>Technical Specification</b>			
1	Motor	Minimum 4HP AC		
2	Speed Range	0.8 . 22 KMPH		

3	Speed Control	Inverter		
4	Frame	Frame must made of Aluminium and Main Frame made of Steel		
5	Incline / Elevation	0 . 20%		
6	Running Surface	Minimum (550x1500mm) and Deck Size minimum (700mm x 1350mm x 25mm)		
7	Maximum user weight	180 Kg		
8	Computer Display	LED for time, Distance, Calories, Pace, Speed, AVG. Speed, Incline, Pulse etc.		
9	<b><u>The equipment should be of reputed Brand.</u></b>			
10	<b>Warranty</b> :- 2 years for Gym equipment and 5 years for Motor of Motorised Treadmill from the date of supply.			
<b>9.</b>	<b>GYM EQUIPMENT FULLY COMMERCIAL RATED ELLIPTICALCROSS TRAINER</b>			
	<b>Technical Specification</b>			
1.	<ul style="list-style-type: none"> <li>U { [ [ c @ Á G € + Á • c   ã å ^ Á   ^ } mini@inÁ40) Head Rate Monitor . Contact and Telemetric, Display-LED type, with Turbo Cooling Fan, Resistance System- with Integrated Generator Flywheel.</li> </ul>			
2.	<b>Warranty</b> :- 2 years from the date of supply			
<b>10.</b>	<b>GYM EQUIPMENT FULLY COMMERCIAL RATED ROWER MACHINE (ERGO METER)</b>			
	<b>Technical Specification</b>			
1.	<ul style="list-style-type: none"> <li>&lt; Wind / Air rower, Ergonomic design with natural rowing.</li> <li>&lt; Machine workout for body part like LEGS, CORE, UPPER BODY and as well as Cardio workouts.</li> <li>&lt; Machine length . { ã } ã { ~ { Á ĩ q Á F F + Ê Á , ã G € + @ Á G I +</li> <li>&lt; Minimum user weight capacity -500 lbs</li> <li>&lt; Powder coat finish for extra durability.</li> <li>&lt; Automatic start on / off monitor system</li> <li>&lt; Performance Data . Track distance, Speed, pace, Calories, Burned reading.</li> <li>&lt; PM4 feature for heart rate monitoring with chest strap belt wireless compatibility.</li> <li>&lt; Rechargeable Battery pack . self generated energy from workout charge for the battery.</li> </ul>			
	<b><u>The equipment should be of reputed Brand.</u></b>			
2.	<b>Warranty</b> :- 2 years from the date of supply			
<b>11.</b>	<b>GYM EQUIPMENT FULLY COMMERCIAL RATED LEG PRESS / HACK SQUAT MACHINE PLATE LOADED</b>			
	<b>Technical Specification</b>			
1.	<ul style="list-style-type: none"> <li>&lt; Quad track roller system operate smoothly and distributes weight evenly.</li> <li>&lt; Both back pads utilize a quick flip-and-lock mechanism.</li> <li>&lt; Extra-heavy gauge Diamond plate foot platforms for both Leg Press and hack Squat Positions.</li> <li>&lt; Easy . access under-carriage plate load system.</li> <li>&lt; Extra heavy-å ~ c ^ Á { ã } ã { ~ - Gauge steel Main frame minimizes torsional flex for maximum strength and stability.</li> <li>&lt; Ultra-tough, double-• c ã c &amp; @ ^ å Á Ó æ &amp; \ Á æ } å Á Û @ [ ~   å contoured for maximum support of the lower back and shoulder areas.</li> <li>&lt; Three lock out positions for user safety and convenience.</li> <li>&lt; Minimum capacity of 1,000lbs.</li> <li>&lt; 3 safety lockout positions.</li> </ul>			

	<b><u>The equipment should be of reputed Brand.</u></b>			
2.	Warranty :- 2 years from the date of supply			
<b>12.</b>	<b>GYM EQUIPMENT FULLY COMMERCIAL RATED <u>CABLE CROSS OVER HIGH END</u></b>			
	<b>Technical Specification</b>			
1.	<ul style="list-style-type: none"> <li>◁ Top Grade Sealed Bearing 105MM Pulley.</li> <li>◁ 6MM Cable Covered by PU (Oil Sealed) can burden 1400kg weight strength.</li> <li>◁ Double Powder Coating</li> <li>◁ Made of High quality Tubes: 50*100 mm steel capsule tube of 2.5 mm thickness.</li> <li>◁ Weight stack covered with double side metal sheet.</li> <li>◁ Special system for stack adjustment</li> <li>◁ Double angled pulley system for 22 easy to adjust positions per column offering a total body worked for a variety of workout.</li> <li>◁ Adjustable Hand Grips &amp; multi position chinning bars.</li> <li>◁ Weight Stack:220Lbs x 2</li> <li>◁ Adopt Magnetic Bolt, More Convenient and Safety.</li> <li>◁ Machine Weight-350 Kgs</li> </ul> <b><u>The equipment should be of reputed Brand.</u></b>			
2.	Warranty :- 2 years from the date of supply			
<b>13.</b>	<b>GYM EQUIPMENT FULLY COMMERCIAL RATED <u>SPIN BIKE</u></b>			
	<b>Technical Specification</b>			
1.	Brake	Friction Braking system & Emergency Lock		
	Pedals	Aluminum		
	Drive	Belt		
	Fly Wheel	22 Kg Minimum		
	Adjustments	Saddle & Handle Bar . Horizontal & Vertical		
	Max. User Weight	215 Kgs		
	Machine Weight	60 Kgs / 65 Kgs (N.W. / G.W.)		
	<b><u>The equipment should be of reputed Brand.</u></b>			
2.	Warranty :- 2 years from the date of supply			
<b>14.</b>	<b>PRO Pole Vault Pit (8 Mtr. X 6 Mtr. X 0.8 Mtr.) without free pole</b>			
	<b>Technical Specification</b>			
1	Made out of high quality water proof fabric urethane foam, 3 base unit, 2 front tapered blocks and 7 cm top pad IAAF certified.			
2	Covers are made of non-tearing woven polyester fabric top pad is encased in non-tearing vinyl quoted woven polyester mesh fabric for soft landing.			
3	Pole Vault Pit International PV 10.00 m x 6.60 m x 85 cm (Size variation $\pm$ 5%)			
4	Size	Qty.		
i)	Base Unite Back	4		
ii)	Base Unite Front Left	1		
iii)	Base Unite Front Right	1		
iv)	Top Pad	1		
v)	Protection Pad	2		
vi)	Options			
vii)	Rain cover Platform			
5	Warranty	1 year from date of supply.		

<b>15.</b>	<b>International High Jump Pit (6 Mtr. X 4 Mtr. X 0.7 Mtr. ) without free high Jump Stand</b>			
	<b>Technical Specification</b>			
1	Made out of high quality water proof non tearing fabric. Urethane foam, separate base units and 7 cm top pad IAAF certified . Covers are made of non-tearing woven polyester fabric. Top pad is encased in non tearing vinyl coated water ployster mesh fabric for soft landing.			
2	7.20 m x 4.00 m x 71 cm Components included			
3	Size	Qty.		
i)	Bass Unite Centre	2		
ii)	Base Unite Front Left	1		
iii)	Base Unite Front Right	1		
iv)	Top Pad	1		
v)	Options	2		
vii)	Rain Cover Platform			
viii)	Warranty	1 year from date of supply.		
<b>16.</b>	<b>Rechargeable Solar Lantern</b>			
	<b>Technical Specification</b>			
1	Charging Option	Dual & @æ! * ā } * Á c @! [ ˇ * @Á %oœÓ Á Ú [ , ^ ! Á U ˇ c   ^ c +		
2	Battery Type	Has long lasting Lithium Ion Battery with minimum 500 rechargeable cycles		
3	Product Protection Features	Built in deep discharge, short circuit and over charge protection		
4	Charging	Charging time through solar panel (7 hours under bright sun light and 6 hours through AC adapter)		
5	Operating Time	4 - 5 hours of operating time		
6	Solar Panel	Has a 2.5 w, 9V solar panel which provides quick charging features. The solar panel has an aluminum frame which is durable.		
7	Product Protection Features	Built in deep discharge, short circuit and over charge protection		
8	Accessories	One AC adapter should be provided.		
9.	Should be of Reputed Brand like Sukam, Eveready, Philips& Bajaj.			
10	Service facilitates either from OEM or authorized service provider in Odisha.			
11	The e-mail ID of the person who is giving authorization should be mentioned which may be verified, if required.			
12	Copy signed broacher of the product quoted should be provided along with tender documents and details of the product quoted should be mentioned in the Company website.			
13	<b>Warranty</b>	2 years from date of supply.		
<b>17.</b>	<b>Polypropylene Rope (Cordon Rope)</b>			
	<b>Technical Specification</b>			
1.	Construction	3 strand Hawser Laid and 8 strand plaited conforming to IS : 5175/1992 with Amdt. No.1 and 2 Reaffirmed 2003.		

2.	Diameter	30 mm		
3.	ISI marked	Should have ISI marked		
4	<b>Warranty</b>	2 years from date of supply		
<b>18.</b>	<b>Water Filter System (200 LPH Capacity)</b>			
	<b>Technical Specification</b>			
1.	Water flow	200LPH		
2.	UV lamp	16 Watt		
3.	Power rating	35 Watt		
4.	Purification process	Sediment Filter . Activated Carbon - Ultra violet		
5.	Operating voltage	160V . 270V AC, 50Hz		
6.	Water inlet pressure	0.4 Kg/Sq. Cm (Min) 2.0 Kg/Sq. Cm (Max)		
7.	Indication	LCD indicator to indicate the status of purification & an alert when the filter cartridge needs replacement		
8.	Water control sensor	When the purifier connected to a water storage tank , it automatically switch ON the purifier when the water level is low and switch it OFF when full.		
<b>19.</b>	<b>Mobile Water Filtration System without Electricity</b>			
	<b>Technical Specification</b>			
	<b>(a) Water Filtration System</b>			
	<b>TECHNICAL SPECIFICATIONS</b>			
1	Technology	Multi Stage (minimum 5 stages) Filtration System (Sand Filters + Water softener + Micro Filtration using PP cartridge (< 1 micron) + Ultra Filtration to remove bacteria and viruses +Activated carbon treatment)		
2	Micro Filter	20 > 1 micron multipurpose pure filter in big housing		
3	Ultra Filtration (UF)	using ultra filters membrane based & inter connected with CPVC food grade tubing (Approx. 0.01 micron)		
4	Carbon Treatment	Silver impregnated post carbon in all pre-coated GI sheet lockable box mounted on anti-vibrating mounting.		
5	Output Flow	Approx. 1200 to 1500 Ltrs. per hour (20-25 LPM)		
6	Storage of Clean water	Approx. 500 Ltrs. SS Tank (ISI . 304 stainless Steel Storage tank of Capacity 500 liters with sanitary finish Outlet valve 25mm Ball valve Tank mounted on Steel frame & anti vibrating mounting.)		

7	Mounting Unit	To be mounted on back side of three wheeler cargo		
8	Pumping Water	The pump of 1 HP capacity on the steel frame can be run by centrifugal clutch mechanism & coupled with PTO shaft mechanism of three wheeler cargo engine.		
9	Out put	Clean portable water output in tap / valve system		
10	Brand	Should be of reputed brand having service facility in Odisha.		
11	<b>The supplier shall install &amp; demonstrate all the above water filtration system at his own cost on a three wheeler cargo.</b>			
12	<b>Warranty</b>	2 years from date of supply / installation and AMC for 3 <sup>rd</sup> , 4 <sup>th</sup> & 5 <sup>th</sup> year.		
<b>20.</b>	<b>Hand Cuff (Stainless Steel)</b>			
	<b>Technical Specification</b>			
	The operation for double locking(both hands) metallic handcuffs to be as:-			
1	Material :- Nickel coated metallic with nickel finishing			
2	A mechanism which locks a handcuff pawl in an engaged position, and prevents the ratchet from advancing further in the closing direction.			
3	A ring-shaped shackle for the wrist, usually one of a pair connected by short chain.			
4	Three independent ratchet bar with inclined teeth providing extra locking positions which engages the teeth on the ratchet of rotating arm permitting it to advance in the closing direction only.			
5	Rotating arm backloads for speed cuffing			
6	Double Locking Mechanism			
7	<b>Weight-</b> 280gms± 15 gms			
8	<b>Finish :- Bright Nickel Finish</b>			
9	<b>Dimensions:</b> Each handcuff of each pair to have minimum opening of 55 mm for insertion of the human wrist. The inside perimeter of the handcuff to be a minimum 200 mm when the ratchet is engaged at the first notch entering the locking mechanism. The inside perimeter of the handcuff to be a maximum of 165 mm when the ratchet is engaged at the last notch entering the locking mechanism. The maximum overall length of the pair of handcuffs to be 2200 mm.			
10	<b>Corrosion Resistance:</b> To show no substantial corrosion and to continue to function in a normal manner under exposure to saline spray.			
11	<b>Testing Standard:</b> (a) Full Compliance with N.I.J Standard 0307.01. NIJ certificate to be provided. (b) Test Certification from a reputed lab (NABL accredited Government or International)duly incorporating above parameters must be provided			
12	Two standard keys are provided with each Handcuff			
13	<b>Warranty: 2 years from date of supply.</b>			
<b>21.</b>	<b>Automatic Master Printer / Digital Duplicator</b>			
	<b>Technical Specification</b>			
	<b>General</b>			
1	Type	Digital Desktop		
2	Printing Process	Fully-automatic digital process		

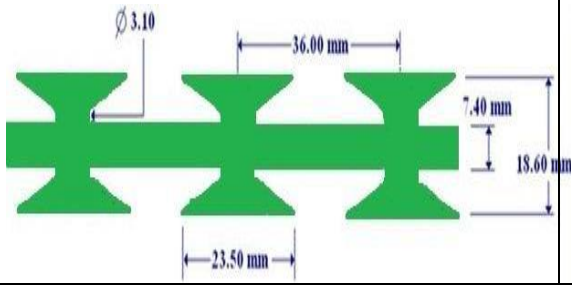
3	Originals	Sheet		
4	Original size	Minimum . 90 x 140 mm Maximum . 275 x 395 mm		
5	Print paper size	Minimum . 90 x 140 mm Maximum . 275 x 395 mm		
6	Print paper weight	35.0 . 128 g/m <sup>2</sup>		
7	Print Area	Maximum 210 x 355 mm		
8	Print Speed	60 . 90 sheets per minute (2 steps)		
9	First print speed	Less than 45 seconds		
10	Resolution	300 x 300 dpi minimum		
11	Image models	Letter mode, photo mode. Photo / Letter mode		
12	Image positions	Vertical . ±10 mm Horizontal . +10 mm		
13	Reproduction Ratios	Pre-set enlargement 115.122.141% Pre-set reduction 71.82.87.93%		
14	Colour printing	By replacing colour drum		
15	Paper feed / delivery table capacity	500 sheets (75 g/m <sup>2</sup> ) minimum		
16	Power source	220 . 240V 50 . 60 Hz		
17	Power consumption	Maximum . Master making less than 175 W Printing Less than 175 W (at 90 sheets per minute) standby. 35W		
18	<b>Warranty</b>	1 year from date of supply / installation.		
	<b>NB :- The successful bidder shall have to install the equipment at different locations of the State at their own cost i.e. at their quoted gross price soon after receipt of store and distribution among the units. Installation cost should be mentioned separately in the Financial Bid.</b>			
<b>22.</b>	<b>Portable Gen Set 7 KVA</b>			
	<b>Technical Specification</b>			
1.	Max. Power Output	7000 VA		
2.	Rated Power Output at 230 v/50 Hz	5500 VA 83uthori.		
3.	Engine Type	4 Stroke, Single Cylinder, Air Cooled		
4.	Engine Throttle	Electronic Governor (Load Sensitive)		
5.	Inverter Technology	Pure Sine Wave Output		
6.	Engine Control Panel Display	Monitor Equipped display Engine RPM, Generator Load (in VA), No. of Hours Run (Cumulative) Battery Voltage		
7.	Starting	Electric/ Recoil Start		
8.	Fuel Type	Unleaded Petrol		
9.	Fuel System	Electronically Controlled Duel Injection system		
10.	Fuel Tank Capacity (Ltr.)	19 to 20 Ltrs.		
11.	Continuous Operating Hours	12 at 50% Load 83uthori. / 6.5 at rated load 83uthori.		
12.	Oil Alert System	Yes		
13.	Dry Weight (Kg)	123.2 Kg with battery 83uthori.		
14.	Dimensions (LxWxH mm)	1261 X 680 X 722 approx.		



15.	Air Cleaner	Dual		
16.	Exhaust	Large Capacity Muffler with 3-Way catalyzer		
17.	<b>Warranty</b>	1 year from date of supply.		
<b>23.</b>	<b><u>Diesel Generator Set 25 KVA</u></b>			
	<b>Technical Specification</b>			
1.	Control Panel	AMF		
2.	No. of phases	Three		
3.	Type of Engine Cooling	Water Cooling		
4.	Rated Voltage (in Volts)	415 V		
5.	Rated Capacity (in KVA)	25 KVA		
6.	ALTERNATOR			
	(a) The Alternator shall be self excited and self regulated of 25 KVA rating in three phase at 415 Volt,50 Hz, 1500 RPM and 0.8 power factor and shall conform to IS: 13364(Part 2)/1992(reaffirmed 2003). The alternators shall be of brush less type with VG-1 Grade or better grade of voltage regulation.			
	(b) The alternators shall be screen-protected drip proof with Minimum IP-21 degree of protection as per IS:4691/85 ( Reaffirmed 2004).The class of $\bar{a}$ } • ~   æc ã [ } Á [ ~ Á c @^ Á Œ  c ^ i } æc [ i Á , [ ~   á be 415 V for three phase.			
	Diesel Engines to be used in the DG Sets should be of Naturally Aspirated type.			
7	<b>DIESEL ENGINE (Naturally Aspirated):</b>			
	(i) Diesel Engine shall be water cooled as specified, electric start developing required B.H.P at 1500 RPM with Class A-2 Governing or better for alternator to deliver specified continuous KVA output at 0.8 pf lag at NTP conditions(all rating shall be tested at 0.8 PF lag). The Diesel Engine should be capable of providing 10% overload for one hour for every 11 hours continuous running at full load.			
	(ii) Naturally aspirated engines of rating above 19 KW shall conform to IS:10,002/1981			
	(iii) The specific fuel consumption of engine shall be as per IS specn.			
	(iv) The Diesel Engine shall be complete with the following accessories:			
	(a) Fuel tank with capacity for 12 hours continuous running at full load.			
	(b) Engine instrument Panel consisting of starting switch with Key, Lube Oil temperature and pressure gauges, (water temperature gauge in case of water cooled engines), RPM indicator and hour meter.			
	I Safety controls to shut down the engine in the event of low lube oil pressure or high cylinder head temperature in case of air-cooled engines			
	(d) Exhaust silencer of Residential type.			
	I 12V starting system complete with starter motor, charging alternator and Cutout.			
	(f) Lead Acid , semi maintenance free or sealed maintenance free battery of suitable ratings with connecting cables and the battery/ies shall conformto relevant IS Specn.The batteries of only following make shall be accepted: Exide, TUDOR, Amco, Amaron,Amar Raja, Tata Green, Cummins pulse lite,			
	(g) Standard set of tools consisting of a set of 3 spanners, one screw driver,			

	one standard plier and one nose plier of appropriate size shall be provided to the consignees along with DG sets, free of cost for each of DG sets.		
8	<b>AMF CONTROL PANEL :</b>		
	(i) Automatic mains failure (AMF) control panel, where applicable, shall be Able to start up the DG set and transfer the load on to the DG set on mains failure without requiring any human intervention. Similarly on restoration of mains supply, it shall be able to transfer the load to mains supply and switch off the DG set automatically.		
	(ii) The AMF panel shall be an enclosure with the IP-53 degree of protection conforming to IS/IEC 60947(Pt-1)/2007, fabricated from minimum 1.5 mm thick steel sheet duly pre-treated and aesthetically finished.		
	(iii) The AMF Control Panel shall have the following instruments :		
	(a) Microprocessor based relay with composite meter for digital display of		
	i) Generator voltage/AC Mains voltage.		
	ii) Generator Current.		
	iii) Power Factor.		
	iv) Frequency		
	v) Energy		
	vi) Three attempts engine start/engine cranking relay.		
	vii) On . delay timer for load change over		
	viii) On-delay timer for engine shut off		
	ix) Over current relay.		
	(b) Mode selector switch for setting the panel on any one position such as off or auto or manual or test.		
	I Engine On-Off switch (Push button type)		
	(d) MCCB of suitable rating shall be provided.		
	I Rectangular aluminum bus bars (one number for each phase, neutral and Earthing terminal) of adequate ratings duly colour coded with heat shrinkable PVC sleeves.		
	(f) Two contactors of suitable rating (one for DG set & one for AC mains) with over load relay.		
	(g) Under-voltage relay for mains.		
	(h) Battery charger complete with voltage regulator, float or booster selector switch, on-off switch, voltmeter and ammeter for charging the battery from mains. This will be in addition to the battery charging alternator fitted on the engine.		
	(i) Instrument & Control Fuses.		
	(l) Any other switch, instrument, relay or contactor etc. essential for smooth and trouble free functioning of DG set with AMF panel. (To be specified by the tenderers in their offer with complete details of the item).		
9.	Should be of reputed brand.		
10	Service facilitates either from OEM or 85authorizat service provider in Odisha.		
11	The e-mail ID of the person who is giving 85authorization should be mentioned which may be verified, if required.		
12	Copy signed broacher of the product quoted should be provided along with		

	tender documents and details of the product quoted should be mentioned in the Company website.		
13	Installation, testing and commissioning of Diesel Generator sets will be made by the firm at their cost.		
14	<b>Warranty</b>	1 year from date of installation.	
<b>24.</b>	<b><u>Diesel Generator Set 380 KVA</u></b>		
	<b>Technical Specification</b>		
<b>A.</b>	<b>Output Capacity Rating / Phase</b>		
	Nominal Rated Capacity (KVA)	380	
	No. of phase	3 Phase	
	Capacity of Engine	15920 CC	
	Engine Power (kWm)	346	
	ISI marking to IS:10001 for engine	False	
	Type of Engine Cooling	Liquid Cooled	
	Type of Governor	Electronic	
	Class of Governor	AO	
	Number of Cylinders (nos.)	8	
	No. of Strokes (nos)	4	
	Rated RPM of Engine	1500	
	Overload Capacity for one hour for every 11 hours continuous running at full load	10%	
	Specific Fuel Consumption (gm / kWh)	203.43	
	Starting Voltage	24 volt	
<b>B.</b>	<b>ALTERNATOR</b>		
	Rating of AC Generator (KVA)	380	
	Power Factor of AC Generator	0.8	
	Efficiency at rated power factor at 75% of full load	95.2	
	Compliance of Alternator to IS:13364 (Part-1)	Yes	
	Type of Alternator	Brushless	
	Voltage Regulation Grade	VG 3	
	Alternator IP Rating	IP 23	
	Class of Insulation	H	
<b>C.</b>	<b>CONTROL PANEL</b>		
	Control Panel	AMF	
	IP rating of Control Panel	IP 53	
<b>D.</b>	<b>ACOUSTIC ENCLOSURE</b>		
	Sheet Thickness	1.6 millimeter	
	Thickness of Foam	50 Millimeter	
	Density of Foam for sound Insulation	28	
	Noise Level at 1 Meter (dB)	75	
<b>E.</b>	<b>BATTERY</b>		
	Battery Type & Specification	Low Maintenance free to IS:14257 for high cranking performance	

	Battery Capacity (Ah)	180		
	No. of Batteries	2		
<b>F.</b>	<b>TEST REPORTS</b>			
	Availability of Type test report for Engine from Central Govt. / NABL / ILAC accredited laboratory	Yes		
	Availability of Type test report for Alternator from Central Govt. / NABL / ILAC accredited laboratory	Yes		
	DG Set meet requirements of Environmental (Protection) Rules 1986, in respect of noise and emission norms, as described in STC	Yes		
<b>F.</b>	<b>WARRANTY &amp; INSTALLATION</b>			
	Installation and Commissioning	With Installation		
	Warranty	3 years from the date of installation and AMC for 4 <sup>th</sup> , 5 <sup>th</sup> & 6 <sup>th</sup> year		
<b>25.</b>	<b>Punched Tape Concertina Coil</b>			
	<b>Technical Specification</b>			
	<b>Description : Electro-Galvanized</b>			
01.	Dia Of Coil	660 mm (Before Stretch)		
02.	Length	6-7 Mtr.		
03.	Clipping Points	3 nos. per Helical Loop		
04.	Punched Tape Barb Profile	Super Reinforced Punched Barbed Tape (SRPBT)		
05.	BARB Dimensions	<p>Barb Tape Length . 23.50 mm minimum            Barb Width . 18.60 mm minimum            Barb Spacing . 36.00 mm minimum            Centre Width . 7.40 mm minimum</p> 		
06.	Central core wire	Made from 2.60 mm dia High Tensile wire as per IS-4454 Galvanized as per IS-2629		
07.	Razor Punched Strip	Razor punched tape is Steel comprising of Aluminum base with Zinc alloy @ 150 gm/ m2 conforming to <b>ASTM A-792/A-792M</b> with additional primer treatment of Epoxy/ Polyurethane & Final Paint Top coat of Caulfield Green Shade(BSL 139) by Hot Dipping Process.		
08.	Weight	8.00 Kg(±0.5)		

09	<b>Warranty</b>	1 year from date of supply		
<b>26.</b>	<b>Water Cooler 40/80</b>			
	<b>Technical Specification</b>			
1.	Cooling capacity at rated condition	40 Litres / hour		
2.	Cooling capacity at 10 <sup>0</sup> centigrade.	65 Litres / hour		
3.	Storage capacity	80 Litres		
4.	Power Supply at rated current	2.5 AMP		
5.	Power Input	450 Watt		
6.	Chiller Tank, Top lead, Front Panel Top, Front panel Bottom, Side panel/rear panel, Drip Tray	Stainless Steel		
7.	Faucets	Brass (Cr plated)		
8.	No of faucets	2nos		
9.	Condenser tubing	Grooved copper		
10.	Legs	PP		
11.	Water inlet hose pipe	Should be provided		
12.	Overflow pipe	Should be provided		
13.	Compressor	Reciprocating		
14.	<b>Warranty</b>	1 year from date of supply		
<b>27.</b>	<b>Desktop Computer</b>			
	<b>Technical Specification</b>			
1	Processor	i5 (7 <sup>th</sup> generation), 3 GHz or more		
2	Memory	8GB DDR 4 (Expandable up to 32 GB)		
3	HDD	1TB or above		
4	Optical Drive	DVD-RW		
5	Network	Ethernet 10/100/1000/Mbps		
6	Graphics	Built in on board Graphics Card with RAM size 2 GB or more		
7	USB	(1) USB 3.0 Minimum 2 Nos. (2) USB 2.0 Minimum 4 Nos.		
8	Operating System	Window 10 Professional 64 Bit and MS Office Pre-loaded.		
9	Monitor	G F + Á [ ; Á æ à [ ç ^ Á Š Ò Ö Á Ô [		
10	Key Board	Standard		
11	Mouse	Optical		
12	Warranty	05 years		
13	Service facilities	All over Odisha		
<b>28.</b>	<b>Heavy Duty Printer With Lan Connectivity (Copy, Print, Scan)</b>			
	<b>Technical Specification</b>			
a)	<b>PRINT</b>			
i)	Printing Method	Monochrome Laser Beam Printing		
ii)	Print Speed (A4)	25 ppm or better		
iii)	Print Resolution	600 x 600dpi or better		
iv)	Print Quality with Image Refinement Technology	1,200 x 1,200dpi (equivalent) or better		
b)	<b>COPY</b>			
i)	Copy Speed (A4)	25ppm		

ii)	Copy Resolution	600 x 600dpi		
iii)	Maximum Number of Copies	Up to 999 copies		
iv)	Reduce / Enlargement	25 . 200% or higher		
c)	<b>SCAN</b>			
i)	Scan Type	Colour Contact Image Sensor		
ii)	Scan Resolution	Optical :- Up to 600 x 600dpi Driver Enhanced :- Up to 9,600 x 9,600dpi		
iii)	Maximum Scan Size	Platen Glass :- Up to 216 x 297mm		
iv)	Scan Speed <sup>(*)2</sup>	Platen Glass :- Approx. 3.0secs. per sheet (mono) Approx. 4.0secs. per sheet (colour)		
v)		ADF (A4) :- 20 / 15ipm (mono / colour)		
vi)	Colour Depth	24-bit		
vii)	Pull Scan	USB and Network		
viii)	Push Scan (Scan To PC) with MF Scan Utility	USB and Network		
ix)	Scan To Cloud	MF Scan Utility		
d)	<b>PAPER HANDLING</b>			
i)	Auto Document Feeder (ADF)	35 sheets (80g/m <sup>2</sup> )		
ii)	Available Paper Size for ADF	A4, B5, A5, B6, Letter, Legal (Min. 105 x 148mm to Max. 216 x 356mm)		
iii)	Paper Input	Standard Cassette :- 250 sheets		
iv)		Multi-Purpose Tray :- 1 sheet		
v)	Paper Output (Based on 68g/m <sup>2</sup> )	100 sheets (face down)		
vi)	Paper Size	Standard Cassette :- A4, A5, Legal, Letter,		
vii)	Paper Type	Plain, Heavy, Recycled, Color, Bond, Label, Index Card, Envelope		
e)	<b>CONNECTIVITY &amp; SOFTWARE</b>			
i)	Standard Interface			
ii)	Wired	High-Speed USB 2.0 or better 100 /1000 Base-T Ethernet		
iii)	Wireless	Wi-Fi 802.11b/g/n		
iv)	Print	LPD, RAW, IPP / IPPS, WSD-Print (Ipv4, Ipv6)		
v)	Scan	WSD-Scan (Ipv4, Ipv6)		
vi)	TCP / IP Application Services:	Bonjour(mDNS), DHCP, BOOTP, RARP, Auto IP (Ipv4), DHCPv6 (Ipv6)		
vii)	Management	SNMPv1/v3 (Ipv4, Ipv6), HTTP / HTTPS, SNMP		
viii)	Network security			
ix)	Wired	IP / Mac address filtering, SNMPv3, SSL (HTTPS / IPPS), IEEE802.1x		
x)	Wireless	WEP 64 / 128-bit, WPA-PSK (TKIP / AES), WPA2-PSK (AES)		
xi)	Software Included	Printer driver, Scanner driver, MF Scan Utility, Toner Status		
f)	<b>GENERAL</b>			

i)	Device Memory	512MB		
ii)	Operational Panel	5-line BW LCD		
iii)	Dimensions (W x D x H)	390 x 371 x 360mm (Cassette closed) 390 x 441 x 360mm (Cassette opened)		
iv)	Weight	Approx. 12.1kg (without cartridge) Approx. 12.7kg (with cartridge)		
v)	Power Consumption			
vi)	Maximum	1,150W or less		
vii)	During Operation (Avg.)	Approx. 490W		
viii)	Operating Environment	Temperature: 10 . 30°C Humidity: 20 . 80% RH (no condensation)		
ix)	Power Requirement	AC 220 . 240V ( $\pm 10\%$ ), 50 / 60Hz ( $\pm 2\text{Hz}$ )		
x)	Consumables <sup>(*6)</sup>	Toner (Standard) :- Cartridge 337: 2,400 pages (bundled: 1,700 pages)		
x)	Monthly Duty Cycle <sup>(*7)</sup>	15,000 pages or higher		
g)	<b>Warranty</b>	1 year from date of supply and AMC breakup for 2 <sup>nd</sup> , 3 <sup>rd</sup> , 4 <sup>th</sup> & 5 <sup>th</sup> year.		
<b>29. Ceragem (Automatic Thermal Massager)</b>				
<b>Technical Specification</b>				
1.	Voltage	220-240V, 50/60 Hz		
2.	Consumption Power	240 W		
3.	Recommended height for Body Sensing	120cm . 186 cm		
4.	SD Card format type	FAT32		
5.	Number of user use files	100EA		
6.	MP3 Playable files	MP3		
7.	MP3 maximum power	2.2 W		
8.	Measurement	When spread out: 700mm x 2016mm x450 mm ( $\pm 5$ mm) When Fold: 700 mm x 1258 mm x450 mm ( $\pm 5$ mm)		
9.	Weight (excluding component)	Main body: 23 kg( $\pm 2$ kg), Sliding support: 14 kg( $\pm 2$ kg) Frame: 16 kg( $\pm 2$ kg)		
10.	Warranty	01 year from the date of installation		
<b>30. Fireball</b>				
<b>Technical Specification</b>				
1	Product Type	Portable Fire Extinguisher ( Fire Extinguisher Ball \ As Per IS 2190)		
2	Manufactured By	Indian Manufacturing Co. Preferably Start up India recognized Company under Make in India concept of Govt. of India		
3	Suitable For Class	A,B & C Class		
4	Dry Chemical Powder Type	As Per IS 14609		
5	Weight of Extinguishing Agent	1.3 $\pm$ 0.2 kg		
6	Active Material Content	As Per IS 14609		
7	Total Wight of the Product	1.5 $\pm$ 0.2 kg		

	With Stand			
8	Diameter	147 mm		
9	Activation Time	3 . 10 Seconds		
10	Coverage Area	3 Cubic Meter		
11	Warning Sound	135 dB		
12	Drop Test	Passed By National Test House		
13	Storage Temperature	-1 € Á Ô Á c [ Á Ì Í Ô		
14	Product Life	5 years		
15	Manufacturing Date	Printed By Manufacturer		
16	Batch Number	Printed By Manufacturer		
17	Expiry Date	Printed By Manufacturer		
18	Material Test Certificate Of Product	By Manufacturer		
19	Warranty Certificate	2 years from the date of supply		
20	<b>Principal Of Functioning of Product:</b> It should be Portable type, fully automatic fire extinguisher, it should be available in Market, considering human reaction and environment, it should be self activated type, so once in contact with fire flames, extinguishing the fire within its range with sound alarming the surrounding area, it should work even in the absence of human thus guarding lives and property without polluting the environment.			
31.	<b>Cylinder Less Automatic Fire Detection and Suppression System</b>			
	<b>Technical Specification</b>			
1.	The fire suppression system shall be Cylinder less with clean agent gas (HFC-236fa) stored in the tube itself to form a complete and working installation to protect the specified areas. This gas shall be UL listed and manufacturer confirmation or the same from Gas manufacturer shall be provided. The self-contained tube shall be supplied along with pressure gauge for easy identification in case of leakage.			
2.	System description and operation:-The heat sensitive tubing acts as a detection device as well as extinguishing gas/ agent delivery system in case of direct system. When a fire is detected, the tube bursts at that point and forms a miniature nozzle through which extinguishing gas/ agent is sprayed and fire is suppressed. Activation temperature should be up to 120°C for engine fire in vehicles. The system should have fast response. The system should be extinguish fire at early stage and should be trigger automatically. The system should be safe against malfunction and should not need power supply for detection and extinguishing of fire.			
3.	Heat Sensing Tube: The sensing tube must be made of special modified Polyamide with 18 to 20 mm dia. The tube should be non . conductive, non- corrosive and flexible. Inner diameter of the tube: minimum 14 mm Outer diameter of the tube: minimum 19 mm Length of tube shall be 4 meter /400 cm +/-5% Quantity of gas in tube shall be 1 kg. +/-5%			
4.	The Extinguishing Agent/Gas: Fire extinguishing gas medium shall be a clean agent (HFC 236fa) & Non-ozone depleting. UL listed/Approved. Gas OEM letter to be given for the same			



5.	WARRANTY: 1 year from the date of supply.			
6.	Test Report: International Laboratory Accreditation Cooperation lab test report / letter/certificate should be state that Equipment is in conformity with the design documentation of the type to which it has been issued an expert opinion on the documentation as per manufacturers technical document			
<b>32.</b>	<b>File Compactor</b>			
	<b>Technical Specification</b>			
	<b>Height x Width x Depth</b>	2180 mm x 900 mm x 457 mm		
	Single Face Fixed (SFF) Unit	One Bay: 900 x 457 Two Bay: 1800 x 457 Three Bay: 2700 x 457 Four Bay: 3600 x 457		
	<b>Raw Materials</b>			
	<b>Steel</b>	The System Should be made from high quality steel of furniture grade as per IS 513 and IS 10748 TATA Steelium and Astrum product only are used to manufacture compactors		
	<b>Powder Coating:</b>	Powder should be used only From Reputed Manufacture like Nerolac & Asian etc.		
	<b>Colour</b>	The compactor system is typically powder coated in Metallic Silver & Metallic Black finish in Pure Polyester		
	<b>Bearing</b>	Bearing from reputed manufactures is only used with corresponding test certificate Should only be used		
	<b>Chain</b>	Diamond or Roll-on Brand chain to be used only		
	<b>Wheel</b>	Iron Die Cast with anti-rust Zinc. Loading: 1000 kg/wheel		
	<b>Guide Rail:</b>	Made of 25 mm Solid Steel with electroplate finish		
	<b>Salient Features</b>	<sup>3</sup> 25 mm pitch for easy height adjustment of Loading Level <sup>3</sup> Extra Strong boltless shelf clips <sup>3</sup> Each system should have Dust Proof arrangement to be provided front & Top of the cabinet for safety of record. (Optional) <sup>3</sup> User friendly, aesthetically appearing steering wheel <sup>3</sup> Handle has dual mode used (A pull out knob is provided in every handle to enhance uses, unlike steel handle.	<sup>3</sup>	<sup>3</sup>
	<b>Press Shop:</b>	<sup>3</sup> Quality press shop comprising of CNC controlled Sharing bending & banking Machine <sup>3</sup> Pneumatic spot welding & MIG welding Machines		
	<b>Paint Shop</b>	<sup>3</sup> Fully automatic in-house paint shop, comprising		

		3 Spray Phosphating line 3 Inline Drying oven		
Warranty		2 years from the date of supply		
<p>Diagram Attached</p> <p style="text-align: center;">MOBILE COMPACTOR</p>				

**33. GPS for Vehicle Tracking System**

<b>Technical Specification</b>			
1.	Easy to use feature rich web based Application for access from any		
2.	Historical reports and real-time alerts.		
3.	Useful MIS Reports		
4.	Complete Tracking Solution for individual Vehicle or Complete fleet		
5.	Speed Management		
6.	Minute-by-minute updates on vehicle location, usage and status.		
7.	Theft Protection / Antitheft Unit		
8.	Speed Management / Over Speed Alerts / Zoe Fence / SMS Alerts on engine ON/OFF		
9.	Mange Routes and rules for alerts		
10.	Thermal Sensor / Fuel Monitoring		
11.	Compact in size / Get vehicle engine status		
12.	Monitor vehicle current speed		
13.	Monitor fuel level without using any external Fuel Sensors.		
14.	Inbuilt Battery backup / Low Battery / Power Off Alerts		
15.	Fuel Management / Control vehicle Engine Via Mobile		
16.	SOS Panic Button / Strong Reception GSM and GPS Antennas.		
17.	Metallic Body / Audio Monitoring		
18.	Support Camera can able to transmit images from vehicle (optional)		
19.	Web Based tracking platform		
20.	Vehicle updates on Mobile by SMS		
21.	Warranty:-2 years from the date of supply		

**34. High End Video Camcorder**

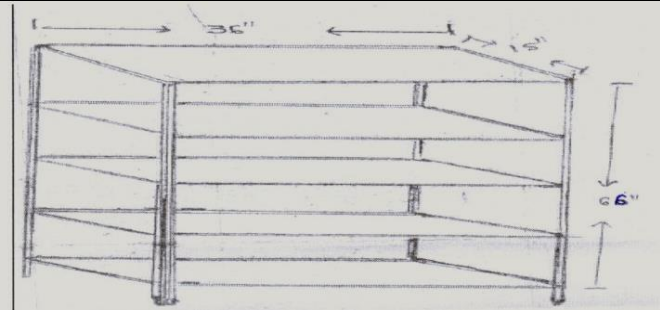
<b>Technical Specification</b>			
I. <b>SENSOR</b>			
Sensor type	13.2 mm x 8.8 mm (1.0-type) back-illuminated Exmor R CMOS sensor		
Effective pixels (video)	Approx. 14.2 M pixels (16:9)2		
Effective pixels (still image)	Approx. 14.2 M pixels (16:9)/Approx. 10.6 M pixels (4:3)		
II. <b>PROCESSOR</b>			

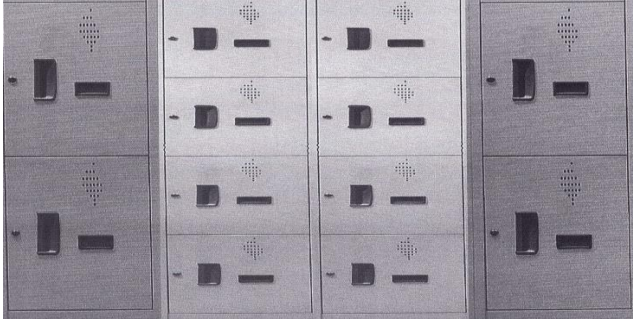
	Image processor	Ó Q U P Z Á Ý ï Á ã { æ* ^ Á ] ¡ [ &		
	Lens			
	Lens type	ZEISS Vario-Sonnar®T*		
	Filter diameter	62 mm		
	Lens cover	Lens Cap		
	Aperture	F2.8-F4.5		
	Focal distance	f= 9.3. 111.6 mm		
	Focal length (35 mm equivalent) (video)	f=29.0-348.0 mm (16:9)2		
	Focal length (35mm equivalent) (still image)	f=29.0-348.0 mm (16:9), f=35.5-426.0 mm (4:3)		
	Minimum focus distance	Approx. 1 cm (Wide), Approx. 100 cm (Tele), Approx. 0.40 (Wide), Approx. 39.38 (Tele)		
	Iris diaphragm	7 blades		
	ND filter	OFF, 1/4, 1/16, 1/64		
III.	<b>ZOOM</b>			
	Optical zoom	12x		
	Clear image zoom	4K: 18x HD: 24x3		
	Digital zoom	160x4		
IV.	<b>VIEWFINDER</b>			
	Viewfinder type	1.0 cm (0.39 type) OLED/Colour 1,440,000 dots equivalent		
	Field of view	100%		
V.	<b>LCD</b>			
	Screen type	Ì È Ì Á & { Á Ç È Í Á c ^ ] ^ D Á Y display (921K) Wide (16:9)		
	Touch panel	Yes		
	Brightness control	Yes (Menu)5		
	Marker/grid display	Grid Line6		
	Angle adjustment	Opening Angle: max. 90°, Turning Angle: max. 270°.		
VI.	<b>IMAGE STABILIZATION</b>			
	Image Stabilization Type	U ] c ã & æ   Á Û c ^ æ ã ^ Á Û @ [ c w/ Active mode (Wide to Tele)		
VII.	<b>FOCUS</b>			
	Focus type	Contrast AF		
	Focus mode	Auto/Manual (Touch Panel/Dial)		
	Focus area	Full range Focus/Spot Focus		
	Manual focus assist	Magnified display for precise manual focus (Movie Mode: x2/x4, Photo mode: x6.3/x12.6), Peaking Display		
VIII.	<b>EXPOSURE</b>			
	Minimum Illumination	4K: Standard: 6 lux (1/50 Shutter Speed) HD: Standard: 3 lux (1/50 Shutter Speed), 4K: Low Lux 3 lux (1/25 Shutter Speed) HD: Low Lux 1.7 lux (1/25 Shutter Speed), NightShot: 0 lux (1/50 Shutter Speed)		
IX.	<b>FLASH</b>			

	Flash metering system	Pre-flash TTL <sup>7</sup>		
	Flash compensation	Yes (3 steps) <sup>7</sup>		
	Flash mode	Auto/On/Off <sup>7</sup>		
<b>X.</b>	<b>STORAGE MEDIA</b>			
	Media Type	XAVC S 4K (100 Mbps): SDXC Memory Card (UHS-I U3 or Higher), XAVC S 4K(60 Mbps): SDXC Memory Card (Class 10 or Higher), XAVC S HD: SDXC Memory Card (Class 10 or Higher), CEX Ô P Ö Ê Á Û c ã     K Á T ^ { [ ; (Mark 2), Memory Stick PRO-HG Duo, Memory Stick XC-HG Duo, SD/SDHC/SDXC Memory Card (Class 4 or Higher)		
<b>XI.</b>	<b>RECORDING</b>			
	Recording format (video)	XAVC S format MPEG4-AVC/H264, AVCHD format ver. 2.0 compatible: MPEG4-AVC/H.264, MP4: MPEG-4 AVC/H.264		
	Video resolution	XAVC S 4K: 3840 x 2160/25p, 24p, XAVC S HD: 1920 x 1080/50p, 25p, 24p, AVCHD: 1920 x 1080/50p (PS), 24p (FX, FH), 50i (FX, FH), 1440 x 1080/50i (HQ, LP), MP4: 1280 x 720 25p		
	Video recording rate (ABR / VBR)	XAVC S 4K 100 Mbps: Approx. 100 Mbps/60 Mbps: Approx. 60 Mbps <sup>8</sup> , XAVC S HD Approx. 50 Mbps <sup>8</sup> , AVCHD PS: Approx. 28 Mbps/FX: Approx. 24 Mbps/FH: Approx. 17 Mbps/HQ: Approx. 9 Mbps/LP: Approx. 5 Mbps <sup>8,9</sup> , MP4: Approx.3Mbps <sup>8</sup>		
	Recording format (Still Image)	JPEG (DCF Ver. 2.0, Exif Ver. 2.3, MPF Baseline-compliant)		
	Still image size (Photo Mode)	L: 20.0 megapixels 16:9 (5968 x 3352), 15.0 megapixels 4:3 (4464 x 3352), M: 14.2 megapixels 16:9 (5024 x 2824), 10.6 megapixels 4:3 (3760 x 2824), S: 2.1 megapixels 16:9 (1920 x 1080), 0.3 megapixels 4:3 (640 x 480)		
	Still image size (Movie Mode)	L: 20.0 megapixels 16:9 (5968 x 3352) <sup>10</sup> , M:14.2 megapixels 16:9 (5024 x 2824), S: 2.1 megapixels 16:9 (1920 x 1080)		
	Still image size (Dual Record)	20.0 megapixels 16:9 (5968 x 3352) <sup>10</sup> 1112, 14.2 megapixels 16:9 (5024 x 2824) <sup>11</sup> 12, 2.1 megapixels 16:9 (1920 x 1080) <sup>11</sup> 12		
<b>XII.</b>	<b>AUDIO</b>			
	Microphone	Built-in Zoom Microphone		
	Audio Recording Format	MPEG-4 Linear PCM 2ch (48 kHz/16 bit) <sup>13</sup> , Dolby Digital 5.1ch, Dolby Digital 5.1 Creator <sup>14</sup> , Dolby Digital 2ch Stereo, Dolby Digital Stereo Creator <sup>14</sup> , MPEG-4 AAC-LC 2ch <sup>15</sup>		

	Speaker	Monoral Speaker		
XIII.	<b>PLAYBACK</b>			
	Fast playback	About 5 times/10 times/30 times/60 times		
	Slide show (still image)	Slide Show		
XIV.	<b>TERMINAL / SHOE</b>			
	Remote terminal	integrated into Multi/Micro USB Terminal21		
	Memory Card Slot	TF / SD/SDHC/SDXC compatible		
	DC IN	Yes		
XV.	<b>POWER</b>			
	BATTERY TYPE	InfoLITHIUM with AccuPower Meter System (V Series)		
	Power requirements USB charging DC 5 V 1,500 mA	6.8 V/7.3 V (battery pack), 8.4 V (AC Adaptor)		
	Charge On Camcorder	Yes (approx. 3 h 25 min)24		
	USB Charging	DC 5 V 1,500 mA		
XVI.	<b>SIZE &amp; WEIGHT</b>			
	DIMENSIONS (W X H X D) (INCLUDING SUPPLIED BATTERY)	Approx. 81 mm x 83.5 mm x 196.5 mm (Approx. 90 mm x 83.5 mm x 223.5 mm (including Lens Hood))2526, Approx. 3.25 x 3.38 x 7.25 (Approx. 3.63 x 3.38 x 8.88 (including Lens Hood))2526		
	WEIGHT (INCLUDING SUPPLIED BATTERY)	Approx. 870 g (NP-FV50A)27, Approx. 915 g (NP-FV70)/Approx. 910 g (NP-FV70A) (supplied battery)27, Approx. 965 g (NP-FV100A)27, Approx. 1 lb 14.7 oz (NP-FV50A)27, Approx. 2 lb 0.3 oz (NP-FV70)/Approx. 2 lb 0.1 oz (NP-FV70A) (supplied battery)27, Approx. 2 lb 2 oz (NP-FV100A)27		
XVII.	<b>ACCESSORIES</b>	Rechargeable Battery Pack, AC Adaptor, Power Cord, "Operating Guide", HDMI (micro) Cable, USB Connection Support Cable, Remote Commander with Battery, Lens Hood, Lens Cap		
G.	<b>WARRANTY</b>	24 months Carry in, Lamp: 36 months or 3,000 h Optional warranty extension available		
<b>35.</b>	<b>Plastic Moulded Chair with Cushion</b>			
	<b>Technical Specification</b>			
	i. The four legged moulded chair should be made up of good quality durable plastic having two arm rests at both sides. The chair should have designed to hold the weight of a health human body as well as be comfortable for the user. The seat and back cushion of moulded PU foam with velvet upholstery.			
	ii. Colour:- Black			
	iii. Height:820 mm			
	iv. Width: 560 mm			

	v. depth:490 mm		
<b>36.</b>	<b>Steel Table Office Type Size (and one cup board)</b>		
	<b>Technical Specification</b>		
1	6 legs Frame & Foot rest made out of stainless steel 16 Gauge square tube, size : 25x25x1.60 mm		
2	Table top made out of ISI marked 19 mm water proof ply wood pasted with ISI marked 0.8 mm sun mica and Four side ½ round wooden Bit		
3	Drawer Box made out of 19 mm water proof ply wood pasted with ISI { æ! \ ^ â Á € È Ì Á { { Á • ~ } Á { ã & æÁ Û ã : ^ Á K Á G G + sliding system.(Drawer Box shall be fitted with Steel Frame) with clamps with the help of screw / bolting system.		
4	Drawer Lock . 3 Locks to open with one key should be given. The lock shall be 6 levers with duplicate keys of non-corrosive materials.		
5	Drawer Handle : Each drawer shall be fitted with corrosion resistant metal handle.		
6	Knee Space width . 560 mm (min)		
7	<b>Warranty :-</b> 1 year from date of supply.		
<b>37.</b>	<b>Steel Table Office Type Size (and one cup board)</b>		
	<b>Technical Specification</b>		
1	6 legs Frame & Foot rest made out of stainless steel 16 Gauge square tube, size : 25x25x1.60 mm		
2	Table top made out of ISI marked 19 mm water proof ply wood pasted with ISI marked 0.8 mm sun mica and Four side ½ round wooden Bit		
3	Drawer Box made out of 19 mm water proof ply wood pasted with ISI { æ! \ ^ â Á € È Ì Á { { Á • ~ } Á { ã & æÁ Û ã : ^ Á K Á G G + sliding system.(Drawer Box shall be fitted with Steel Frame) with clamps with the help of screw / bolting system.		
4	Cup Board made out of 19 mm water proof ply wood pasted with ISI T æ! \ ^ â Á € È Ì Á { { Á • ~ } Á { ã & æÈ Á Û ã : ^ Á K Á G G lock. (Cup Board shall be fitted with Steel Frame).		
5	All Lock . The lock shall be 6 levers with duplicate keys of non-corrosive materials.		
6	Drawer Handle : Each drawer shall be fitted with corrosion resistant metal handle.		
7	Knee Space width . 560 mm (min)		
8	<b>Warranty:-</b> 1 year from date of supply.		
<b>38.</b>	<b>Steel Rack</b>		
	<b>Technical Specification</b>		
1	Size	<b>66" x 36" x 15" (Adj</b>	
2	Legs	With proper for adjustable bolting system	
3	Shelves	Should have 5 shelves of 1 mm C.R. Sheet with heavy duty M.S. slotted angle of size 38mmx38mmx2 mm with primer and enamel paint.	
		Û ã : ^ Á [ ~ Á æ     Á c @ ^ Á • @ ^ F Í + Á ø Á F + Á Ç Ó ^ } á ã } * Á ]	
		Support bar angles should be slotted.	
		Entire body should have double coated olive green (OG) colour	

		Stiffeners should be provided in all shelves.		
		Angle support should be provided in all shelves.		
		be provided in all four legs.		
4	<b>Warranty</b>	1 year from date of supply.		
	 <p>Diagram attached (Adjustable)</p>			
<b>39. Multi Compartment Safe Locker</b>				
<b>Technical Specification</b>				
1	Material	Mild Steel structure with powder coating. (CRCA 0.9 mm or higher)		
2	Ventilation	Only front door of multi compartment locker unit should be aesthetically perforated to allow ventilation.		
3	Door	Each compartment should have independent hinged door with locker.		
4	Label holder for each compartment	Provision should be made accordingly of		
5	Handles	Each door compartment should have handles of polycarbonate or any other suitable materials.		
6	Locking	10 lever cam lock with lock lever facility for each compartment		
7	Cloth Hanging	Each compartment should have stainless steel rod facility for hanging of clothes using hangers.		
8	Brand	It should be of reputed branded company having service centres in Odisha.		
<b>Special features and size of multi compartment locker units</b>				
<p>The multi compartment locker unit should have 4 vertical units of equal size which can be placed side by side joined together by clamps arrangements and each one of these 4 units can function independently will have dimensions as noted below. Out of the above 4 units, two units (per compartment) and other two units should have 4 compartments of</p> <p>should be <math>\pm 5</math> mm. Total compartment unit wise :          1<sup>st</sup> unit . 2, 2<sup>nd</sup> unit . 2, 3<sup>rd</sup> unit . 4, 4<sup>th</sup> unit . 4 : Total compartments = 12          Dimension of each of the 4 units as follows :-</p>				
a)	Height	1500 mm		
b)	Width	1500 mm		
c)	Depth	500 mm		

d)	Weight	Approx. 30 Kg per each vertical unit having 2 compartments. Gross weight . 110 to 120 Kg		
e)	Colour	Siemens Grey Colour (powder coated)		
9	<b>Extra stand</b>	<b>Extra stand of hard rubber under the locker Base plate shall be provided.</b>		
10	<b>Warranty</b>	2 years from date of supply		
	Diagram attached.			
				
<b>40.</b>	<b>Tubular Folding Steel Bed Cots</b>			
	<b>Technical Specification</b>			
1	General Drawing (N.T.S)	<b>Size</b> K Á S ^ } - f e @ Ç F d İ İ Á { { D Ç J F Í Á { { D Á ç Á P ^ ã * @5% (inside to inside)		
2	Specification of Tube	M.S. Tube of 41 mm O/D, Thickness 1.6 mm (.5%)		
3	Main Tubes	41 mm O/D MS Tube of suitable length.		
4	Cross Tube	25 mm O/D x 1.00 mm thick M.S. tube of suitable length.		
5	Stiffeners	5 nos. of stiffeners of 25 mm O/D x 1 mm thick M.S. pipe.		
6	Folding Clamp	4 Nos. of folding clamp of (3 mm thick) with one No. GI Bolt (M12) on each leg.		
7		Frame and legs of cot shall be bolted with folding clamp in order to carry the cot easily.		
8	Bed Top	The Bed top shall be 19 mm thick water resistant plywood with properly bolted to bed stiffeners. The cot top shall be 19 mm thick (.5%) water resistant plywood of ISO 9000:2000 certified company with ISI mark. The top shall be bolted with 9 Nos. of counter shank bolts with lock nuts. The top of cot shall be painted with 1 coat wood primer and 2 coats enamel paints.		
9	Mosquito Curtain Stand	Four Nos. of sockets of size 25x1.0mm MS Pipe of 125 mm length shall be provided on four corner, two on the front end and two on the back end (not on sides) of the cot frame to hold the mosquito stand having size of 19 x 1 mm MS Pipe O/D of 1000 mm long each.		
10		The frame of cot shall be painted with 2 coats of enamel paint of olive green colour over one coat of Zinc chromate		



		red oxide primer.		
11	<b>Warranty</b>	1 year from date of supply.		
<b>41.</b>	<b>Portable Inflatable Emergency Lighting System</b>			
	<b>Technical Specification</b>			
1	Base Frame	It shall consist of MS tube frame and a base plate of aluminum sheet of 3mm +10%/-5% thickness to support generating set and control gear box and shall be provided with anti vibration rubber pads. M.S. Parts shall be powder coated.		
2	Top Cover	Made of moulded fibre glass or suitable material designed to fasten the tower balloon by suitable steel strip so that there is no air leakage at the joint. It shall provide suitable nipple for filling air into the balloon and provide support for it to remain erect at wind speed of 45 km/hr.		
3	Generator Set	Recoil start portable AC Generating set comprising AC Generator rated as 1200VA 240V 1 phase of unit power factor conforming to IS:13364 (Part I/92 and petrol run air cooled four stroke single cylinder engine with resettable circuit breaker in the AC output. Fuel tank capacity should be for continuous running of generating set for 8 hours. A fuel level indicator should be on display panel		
4		System should work on 220/240V 50 Hz AC supply and for connecting to the mains shall have provision for 15 Amp 3-pin socket and a suitable lead wire with plugs at both ends.		
5		Two nos. of compressors/air blowers of suitable rating to be provided to inflate the balloon in 60 sec maximum.		
6	Balloon:	It shall be cylindrical shaped made of suitable polyester based cloth to ensure emission of light with minimum loss and shall be waterproof and strengthened with flexible stiffeners to sustain inside air pressure and to remain erected against outside wind speed of 45km/hr.		
7		One 400W High Pressure Metal Halide (HPMH) lamp to give 42000 lumens shall be mounted inside the balloon at the top end such that it goes up/down while inflating and deflation. Balloon height in inflated condition shall be 4.5 to 5m from base plate. The length of nylon rope required for the stays should be 5 meter and of 6 mm dia.		
8		Control Gear shall be suitable designed and fitted with MCB, lamp ballast, ignitor,		

		capacitors, changeover and on/off switches with indicating lamps for controlling 1 No.400 W HPMH lamp and two air blowers.		
9	Performance Requirements:	<p><b>a)</b> A minimum lux value of 1 shall be achieved on ground at 55m radius within 5 minutes of starting.</p> <p><b>b)</b> Deflation time including repacking shall be 5 minutes max.</p> <p><b>c)</b> The inflated tower only shall be rain proof and shall conform to IP X3 to IS:10322 (Part 1)/82.</p> <p><b>d)</b> The system shall be continuously run for 8 hours, without damaging/adversely affecting the balloon fabric and other components.</p>		
10	Overall Dimensions:	Total weight of complete system: 50 kg. Max.(excluding storage box) Overall dimensions in deflated condition (nominal): <b>600 x 450 x 500mm.</b>		
11	Accessories:	<p>One set of following accessories /spares to be part of supply with the main equipment.</p> <p><b>a)</b> Storage box: Suitably designed to accommodate the tower and other spare &amp; easy to handle with proper locking arrangements.</p> <p><b>b)</b> Rain protection cover: For generating set and control gear box made of waterproof cloth with air vent arrangements.</p> <p><b>c)</b> Wind Support: 5 meter nylon stay wire ropes of dia 6 mm (3 Nos.) which can be tied to the tower (balloon) and grouting hooks in case of extra wind velocity.</p> <p><b>d)</b> Tool Kit: Necessary tools required for operation of the emergency light system viz screw driver, plug spanner and T-nut driver, 3 nos. puncture Tape of the size 10 cm x 10 cm etc.</p> <p><b>e)</b> Lamp with requisite control gear.</p> <p><b>f)</b> One blower.</p>		
12	<b>Warranty</b>	2 years from the date of supply		
<b>42.</b>	<b>CCTV Surveillance System</b>			
	<b>Technical Specification</b>			
<b>a)</b>	<b><u>CAMERA (4 nos.)</u></b>			
	<b>Feature</b>	<b>Specification</b>		
1.	Image Sensor	F ð H + Á I T Ú Á Ú ! [ *   ^ • • ã ç higher		
2.	Shutter Speed	Auto/Manual, 1/3(4)~1/10000s		
3.	White Balance	Auto/Manual		
4.	Gain Control(AGC)	Auto/Manual		
5.	Lens	2.7-12mm Motorized Lens		
6.	Video Compression	H.264/MJPEG		

7.	Back Light Compensation	BLC/HLC/DWDR		
8.	S/N Ratio	More than 50dB		
9.	Privacy Mask	Up to 4 areas		
10.	ICR	Auto(ICR)/Color/B/W		
11.	Protocol	IPv4/IPv6,HTTP,HTTPS,SSL,TCP/IP,UDP,UPnP,ICMP,IGMP,SNMP,RTSP,RTP,SMTP,NTP.DHCP,DNS,PPPOE,DDNS,FTP,IP Filter,QoS,Bonjour,ONVIF,PSIA,CGI		
12.	Video Streaming	Main Stream: 3M(1~20fps)/1080P(1~25/30fps),Extra Stream: D1/CIF(1~25/30fps)		
13.	Resolution	3M(2304x1296)/1080P(1920x1080)/1.3M(1280x960)/720P(1280x720)/D1(704x576/704x480)/CIF(352x288/352x240)		
14.	Ethernet	RJ-45 (10/100Base-T)		
15.	User Account	20 Users		
16.	Smart Phone	iPhone,iPad,Android,Windows Phone		
17.	IR	IR Range of 30 Mtr. or higher		
18.	Minimum Illumination	0.01 Lux/F1.4(Color),0 Lux/F1.4 (IR on)		
19.	Micro SD	Micro SD,Max 128GB		
20.	Operating Temperature	-H € Ô Á d Ê Î € Ô Á Ê Á Š ^ • • Á		
21.	Power Source	DC12V,PoE(802.3af)		
22.	Power Consumption	<8.5W		
23.	Weatherproof Standard	IP67		
24.	should be of reputed brand having CE / FCC / UL / IEC or IS certification			
<b>b)</b>	<b>NVR (1 no.)</b>	<b>NETWORK VIDEO RECORDER</b>		
	<b>FEATURE</b>	<b>SPECIFICATION</b>		
1.	Processor	Dual-core embedded processor		
2.	Operating system	Embedded LINUX		
3.	IP camera input	8 Channel		
4.	User interface	GUI		
5.	Video Output	1 HDMI, 1 VGA		
6.	Compression	H.264/MJPEG Plus or higher		
7.	Video Resolution	2560X1920, 2048X1536, 1920X1080, 1280X1024, 1280X720, 1024X768		
8.	Video Recording	Max 128 Mbps		
9.	Video Display Split	1/4/8		
10.	Motion Detection	MD Zones:396(22X18).		
11.	Video Loss	Supports		
12.	Camera Blank	Supports		
13.	Alarm Input	4 channel		
14.	Alarm Output	2 channel		
15.	Hard Disk	2 SATA ports with present 4 TB storage capacity which can be increased in future		

		as per requirement		
16.	Smart Phone	iPhone, iPad, Android, Windows Phone		
17.	Trigger Events	Recording, PTZ,Tour,Alarm,VideoPush,Email,FTP,S pot, Buzzer & Screen		
18.	Recording Mode	Manual,Schedule(Regular(Cotinuuous),M D,Alarm),stop		
19.	Search Mode	Time/Date, Alarm, MD & Exact Search(Accurate To Second), Smart Search		
20.	Playback	Paly, Pause, Stop, Rewind, Fast Play, Slow Paly, Next File, Previous File, Next Camera, Previous Camera, Full Screen, Repeat, Shuffle, Backup Selection,Digital Zoom		
21.	Backup Mode	USB Device/Internal Sata Burner/Network		
22.	Interface Port	1 HDMI, 1 VGA, 2 USB 2.0, 1 RS485, 1 RS232, 1 RJ45		
23.	Record Interval	F Á Á Á F G € Á { ã } Ç á 4 ^ Æ [    F Á Á H € Á Û ^ & Ê ÁÚ [ •Ác^ & [   á K Á F € Á Á H		
24.	Max User Account	128 users		
25.	Ethernet	1 RJ-45 PORT(10/100M/1000M)		
26.	Protocols	HTTP, TCP/IP, IPv4/IPv6/UPNP, RTSP,UDP,SMTP,NTP,DHCP,DNS, IP Filter, PPPOE, DDNS, FTP, Alarm Server, ONVIF Version 2.3		
27.	Power Supply	DC 12V/4A		
28.	Power Consumption	20W (without HDD)		
29.	Working Temp	-10 ~+55degree Centigrade/10- 90%RH/86-106kpa		
30.	should be of reputed brand having CE, FCC, UL, IEC or IS certification			
c)	<b>MONITOR (1 no.)</b>	G Ĩ + Á [   Á @ã * @^   Á • ã : ^ Á branded company, CE certified with HDMI Port of reputed make		
d)	<b>LAN Switch (1 no.)</b>	L2 Unmanaged Switch,8 Port,Giga byte,10/100/1000 Mbps. Make: CISCO, HP, ZYXEL, D-Link,NETGEAR		
e)	<b>Wiring and Installation</b>	All the Cameras should be installed at desired location and wiring completed in all respect for installation of the system in a Office Complex of approx 2000 sq. ft.		
f)	Service facilitates either from OEM or authorised service provider in Odisha.			
g)	The e-mail ID of the person who is giving authorisation should be mentioned which may be verified, if required.			

<b>h)</b>	Copy signed broacher of the product quoted should be provided along with tender documents and details of the product quoted should be mentioned in the Company website.			
<b>i)</b>	<b>Warranty</b>	<b>3 years from date of installation.</b>		
<b>43.</b>	<b>Water Mist &amp; CAF Fire Fighting System (Backpack Type- minimum 9 Ltrs., Capacity)</b>			
	<b>Technical Specification</b>			
i)	The system shall have water cylinder, compressed air cylinder and gun mounted on a backpack.			
ii)	The system should operate on Low Pressure & Dual Phase technology.			
iii)	The system should be tested as per EN3-7: 2004+A1:2007			
iv)	The supply shall include along with the system, 10 nos O-rings for the pressure vessel, one can of 5 liter			
v)	AFFF confirming to UL 162, one extra Air Cylinder of 4.7 Liters/ 300 bar, a tool kit, manufacturers test certificate.			
vi)	Operation manual and spare parts list.			
vii)	The principle features of the system in the design shall be as under:			
1	Technology	Water Mist & CAFS		
2	Capacity (size)	Minimum 9 Liters		
3	Working Pressure	05 Bar to 15 Bar		
4	Water Cylinder Capacity	9 Liters (Minimum)		
5	Water Cylinder- construction	Non-corrosive Stainless Steel.		
6	Water Cylinder- Working Pressure	05 to 15 bars		
7	Water Cylinder- Testing pressure	Not less than 1.5 times the working pressure.		
8	Water Cylinder external paint	The cylinder should be of only in red colour with powder coating confirming to appropriate standard.		
9	Safety valve opening pressure	1.5 Times working pressure		
10	Back pack harness	1. The harness system shall be made out of synthetic fire resistant material confirming to IS 15758 (Part4) and shall provide minimum stress and fatigue to the wearer. 2. The system shall be designed ergonomically. 3. Shall provide maximum maneuverability to the wearer. 4. The back plate shall be constructed from a strong, carbon composite material. 5. Shall be rigid, anti-static and highly resistant to impact chemicals, flames and high temperatures.		
11	Air Bottle Capacity	4.7 Liters/ 300 bar		
12	Air Bottle- construction	Carbon composite, light weight cylinders		
13	Air Bottle- Working Pressure	300 bars		
14	Air Bottle- Bursting pressure	900 bars		
15	Testing pressure	450 bars		
16	Air Bottle- markings	1. Chief Controller of Explosives/ model		

		number/ serial number/ year of manufacture/ Chief Controller of Explosives approved valve with built in pressure gauge. 2. The serial number on the cylinder shall match with the certificate.		
17	Air Bottle-Universal cylinder holder	Shall hold 2 liters to 6 liters capacity cylinders.		
18	Air Bottle- valve and pressure gauge	EN (European Standards) approved valve and pressure gauge, respectively.		
19	Air Bottle- Operation	Shall be able to operate easily while hand held as well as when used as back pack		
20	Air Bottle- Propellant	Compressed normal air		
21	Air Bottle- certification	1. PESO (Petroleum and explosive safety organization) 2. Chief Controller of Explosives-Nagpur.		
22	Portability	Hand Held & Back Pack		
23	Total weight filled	Not more than 27 Kg (Water Bottle filled & Air bottle 4.7 liters/ 300 bar air filled)		
24	Operating/ working pressure	5 to 15 Bars		
25	Operating- temperature	Minimum +5 degree to maximum +60 degree Celsius		
26	Gun- construction	1. Non corrosive SS metal (dual phase) with external plastic covering, smooth bore, atomizer chamber and mixing chamber. 2. The rating of the high pressure flexible tube shall be minimum 3 times the working pressure.		
27	Gun- weight without hose	Should be 1 to 2 Kg. $\pm$ 5%		
28	Gun- Holder	Hard plastic, for easy handling of gun.		
29	Gun-Belt	Heat retardant (tolerating up to 150 degree Celsius) and acid resistant, synthetic fiber belt, Long enough to adjust depending upon the operator.		
30	Nozzle Modes	Jet & Spray		
31	Lancing Distance	12 to 15 Meters (Jet mode) 6 to 7 Meters (Spray mode)		
32	Maximum Discharge duration- Continuous and at full throttle	22 to 25 Seconds		
33	Consumption of extinguishing agent	0.4 to 0.5 liters per second		
34	Turn over from- jet to Spray (preferred)	Shall not be more than 2 second with a provision of changeover from Jet to spray mode and vice versa by simple twist of nozzle without disrupting water mist discharge.		
35	Water Bottle- Pressure release mechanism to decompress the water bottle	Pressure release mechanism to decompress the water bottle shall be provided for fast refilling		
36	Device operation	Shall be suitable for both left and right hand operations.		

37	Fire extinction- suitability with standard AFFF 6% confirming to IS 4989 or UL 162 or EN 1568-3-2008 standards	Class-A Class-B Live Electrical fires-1000 V as per EN 3-7/IS- 15683 (Tested for 35 KVA)		
38	System Test: Electrical Test Certificate- With details of test methods	Certification from ERDA as per IS 15683		
39	Product Certificates:	Certification from NABL accredited Lab (tested in Indian condition) as per EN3-7:2004+A1:2007. Test report shall be enclosed along with the offer.		
40	Fire Rating Certificates with standard AFFF Compound confirming to UL-162: For Class A & B	27A, 233 B		
41	Type of Foam	Standard foam as per UL-162 or IS:4989 standards		
42	Tool Kit	1. Allen key/ flat or star screw driver. 2. Monkey spanner (if necessary for specific set). 3. Measuring mug- 5 liters 4. Funnel- medium size		
43	Documents	1. User manual, 2. Spare parts list, 3. Certificates		
44	Spare parts Support	Minimum 10 years		
45	Warranty	1 year from date of supply/ installation and AMC for 2 <sup>nd</sup> , 3 <sup>rd</sup> & 4 <sup>th</sup> year.		
	Qualification Norms			
1	The bidder should be OEM or its authorized distributor.			
2	The authorized distributor has to submit a copy of the MOU with the OEM			
3	There has to be an after sales support agreement also in the MOU			
4	The after sales support commitment from the OEM to the distributor and to the customers of the distributor has to be for a min. of 10 years.			
5	Brand of the equipment should be clearly specified in the bid.			
6	Since it is a safety & a life saving equipment therefore to substantiate the past performance of the product the bidder must have completed the supply of equivalent or more no. of the same equipment & model to Central Government/ State Government Organizations/ PSUs during the period of last 12 months from the date of publishing of the Notice Inviting Tender.			
7	The customer reserves the right to visit the manufacturing facility in India of the bidders to gauge the quality of production & inspect the product before finalizing the order.			
<b>44.</b>	<b>Rechargeable LED Search Light high Power</b>			
	<b>Technical Specification</b>			
<b>1.</b>	<b>Product Feature</b>			
(a)	5 modes of brightness selectable (High, Medium, Low, SOS & Flash)			
(b)	The search light should be equipped with specially designed handle which can be used in two position.			
<b>2.</b>	<b>Equipped with Lithium ION battery</b>			


(i)	The search light should come with adjustable stand in addition to handle.			
(ii)	01 No. CREE 10 Watt High Power LED.			
(iii)	Product Dimensions minimum (mm)	224 (L) x 165 (W) x 172 (H)		
(iv)	Power Source	Lithium ION battery total capacity minimum 5800 mAh pack		
(v)	Dual recharge, either AC/DC charger of 12V DC car adaptor			
(vi)	3 LED Functions Indicator			
(vii)	<b>Indications :</b>			
(a)	Low battery	Yellow Flashing		
(b)	Charging Status	Red Light		
(c)	Full battery	Green light		
(viii)	<b>Runtime</b>			
(a)	High Power Spotlight	Min 160 minutes		
(b)	Middle Power Spotlight	Min 4 hours		
(c)	Low Power Spotlight	Min 9 hours		
(d)	SOS signal Blinker	Min 5 hours		
(e)	Strobe / flash blinder	Min 5 hours		
(ix)	<b>Beam Distance</b>			
(a)	High Power Spotlight	Min 460 meters		
(b)	Middle Power Spotlight	Around 320 meters		
(c)	Lower Power Spotlight	Around 160 meters		
(x)	<b>Front Opening Size</b>			
(a)	Min . Internal dia	117 mm approx		
(b)	Min . External dia	123 mm approx		
(xi)	<b>Operating Temperature</b>			
		-5 <sup>0</sup> to + 55 <sup>0</sup> C		
(xii)	<b>Total Weight</b>			
		Should be less than 1 Kg		
(xiii)	<b>Suitable Shoulder Strap with connector</b>			
(xiv)	<b>Warranty</b>			
		1 year from date of supply.		
	<b>Test report from NABL Accredited Laboratory to be provided along with Bid.</b>			
<b>45.</b>	<b>Mobile Portable FRF model four unit Toilet (Trailer mounted Mobile Toilet for 04 seater)</b>			
	<b>Technical Specifications</b>			
1	Size of Mobile Toilet Trailer	1.89/2.74m x 2.65 m x 3.15 m height from ground level with cubical (Toilet) size .830 mm x .890 mm approx., path way 457 mm approx. wide (on both sides) covered with aluminum chequered sheet with railing (height 762 mm) approx. made out of MS Pipe.		
2	Chassis	The chassis made from HDMS 100 mm x 50 mm x ISMC with necessary cross members 75 x40xISMC, T/Angle 40 x 40 5 mm, 25 x 3 mm.		
3	Cabin Structure	Shall be fabricated by using MS Angle 40 mm x 40 mm x 4 mm and MS Tee 40x40x5 mm.		
4	Cabin Panel	Shall be covered with Fibroplast panels approx. 8 to 10 mm with the provision of		



		side railing / handle made out of stainless steel in right side of Toilet pan.		
5	Door Shutters	Door shutters for each cabin shall be of MS Angle 25x25x3mm covered with fibroplast panels. The door fixed with handle grips, tower bolts and suitable locking arrangements & insure that the Door should not be locked from outside while the person in inside the Toilet.		
6	Roof Structure	Shall be fabricated by using MS Angle 40x40x4 mm and 32x32x3 mm having round slope and projection and covered with transparent fiberglass sheet.		
7	Platform	Shall be fabricated by using MS Angle 40x40x6 mm and MS Flat 25x3 mm. Side railing shall be provided using MS Box pipe.		
8	Flooring and squatting Pan	Floor panel should be of FRP, squatting pan, footrest and skirting should be made of unbreakable FRP Moulded (Ceramic Finish) integrated with floor.		
9	Mirror	Fiberglass framing type two mirrors mounted on Washbasin.		
10	Wash basin	Washbasin shall be made from stainless steel. The washbasin fitted with water tank separate for Ladies and Gents.		
11	Sludge/ Night Soil Tank	The tank capacity 350/400 Ltr. approx. of size 1066 x 914 x 304 mm approx. & made from FRP Sheet Joint less with anticorrosive Treatment. The Tank shall be connected with minimum 50 mm gas discharge pipe. The tank shall be fitted between two-rear side tyres or as suitable place.		
12	Clean Water Tank	The inbuilt type water tank shall be made from PVC sheet 500 Ltrs. Capacity with water taps and necessary pipe (12 mm) line in every toilet Cubicle, tank filling point extend to rear side top should also have connection to Sludge Tank (with valve) facility to cleat the Sludge tank. One separate water opening with tapfor cleaning purpose shall be provided		
13	Electric Point	Electric point in all Toilets and Junction Box fitted outside of toilet for input cable and control with provision of one exhaust fan of 12 inch of reputed brand.		
14	Emptying System	80 mm Ball / Butterfly valve with hosepipe of 4 mtr. length shall be provided for emptying the tank.		
15	Toeing arrangement	Shall be fabricated with using MS channel, Thrust bearing, bearing holder and Toeing hook with spring etc.		

16	Suspension	Consisting of Two nos. of MS Axels (4 Wheels) with taper roller bearing hub, and New Tyre, Tube, rim & Tyre Size 6.00 x16.		
17	Paint	The entire equipment shall be painted as per prescribed paint scheme with anti-corrosive red and one coat enamel paint of finish surface with Asian after inspection and internal rubberized paint.		
18	<b>Warranty</b>	2 years from date of supply.		
	<p>NB:- i) Inspection of the fabrication work will be carried out in three stages or more by the Inspection Committee, for which necessary Inspection expenses for inspection tem shall be borne by the fabricator other than the fabricator of twin cities i.e. Cuttack / Bhubaneswar.</p> <p>ii) Fibroplast Panels / Fiberglass sheets may be read as FRP Panels / Sheets. The thickness of the Roofing Sheet should be minimum 2 mm thick, level indicator should be provided at Sludge Tank, Water Tank.</p> <p>iii) Complete drawing showing sizes / Materials details should be submitted.</p>			
<b>46.</b>	<b>Mobile Portable FRF model Six unit Toilet (Trailer mounted Mobile Toilet for 06 seater)</b>			
	<b>Technical Specifications</b>			
1	Size of Mobile Toilet Trailer	2.80/3.60m x 2.65 m x 3.15 m height from ground level with cubical (Toilet) size .830 mm x .890 mm approx., path way 457 mm approx. wide (on both sides) covered with aluminum chequered sheet with railing (height 762 mm) approx. made out of MS Pipe.		
2	Chassis	The chassis made from HDMS 100 mm x 50 mm x ISMC with necessary cross members 75 x40xISM, T/Angle 40 x 40 5 mm, 25 x 3 mm.		
3	Cabin Structure	Shall be fabricated by using MS Angle 40 mm x 40 mm x 4 mm and MS Tee 40x40x5 mm.		
4	Cabin Panel	Shall be covered with Fibroplast panels approx. 8 to 10 mm with the provision of side railing / handle made out of stainless steel in right side of Toilet pan.		
5	Door Shutters	Door shutters for each cabin shall be of MS Angle 25x25x3mm covered with fibroplast panels. The door fixed with handle grips, tower bolts and suitable locking arrangements& insure that the Door should not be locked from outside while the person in inside the Toilet.		
6	Roof Structure	Shall be fabricated by using MS Angle 40x40x4 mm and 32x32x3 mm having round slope and projection and covered with transparent fiberglass sheet.		
7	Platform	Shall be fabricated by using MS Angle 40x40x5 mm and MS Flat 25x3 mm. Side		

		railing shall be provided using MS Box pipe.		
8	Flooring and squatting Pan	Floor panel should be of FRP, squatting pan, footrest and skirting should be made of unbreakable FRP Moulded (Ceramic Finish integrated with floor.		
9	Mirror	Fiberglass framing type two mirrors mounted on Washbasin.		
10	Wash basin	Washbasin shall be made from stainless steel. The washbasin fitted with water tank separate for Ladies and Gents.		
11	Sludge/ Night Soil Tank	The tank capacity 500/700 Ltr. approx. of size 1828 x 914 x 304 mm approx.& made from FRP Sheet Joint less with anticorrosive Treatment. The Tank shall be connected with minimum 50 mm gas discharge pipe. The tank shall be fitted between two-rear side tyres or as suitable place.		
12	Clean Water Tank	The inbuilt type water tank shall be made from PVC sheet 500 Ltrs. Capacity with water taps and necessary pipe (12 mm) line in every toilet Cubicle, tank filling point extend to rear side top should also have connection to Sludge Tank (with valve) facility to cleat the Sludge tank. One separate water opening with tapfor cleaning purpose shall be provided		
13	Electric Point	Electric point in all Toilets and Junction Box fitted outside of toilet for input cable and control with provision of one exhaust fan of 12 inch of reputed brand.		
14	Emptying System	80 mm Ball / Butterfly valve with hosepipe of 4 mtr. length shall be provided for emptying the tank.		
15	Toeing arrangement	Shall be fabricated with using MS channel, Thrust bearing, bearing holder and Toeing hook with spring etc.		
16	Suspension	Consisting of Two nos. of MS Axels (4 Wheels) with taper roller bearing hub, and New Tyre, Tube, rim & Tyre Size 6.00 x16.		
17	Paint	The entire equipment shall be painted as per prescribed paint scheme with anti-corrosive red and one coat enamel paint of finish surface with Asian after inspection and internal rubberized paint.		
18	<b>Warranty</b>	2 years from date of supply.		
	Photo Attached.			

			
	<p>NB:- i) Inspection of the fabrication work will be carried out in three stages or more by the Inspection Committee, for which necessary Inspection expenses for inspection tem shall be borne by the fabricator other than the fabricator of twin cities i.e. Cuttack / Bhubaneswar.</p> <p>ii) Fibroplast Panels / Fiberglass sheets may be read as FRP Panels / Sheets. The thickness of the Roofing Sheet should be minimum 2 mm thick, level indicator should be provided at Sludge Tank, Water Tank.</p> <p>iii) Complete drawing showing sizes / Materials details should be submitted.</p>		
47.	<b>Mobile Water Cannon</b>		
	<b>Technical Specification</b>		
A.	<b>VEHICLE PLATFORM</b>		
1	Engine	5883 cc, 181 HP @ 2500 RPM or better, 6 cylinder	
		Torque: 675 Hm @ 1400-1600 RPM or better	
		Type: Water cooled, Direct Injection, Turbo Charged, Diesel Engine	
		Emission Norms-BS-IV	
2	Clutch	380 MM push type, single Disc, Dry Friction type, Booster assisted	
3	Gear Box	6 forward and one reverse gear.	
4	Steering	Power Steering	
5	Tyres	10 R 20-16 PR (Front-2, Rear-8, Spare-1)	
6	Fuel tank	350 Ltrs or more	
7	Dimension	Overall width-2440mm	
		Wheel base : 4880 mm, front overhang - 1260mm	
		Overall Length : 9010 mm, Turning circle diameter- 20500mm	
		Weight: GVW 25000 Kg. Type of Body-Cowl Chassis	
B.	<b>WATER CANNON</b>		
1.	Material, Design, Fabrication, Workmanship and finish accessories and equipment in complete of Water Canon for riot control for use by the police, to be fabricated on 25 Ton GVW cowl chassis. The Water canon should be fabricated with the best material & good workmanship.		
2.	<p><b>GENERAL REQUIREMENTS</b></p> <p>Water Cannon Vehicle shall have water tank of carrying 12000 litre of water. A centrifugal pump capable of delivering 3200 lpm of water at 8.5 kg/cm<sup>2</sup> and 2400 Lpm at 10.5 kg/cm<sup>2</sup> shall be provided and coupled to a power-pack separate engine.</p>		

	The height of the vehicle shall be in accordance with the norms laid down by the State Transport Department for such vehicles.		
3.	<b><u>MATERIAL SELECTION AND TREATMENT :-</u></b>		
3.1	The choice of material to be used in the construction of the appliance shall be made with a view to impart strength and durability. Timber shall not be used in the body construction.		
3.2	All parts which form water ways shall be of corrosion resisting material or suitably treated to prevent corrosion. All water pipe lines shall be hot dipped galvanized. The water tank shall be painted internally with Epoxy paint after shot/sand blasting and all metal parts exposed to atmosphere shall either be of corrosion resisting material or treated suitably to resist corrosion.		
4	<b><u>DESIGN AND CONSTRUCTION:-</u></b>		
4.1	The water tank mounted on the chassis shall be capable of carrying 12000 litres of water. It shall be of welded construction and fabricated out of <b>Stainless Steel</b> sheets. The thickness of the sheet shall not be less than 5.00 mm MS plate for all sizes, top and baffles and 6.00 mm MS Plate at the bottom. The tank shall be suitably baffled in both the directions to prevent surge when the vehicle is accelerating, cornering or braking. The baffles shall be of 5 mm MS Plate welded type with bolted panels provided with the openings in the baffles. The tank shall be designed to keep the centre of gravity of the vehicle as low as possible. The mounting shall permit full rated contents of the tank to flow into the pump. The water tank with all its fitments shall withstand hydraulic pressure of 0.3 kg/cm <sup>2</sup> . The water tank should be semi-elliptical.		
4.1.1	Suitable lifting system shall be provided on the shelf of the tank to enable the tank to be lifted off the vehicles for repairs/replacement as necessary.		
4.1.2	The tank shall be fitted with the filling orifice, a drain cock and two bolted man holes of 450 mm dia on the top of the tank. A 300 mm dia filling orifice shall be provided on top of one of the man hole cover at the rear. The drain cock shall not be less than 75 mm dia water way through-out. The drain pipe shall be taken down to a point well below the chassis without reducing the effective ground clearance, when fully loaded and shall discharge away from the wheels.		
4.1.3	An overflow pipe of not less than 100 mm internal dia shall be fitted to the tank. The overflow pipe shall be taken down to appoint well below the chassis without reducing effective ground clearance when fully loaded and shall discharge away from the wheels. The pipe shall be so designed and located to ensure that water will overflow through the pipe only while refilling the tank but no water shall overflow through this pipe when the appliance is in motion, is standing on an uneven ground or brakes are applied to the moving vehicles.		
4.1.4	Two filling pipes (hydrant connections) each with an internal dia of not less than 70 mm shall be fitted to the tank. Each of these shall be fitted with 63 mm instantaneous male couplings incorporating a strainer. Fool proof arrangements shall be made to prevent pressure of Water Tank while refilling through these hydrant connections. Suitable arrangements should be provided to ensure the Water from the tank does not leak through the filling pipe.		
4.1.5	A tube type water level indicator for the water tank shall be provided and calibrated ¼, 1/2, 3/4 and full.		
4.1.6	Suitable arrangement shall be provided for self filling of water tank directly from the pump using a 75 mm dia pipe line.		

4.1.7	The plumbing between the water tank and pump shall have a clear and unobstructed water way of not less than 100 mm throughout. The draw off shall be protected by a brass wire screen filter and shall be fitted with antivortex device.				
4.1.8	All plumbing shall be reasonably accessible for maintenance purpose. Drain cocks shall be provided where necessary and control for these all shall be readily accessible and so arranged as to prevent the cocks from being opened by vibrations. The direction in which the valves/cocks open/close shall be clearly marked near each valve/cock.				
4.1.9	<p><b><u>PAINT:-</u></b>  <b><u>IRRITANT AND INDELIBLE INK TANKS :</u></b>  Two stainless steel tanks each of 250 ltr. Capacities shall be suitably mounted on both side of the rear of the chassis. The tanks shall be separate and distinct units, which can be removed separately for replacement. The tanks should be fabricated out of minimum 2 mm thick stainless steel sheets of welded construction reinforced suitably. It shall withstand a hydraulic pressure of 0.3 kg/Cm<sup>2</sup>.</p>				
4.1.10	<p><b><u>PROPORTIONATOR</u></b>  Around the pump inductor should be fitted between the suction and the delivery of the pump that will induct irritant or indelible ink as required into the water stream with no loss in delivery pressure from the pump. The proportionator shall comprise of an inductor and one selector valve calibrated to ensure correct intake of irritant /indelible ink.</p>				
4.2	<b><u>PUMP :-</u></b>				
4.2.1	A single/Two stages Centrifugal pump coupled with power take off installed mid-ship shall be connected to a separate diesel engine of reputed company for driving the pump. The pump-engine assembly shall be mounted on a sub frame and fitted on the chassis in a locker just behind the pump shaft shall be of stainless steel supported by anti friction bearing external of the casing. The gland shall preferably be of self adjusting type. The impeller neck rings in the pump casing shall be renewable and manufactured from high quality bronze. The impeller must be hydraulically balanced to reduce end thrust. A drain plug shall be provided at the bottom of the casing.				
4.2.2	The drive to the pump shall be affected by a separate engine, independent from the vehicle engine.				
4.2.3	The pump shall be capable of giving its rated output 3200 lpm at 8.5 kg/cm <sup>2</sup> . The pump shall also be capable of giving the performance given in the table below when working with all internal and external strainer (except basket strainer) at sea level and up to 35 degree centigrade water temperature.				
	<b>Out Put LPM</b>	<b>Pressure (Kg/Cm2)</b>	<b>Suction Lift (Measured Vertically Foam Water Level to be suction Eye (m))</b>	<b>Remark</b>	
	3200	8.5	1.5	When working through 2.5 mtr. Length of specified suction h	
	2400	10.0	1.5		
4.2.4	The Suction eye of the pump shall be provided with standard 100 mm suction hose connection with internal strainer and blank cap. The strainer shall be retained firmly when in use but shall be readily removable. The Pump shall be provided with two delivery outlets at the pump panel fitted				

	with screw type quick closing clack valves with standard 63 mm delivery hose connection and gun metal blank cap fastened with chains.		
4.2.5	The pump casing and impeller shall be free from casting defects such as blow holes etc. Pump shall be tested to a hydraulic pressure of 28 kg/sq cm to detect any leakage/perforation etc.		
4.2.6	The pump shall be connected with the water tank, Water Cannon Vehicles and spray nozzles. The various controls for operating the pump unit, cannons, spray nozzles etc. shall be pneumatic controlled and located in c @^ Á á ; ã ç ^ ! q • Á & æ à È Á T æ} ~ æ   Á Ô [ } c ! [   Á at the side pump control panel.		
4.3	<b>PRIMER</b> The Primer shall be capable of lifting water at least from a depth of 7 m at a rate not less and 30 cms/sec. and shall be of exhaust ejector type or reciprocating type.		
4.4	<b>ENGINE FOR DRIVING PUMP :-</b> Water or air cooled diesel should be capable of running between 25 C and + 40 C. The engine pump assemble shall be mounted in a locker behind c @^ Á á ; ã ç ^ ! q • Á & æ à ã } È Á Œ á ^ ~ ~ æ c ^ Á   [ ~ ç ventilation.		
4.5	<b>COOLING SYSTEM :-</b>		
4.5.1	In addition to the radiator cooling, indirect cooling system of the open circuit type shall be provided with the pump-engine, discharging water to the waste, this shall be enable full power output to be maintained during continuous stationary running of the engine without overheating.		
4.5.2	The operating temperature of the cooling water shall be thermostatically controlled.		
4.5.3	The oil in the oil pump shall be prevented from overheating and the pump characteristics shall be so chosen that the engine does not run at its maximum speed for giving maximum output.		
4.5.4	Suitable gauge for cooling water and glow lamp for lubricating system of ] ~ { ] Á ^ } * ã } ^ Á • @æ     Á à ^ Á ] ! [ ç ã á ^ á Á ã } Á c shall be marked with operating temperature.		
4.5.5	Protective wire mesh guard of 10 gauge wire dia and 25 mm opening shall be provided underneath the pump engine. Locker to cover the open space.		
4.6	<b>WATER CANNON :-</b> Two Water Cannons shall be mounted on the roof of the cab in such a manner that this can be manually and electrically operated by members of the crew within the drã ç ^ ! q • Á & æ à È Á V @^ Á Ô æ} } [ ) traversing through 360 degree in the horizontal plane and ELEVATION movement 20 degree downward and 50 degree upward in the vertical plane. A powerful search light shall be suitably fitted with the cannon so as to adequately illuminate the area of operation. The output of the each cannon shall be 1100 liter per minute at a pressure of 10 kg/cm2 and a throw of not less than 45 meter. The cannons shall be manual and electrically controlled type so that cannons movement could be effected by { ^ æ} • Á [ ~ Á • ^ ] æ ! æ c ^ Á b [ ^ • c ã & \ Á • ~ ã c æ controls shall be provided with manual override controls so that in case of failure of the electrical systems it should be possible to operate the cannons manual   ^ Á ~ ! [ { Á , ã c @ã } Á c @^ Á á ; ã ç ^ ! c folding type should be provided in front of the cannon to protect the handler from stone pelting.		
4.7	<b>PULSE JET ARRANGEMENT :</b> The Water cannon shall be fitted with Pulse Jet arrangement so as to discharge water in the form of water shots (Pulse of short duration). If		


	required the cannons shall also be capable of discharging water in continuous stream shall be affected by simple arrangement.		
4.8	<p><b>GROUND SPRAY NOZZLES :-</b> To protect the vehicle during the operation it shall be provided will two nos spray nozzles in front of the vehicle between the front wheels. The spray nozzles shall have a wide jet pattern to cover an area, at least twice the width of vehicle with a throw of min 6 m.</p>		
4.9	<p><b>REAR SPRAY NOZZLES :-</b> Three Nos. Rear Spray nozzles shall be provided to protect the vehicle from the Rear so that the mob does not come near the vehicle from rear Wide pattern spray nozzles shall be located suitably having a minimum throw of 6 m.</p>		
5.	<p><b>BODY WORK AND STOWAGE :-</b> Enclosed accommodation with double compartment for driver and leader in the front seat and a crew of four in the rear seat shall be provided. The design of the cab shall be such that it shall afford maximum possible vision for the crew and shall ensure adequate ventilation. Hinged doors shall be provided on both sides of the appliance. The doors should be opened outward and shall hung forward and have locks with double catch striking plates. All doors/windows shall be fitted on polycarbonate sheets and should have winding type regulators. Wind screen of the splinter proof safety type shall be provided with removable protective wire mesh guard of 10 gauge wire dia and 25 mm opening. Wire mesh guard is also to be provided on head and other lights of the vehicles. All glasses including wind shield shall be provided with removable protective wire mesh screen. A protective grill shall also be provided to keep crowd away from controls of cannons. A glass panel should be fitted on the roof of the vehicle to see the position of the canon by the user. The control panel for the pump operation should be self sufficient and every operation can be controlled by the officer sitting in the cab. Protective grill shall be provided at the front of the vehicle extending below cab to prevent items getting under the vehicle. The cab and body should be of composite construction with sufficient rigidity and strength. It shall be of all steel construction. Pressed section of sufficient strength shall be used for the super structure. Mild Steel sheets of 16 gauge shall be used for panelling outside. For panelling locker on in sides, 18 gauge mild steel sheet shall be used. Locker shall be provided for the stowage of all the equipment given in the list of equipment at Appendix-A. The locker shall be provided with internal automatic lighting arrangement with master switch in the cab. The locker shall be of weather proof and self draining to release all water following a wash down etc.</p>		
6	<p><b>INSTRUMENT AND CONTROL :-</b> The following controls to be provided at the pump panel :-</p> <ol style="list-style-type: none"> <li>a) Pressure Guage calibrated to 20 kg/cm<sup>2</sup></li> <li>b) Compound Guage calibrated as follows:- <ol style="list-style-type: none"> <li>i) Pressure from 0 to 7 kg/cm<sup>2</sup></li> <li>ii) Vacuum from 0 to 760 mm of mercury.</li> </ol> </li> <li>c) Cooling Water temperature Guage.</li> <li>d) Oil pressure Guage.</li> <li>e) Engine Starter.</li> <li>f) Engine Throttle</li> <li>g) Pump suction connection.</li> <li>h) Fuel Guage</li> </ol>		




	<p>i) Control for tank to pump.  j) Priming lever  k) Pump to tank valve.  include the following in addition to the controls/gauges provided by the chassis manufacturers.</p> <p>e) Pressure Gauge Calibrate to 20 kg/CM2  f) Water level indicator to read 0,1/4,1/2,3/4 and Full.  g) Compound Gauge calibrated as above.  h) Pneumatically operated control for the following:-  5. Tank to Pump  6. Control for Cannon with manual over rides  7. Control for Front and Rear Spray Nozzles  8. Control for pump engine stop.</p> <p>e) Master switch for locker lights  f) Switch for siren, cannon search light etc.  g) Throttle control for engine.  h) Switch for cabin light/blinker light, beacon light siren etc.  i) Engine Starter &amp; Throttle for Pump Engine.  j) Pump hour metre.  k) Batteries- Main Engine, Pump Engine and Operating System of Canon all shall be 24 Volts DC Battery Compatible.</p>		
7	<p><b>Pneumatic Source :-</b>  Air supply for the pneumatic valves should be taken from the auxillary engine and not from the main chassis engine. A shut off devices shall be provided additionally.</p>		
8.	<p><b>WORKMANSHIP &amp; FINISH :-</b>  The standard of workmanship and finish of all mechanical and other parts shall be such that the parts normally required to be replaced can be supplied and will fit correctly. The appliance shall be painted camouflage shall be painted Gray. Under chassis shall be painted black. Necessary air-corrosion and priming coat shall be applied before painting.</p>		
8.2	<p>The driver seat shall be adjustable type vertically forward and backward. The officer seat shall be fixed type. Both the seats shall be rigidly fixed to the flooring by means of nuts and bolts.</p>		
9.	<p><b>LITERATURE, ACCESSORIES AND EQUIPMENTS :-</b></p>		
9.1	<p><b>The following literature shall be provided :-</b>  (2) User Handbook: With illustration both for operating and normal maintenance procedure for the appliance.  Illustrated Part identification: It shall include an item wise and illustration spare part the proper reference number such that parts are made easily available when necessary.</p>		
9.2	<p><b>The following accessories shall be provided in addition to those normally fitted on modern commercial vehicles :-</b>  12) Electric Siren: A battery operated siren of 2 km range shall be suitable located on the cab roof.  13) Fog Lamps (Two): Low mounted of design approved by purchaser.  14) Reversing Light (One): Suitably situated to assist in reversing.  15) V, ā } Á Œ{ à ^   Á Ó   ā } \ ^   Á   ā * @c Ç U } ^ D K Á ù  16) Trafficators (one set): Illuminated with indicating light on instrument panel or in any other prominent position.  17) Search Light(One): Adjustable to give flood or light mounted on a convenient position but capable of being readily disconnected and</p>		

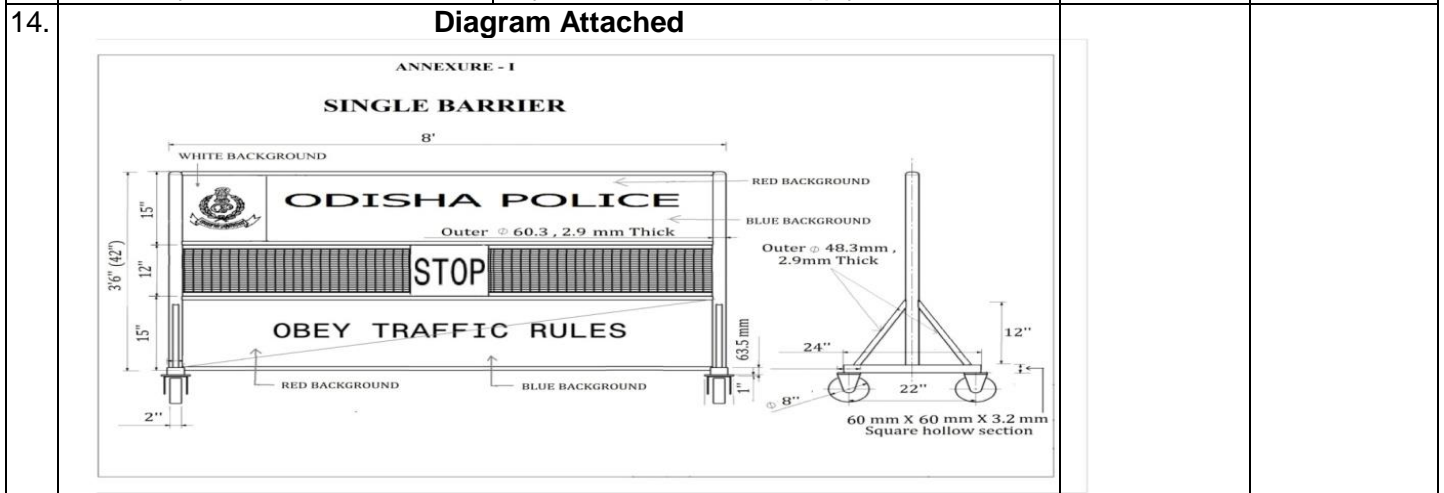
	<p>mounted on tripod stand away from the appliance, complete with tripod stand and 30 m TRS cable on a reel mounted on the appliance.</p> <p>18) Inspection Lamp with Bracket(One) : Protected type of wander lead type plugging in the lamp.</p> <p>19) 30 m cable and plug/socket arrangement.</p> <p>20) Cab instrument panel and locker lights.</p> <p>21) Standard Fire Extinguisher of ISI Mark.</p> <p>Tools: All tools required for normal maintenance of the appliance.</p>		
9.3	external rear view mirrors should be fitted to the cab.		
9.4	The driver-cum-crew cabin shall be provided with full four doors, one for driver, one for officer and tow at the crew compartment. The door shall be generously size for easy embarking/ disembarking of crew members. All the doors shall be fitted on the super structural members, each hung upon three invisible coach type M.S stout hinges and fitted with best quality handles.		
9.5	The door handle on outside of driver seat shall have a locking arrangement. Other door shall be lockable from inside. In addition to the doors locks, aluminium tower bolt shall be provided for all the doors from inside adequate grab rails shall be provided for easily boarding and alighting from the appliance.		
9.6	The windscreen glass shall be provided in the two halves and shall be semi curved type. Each glass shall be fitted in E.P.D.M rubber beading. The glasses shall be 5 mm thick toughened safety glass. There should be provision for riot proof guard.		
9.7	The rubber beading used for fitting glasses and window frame shall be E.P.D.M rubber.		
9.8	The driver seat shall be adjustable type vertically, forward and backward. The other officer seat shall be fixed type. Both the seats shall be rigidly fixed to the flooring by means of nuts and bolts.		
9.9	The seat cushion shall be of latex foam rubber 75 mm thick upholstered in good quality foam leather cloth.		
9.10	Below the crew seat, two lockers shall be provided one for battery box and another for keeping accessories. The extra length of battery cable if required shall be provided.		
9.11	The crew seat shall be rigidly fixed to floor by means of nuts and bolts, running full width of the vehicle suitable for sitting five police personnel , covered with 75mm X 50mm cushion latex foam rubber upholstered in good quality foam leather of approved shape.		
9.12	The rear body shall be fabricated in continuation and in line. The under frame cross members shall be fabricated from rolled M.S channel of 100 X 50 X 5 mm size.		
9.13	The M.S runner of 100 X 50 X 5 mm size shall be provided over the full length of the chassis member for the uniform distribution of load over the chassis.		
9.14	Each cross members shall be secured to the chassis frame by 16 mm dia		
9.15	Balata packing of thickness 6 mm shall be provided in between the chassis frame and cross member.		
9.16	The structure/ frame work shall be welded constructions and made from 2		

	mm thick M.S pressed sections and square tubes. The angles and channels used shall be of minimum 3 mm thickness. The complete structure material shall be treated for anti corrosion by ZINC PLATING. The plating thickness shall not be less than 20 microns. Two coats of epoxy paint shall be applied to the completely welded structure. The complete rear of the vehicle should be closed type to prevent crowd from climbing on the vehicle. A door with internal locking system should be provided on the rear of the vehicle. The approach ladder and the NRV control should be housed inside the door.																							
9.17	The structure shall be so designed so as to avoid any vibration/ rattling/ deformation in the intended usage of the vehicle.																							
10	<p><b>ACCEPTANCE TEST</b></p> <p>The following test shall be carried out before accepting the vehicle. These shall be carried out at manufacturers works or at a place to be mutually agreed upon. All materials required for the test will be provided by the manufacturer till acceptance.</p> <p>d) <b>LOAD DISTRIBUTION</b> :- The front axle, rear axle and total weight of the fully loaded appliance shall be checked as per GVW of Chassis and weight of front axle and rear axle should not exceed the recommended weight of the chassis manufacturer.</p> <p>e) <b>PUMP TEST</b> :-</p> <p>i) The Pump shall be run for a period of four hours non stop to check the rated output at varying pump pressure with 3 m suction lift using an appropriate size suction hose. The test may be conducted after mounting the engine and pump on the chassis and before connecting the pump to water tank. During the test, the water shall not be replenished for the &amp; [ [   ā } * Á • ^ • c ^ { Á æ } á Á c @ ^ Á c ^ { ] ^ ! æ c ~ i / or 90% of the oil manufacturers rated temperature (whichever is less) and engine shall show no signs of distress during the test. The temperature of &amp; [ [   ā } * Á , æ c ^ ! Á Ç ; æ â ā æ c [ ; Á , æ c ^ ! D Á • @ a</p> <p>ii) The pump casing and impeller shall be subjected to hydraulic pressure of twice the rated pressure or one and an half time the shut-off pressure, whichever is more to detect any leakage, perforation etc.</p> <p>Test shall be made to check fulfillment of the requirements laid down in <b>para 4.2.3.</b></p> <p>f) <b>PRIMER TEST:</b></p> <p>The lift for the primer test shall be measured from the centre of suction eye to the water level and the shall be carried out to check the fulfillment of requirement laid down in <b>para 4.3.</b></p> <p>E) <b>WATER CANNON VEHICLE &amp; SPRAY NOZZLES:</b></p> <p>The tests shall be conducted to check the requirement laid down in <b>para 4.6 to 4.9</b> to the satisfaction of inspecting committee.</p>																							
11.	<p><b>ACCESSORIES</b></p> <p>The following accessories shall be supplied along with the vehicle :-</p> <table border="1"> <tr> <td>1 suction hose in 2.5 m length with diameter of 100 mm with standard thread coupling</td> <td>S1-902/2410</td> <td>Four No</td> </tr> <tr> <td>1 suction strainer for use with 100 mm diameter hose</td> <td>IS . 907</td> <td>One No</td> </tr> <tr> <td>1 suction strainer for above</td> <td>IS . 3582</td> <td>One No</td> </tr> <tr> <td>1 pair of Wrenches</td> <td>IS . 4643</td> <td>One Pa</td> </tr> <tr> <td>1 collecting head 3 way Gun Metal</td> <td></td> <td>One No</td> </tr> <tr> <td>1 pipe of 63 diameter and 30 m long with 100 mm diameter instantaneous couplings</td> <td>IS-636 II &amp; IS-J € H Á V ^ ]</td> <td>4 (30 mtr. Le</td> </tr> <tr> <td>1 supply branch pipe with 12 mm and 19 mm diameter fittings</td> <td></td> <td>Two set</td> </tr> </table>	1 suction hose in 2.5 m length with diameter of 100 mm with standard thread coupling	S1-902/2410	Four No	1 suction strainer for use with 100 mm diameter hose	IS . 907	One No	1 suction strainer for above	IS . 3582	One No	1 pair of Wrenches	IS . 4643	One Pa	1 collecting head 3 way Gun Metal		One No	1 pipe of 63 diameter and 30 m long with 100 mm diameter instantaneous couplings	IS-636 II & IS-J € H Á V ^ ]	4 (30 mtr. Le	1 supply branch pipe with 12 mm and 19 mm diameter fittings		Two set		
1 suction hose in 2.5 m length with diameter of 100 mm with standard thread coupling	S1-902/2410	Four No																						
1 suction strainer for use with 100 mm diameter hose	IS . 907	One No																						
1 suction strainer for above	IS . 3582	One No																						
1 pair of Wrenches	IS . 4643	One Pa																						
1 collecting head 3 way Gun Metal		One No																						
1 pipe of 63 diameter and 30 m long with 100 mm diameter instantaneous couplings	IS-636 II & IS-J € H Á V ^ ]	4 (30 mtr. Le																						
1 supply branch pipe with 12 mm and 19 mm diameter fittings		Two set																						

12	<u>Warranty</u>	3 years from date of supply / installation.		
	NB:- Inspection of the fabrication work will be carried out in three stages or more by the Inspection Committee, for which necessary inspection expenses for inspection team shall be borne by the Fabricator other than the fabricator of twin cities i.e. Cuttack / Bhubaneswar			
<b>48.</b>	<b>Portable Mosquito Fog Machine</b>			
	<b>Technical Specification</b>			
1	Dimensions (Length x Breadth x Height)	106cm x 29cm x 33cm maximum		
2	Empty weight	7kg approx $\pm$ 10%		
3	Chemical tank	5ltrs capacity $\pm$ 10%.		
4	Fuel tank	2ltrs capacity $\pm$ 10%.		
5	Fuel tank pressure	Non pressurized fuel tank		
6	Max fuel consumption	1.5 . 1.9 ltr/hour		
7.	Flow rate according to nozzle size used	30ltrs / hour max.		
8.	Standard flow rate	10ltrs / hour max.		
9.	Ignition	Electric ignition coil fed by 4 dry cells		
10.	<b>Accessories.</b>	a) Solution Nozzles 1.0		
		b) Fuel and solution funnel with strainer (mesh width 0.1mm)		
		c) Set of maintenance tools and clearing tools.		
		d) Carrying strap		
11	The product should be of ISI marked & ISO marked of reputed brand.			
12	Non -Pressurized Tank - Safety Reasons.			
13	Automatic Cut Out - Off Valve - Safety Reasons.			
14	Should be of reputed brand.			
15	Service facilitates either from OEM or authorised service provider in Odisha.			
16	Copy signed broacher of the product quoted should be provided along with tender documents and details of the product quoted should be mentioned in the Company website.			
17	Warranty	1 year from date of supply		
	Diagram Attached.			
				
<b>49.</b>	<b>Sanitary Destroyer Machine(Incinerator)</b>			
	<b>Technical Specification</b>			
1.	LOAD	10-12 napkins per cycle		
2.	MODE	Automatic		
3.	Dimension	2 feetx 1.5 feetx1.25 feet		
4.	Operation	Timer Cut Off ) Fully Automatic Temp Rise, Automatic Cut Off & Automatic Operation)		

5.	Heater	1000W		
6.	Temperature Set	350°C ( in test condition it should resist to 700°C with well heat management)		
7.	Max Temperature Limit	450 deg C		
8.	Body Material	Mild Steel		
9.	Type of insulation	High Quality Ceramic		
10.	Coating	Powder coating		
11.	Warranty	15 months		
	Remarks	Preference will be given to Odisha State Manufacturer / Trader having their own TRADE MARK REGD with sales / service facility within Odisha will be given priority		
<b>50.</b>	<b>Road Divider Cone</b>			
	<b>Technical Specification</b>			
1	Material : Fibre glass			
2	Fibre glass TRIANGULAR CONE of total height 700mm with base 400x400x400mm (Approx.) All the three sides to have retro reflective plastic hook for chain/rope. Cone of colour should be red / orange.			
3	Warranty :- 2 years from date of supply.			
	Diagram Attached.			
				
<b>51.</b>	<b>Iron Framed Road Barrier (Single)</b>			
	<b>Technical Specification</b>			
1.	Size	1.2m x 0.9m x 0.9m (H x W x D) pipe of outer diameter 48.3 mm, thickness 2.9 mm on the sides of the barrier.		
2.	Diameter of Pipe	M.S. 60.3 mm (outer) of approved make		
3.	Thickness of pipe	2.9 mm		
4.	Rectangular M.S. sheets and Wire Mesh with angle and flat support	- 2 M.S. sheets of 18 gauge ( one at the top and another at the bottom) of approved make - one wire mesh at middle of the barricade Thickness of wire -3mm Square size-30mm x 30mm - 25mm X 25mm x 5 mm angle support and 25mm x 4mm of flat support of approved make		
5.	Box type wheel base for the barrier	Made of 60mm X 60mm X3.2mm MS		

		be fitted on 60.3 mm pipe frame with provisã [ } Á c [ Á à ^ Á ~ ã c c ^ à wheels. Welding of two L shaped angles is not acceptable.		
6.	Wheels	-4 (four) nos. of rotating polypropylene , @^ ^   • Á Ç , @ã c ^ Á & [   [ ^ on one axle. The base width of the axle should be such that the barrier is stable / balanced.		
7.	Painting	The body of the barrier shall be painted white (minimum 2 coats).		
8.	Retro reflective snickering of Top MS sheet (Both sides)	Entire top M.S sheet shall be covered with good quality retro reflective adhesive sheet having Commissionerate logo (30 cm heightX20 cm width) on white à æ& \ * ! [ ^ } á Á æ} á Á   ^ c c Ú U Š Q Ô Ò + Á ã } Á , @ã c ^ Á & [ background as per the drawing.		
9.	Retro reflective snickering of bottom MS Sheet (Both sides)	Entire bottom MS sheet shall be covered with good quality retro reflective adhesive • @^ ^ c Á @æç ã } * Á   ^ c c ^ ! Ü W Š Ò Ò + Á Ç P ^ ã * @c Á F Í Á & on Red and Blue background as per the drawing.		
10.	Retro reflective stickering of Stop sheet (Both sides)	The stop sheet in the middle of the barricade shall be covered with good quality retro reflective adhesive sheet @æç ã } * Á   ^ c c ^ ! • Á % Ú V U white colour on Red background as per the drawing		
11.	Welding	Proper welding at junctions & joints, Smooth & grinded to prevent injury to the user. Appropriately painted to conceal rough edges		
12.	Lock System	- One side, one hook of steel 50 mm diameter. - Other side, ring type female port of 60 mm diameter - Two side handles to move the barrier.	-	-
13.	Warranty	2 years from date of supply.		



<b>52.</b>	<b>Sound Level Meter</b>			
	<b>Technical Specification</b>			
1.	Measurement range	20-140dB RMS in a single measurement range (without the need for switching in ranges)		
2.	Accuracy	Class 1, IEC 61672-1:2013		
3.	Simultaneous measurement of A, C and linear (Z)	RMS and Peak both		
4.	Simultaneous measurement of Fast, Slow and Impulsive	According to IEC 61672-1: (2013).		
5.	Measurement	Leq, Sound Exposure Level (LAE), LAF Min, LAF Max, Laeq with date and time		
6.	Display	Colour display with update period 0.5 seconds		
7.	Microphone	+ Á Ö   æ • - polarised back electret.		
8.	Internal clock for date and time			
9.	Inbuilt GPS facility to be provided in Sound level meter			
10.	Alkaline or rechargeable cells with at least 11 hrs of back up			
11.	Compatible with portable mini dot matrix printer with 2" wide printing mechanism			
12.	TEMP	Operating range -10°C to 50°C		
13.	Storage	Minimum 2GB inbuilt memory/ minimum 750 runs storage		
14.	Calibration	Model number should be calibrated by National Physical Laboratory India		
15.	Field calibration	Auto calibration by application of 1KHz calibrator, nominal level 114/94 dB ( +/- 1 dB). Separate calibrator to be provided. Sound level meter should detect calibrator and gets calibrated automatically ( user friendly). Calibration should be conducted before and after each reading, and before and after result with date and time should get printed on report.		
16.	Record printout from printer to come with State police Logo, date and time of pre and post calibration of noise measurement. GPS location. Decibel readings etc			
17.	Printer	a) Should be BIS approved b) Dot matrix principle c) Handheld portable d) Rechargeable e) Should have internal memory where user can take printout by connecting printer to computer without SLM		
18.	Overall weight of kit	Should not exceed more than 3 Kgs		
19.	Total kit required	Sound level meter, Acoustic calibrator, Dot matrix rechargeable printer, Chargers, Cells and Carry case		
<b>53.</b>	<b>Breath Analyzer with Printer</b>			
	<b>Technical Specification</b>			
a)	General Criteria			
1	The device should be light weight, smaller with modern design & having one button operation for faster & smooth operation.			

2	The housing should be made of impact resistant ABS/PC.		
3	The device should have ingress protection class against dust & water IP 50 or above.		
4	The device should have a integrated clock to show the requirement of calibration interval.		
5	The device should have CE marking		
6	The device should have protected against vibration & shock according to EN 600682-32.		
7	The device should be as per EN 16280, EN 15964, NHTSA, FDA conformity depending on the configuration.		
8	The device should have an operating temperature range of -5 to 50 degree centigrade.		
b)	DEVICE		
1	The device should be ready for use after 4 seconds of switching on.		
2	The device should have a graphic backlight LED display.		
3	The device should have one LED to support the indication of results & warning message.		
4	The device should have various audible signal to support messages & warnings on the display.		
5	The device should have various audible signal to support messages & warnings on the display.		
6	The power supply should be given by one lithium-ion battery with charge level indicator in display for the user. One battery pack should perform over one thousand test results.		
7	The device should have an electrochemical sensor.		
8	The device should measure 0 to 5.00% volume of alcohol, if the measurement level is exceeded a message should be displayed.		
c)	Sampling		
1	The device should have automatic sampling either on minimum volume response blow time is reached or when end of breath is reached depending upon the configuration.		
d)	Mouthpiece		
1	The device should have new generation mouthpiece with a protecting cover for mouthpiece to protect it from dust.		
e)	Warranty: - 1 year from the date of supply.		
<b>54.</b>	<b>Industrial Safety Helmet</b>		
	<b>Technical Specification</b>		
1.	ISI marked (IS: 2925) industrial safety helmet made of tough light weight superior HDPE with minimum 4-6 point STAZ on suspension with LDPE cross members on head.		
2.	It should have adjustable ratchet and black nylon chin strap.		
3.	Helmet shall be provided with appropriate sweatband to absorb and dry sweat from the forehead and must have the facility / slot to fix ear muff.		
4.	One piece of extra chin strap shall be supplied along with the helmet.		
5.	Warranty: 3 years from the date of supply		
<b>55.</b>	<b>Mountaineering Helmet</b>		
	<b>Technical Specification</b>		
1.	Six-point webbing suspension system conforms to the shape of the head for improved comfort. Shock absorption achieved through deformation of the outer shell.		



2.	Center Fit adjustment system ensures centering and optimal stability of the helmet on the head								
3.	Ventilation holes with sliding shutters allow the ventilation to be adjusted as needed from the outside								
4.	Side slots for mounting hearing protection								
5.	Inserts for accepting a VIZIR face shield								
6.	Slot for mounting PIXA headlamp								
7.	Four clips for mounting a headlamp with an elastic headband								
8.	Chin strap designed to limit risk of losing helmet during a fall (strength greater than 50 daN)								
9.	Available in six colors								
10.	Two thicknesses of foam bands included for customized fit <u>Specifications</u> Weight: 455 g, Head circumference min.: 53 cm Head circumference max.: 63 cm Made in: FR Certification(s): CE EN 12492* UIAA								
11.	Warranty : 3 years from the date of supply								
<b>56.</b>	<b>Head Light with attachment</b>								
	<b>Technical Specification</b>								
1.	<b>Description</b>								
i.	Headlamp of hands free for work and Worn on the head with the headband								
ii.	Attached to the helmet with a mounting plate.								
iii.	Placed on the ground CONSTANT LIGHTING technology ensures brightness that does not gradually decrease as the battery drains lighting for professionals that is reliable, practical and durable.								
iv.	Two lighting modes (low & high)								
v.	Mode for close-range work: comfortable flood beam for proximity vision.								
vi.	Automatically switches to reserve mode when batteries are almost drained (signaled by blinking light).								
vii.	Rotating Knob that is ergonomic, even with gloves								
viii.	Storage position helps protect the headlamp lens and prevents inadvertently turning it on								
ix.	May be used in explosive environments.								
x.	Excellent resistance for falls (2 m), impacts, and crushing (80 kg) ( $\pm 5\%$ )								
xi.	Comfortable and washable elastic headband								
2.	<b>Technical Specification</b> Weight:- 160g ( $\pm 5\%$ ) Technology:- CONSTANT LIGHTING Beam Pattern: Flood Energy: 2 AA/LR06 batteries (included) Battery Compatibility:-Rechargeable Ni-MH and Lithium Water tightness: IP 67 (Waterproof to . 1 Meter for 30 Minutes ( $\pm 5\%$ ) No maintenance required after immersion)								
	<table border="1"> <tr> <td>Referecnce</td> <td>E78AHB 2</td> </tr> <tr> <td>Certification (S)</td> <td>CE, ATEX : zone 2/22</td> </tr> <tr> <td>Colour (S)</td> <td>Black / Yellow</td> </tr> </table>	Referecnce	E78AHB 2	Certification (S)	CE, ATEX : zone 2/22	Colour (S)	Black / Yellow		
Referecnce	E78AHB 2								
Certification (S)	CE, ATEX : zone 2/22								
Colour (S)	Black / Yellow								
3.	Warranty . 3 years from the date of supply								

<b>57. Ear Muff (Ear Plug)</b>		
<b>Technical Specification</b>		
1. Material: Made of soft eco- friendly Fibre material corded		
2. Provision: with a lace or same type of other arrangement to keep units of both the ear together.		
3. Application: To prevent of entry of dust and loud sound in to the year		
4. materials coming in contact with the body shall not cause irritation		
5. It shall be resistant to skill, oil, hair oil and ear wax		
6. Ear protector shall be made of material which is being cleaned and sterilized		
7. Ear plug should be elastic to the ear canal		
8. Ear plug should be made so that no deleterious change occurs between - 25 and +55 degree centrigade.		
9. Warranty . 1 year from the date of supply		
<b>58. Night Lighter (LED torch Light 4 Cell)</b>		
<b>Technical Specification</b>		
1. Bulbs:- White LED bulbs of minimum 2.5 watt.		
2. Batteries:- Powered with 4 D-size super heavy duty batteries		
3. Casing:- High quality plastic / Metal casing with lanyard.		
4. Accessories:- Four D-size Alkeline Batteries		
5. Brand & Service:- Should be of reputed brand and should have service facilities in Odisha		
6. <b>Warranty:-</b> 1 year from the date of supply		
<b>59. Stainless Steel Tray</b>		
<b>Technical Specification</b>		
1. Made out of best quality of stainless steel (size- F 1 + A Ç S D A ± 2% F G -		
2. Shape: Rectangular		
3. Tray: Divided into 6 Sections of reputed brand		
4. Weight: Not less than 800 Gms ± 2%		
5. Warranty:- 1 year from the date of supply		
<b>60. Stainless Steel Glass</b>		
<b>Technical Specification</b>		
1. T æ å ^ Á [ ~ c Á [ ~ Á à ^ • c Á ~ ~ æ   ã c ^ Á [ ~ Á • c æ ã }		
2. Shape: Round		
3. Weight: Not less than 125 Gms ± 2% of reputed brand		
4. Warranty:- 1 year from the date of supply		
<b>61. Stainless Steel Bucket 10 Ltrs. Capacity</b>		
<b>Technical Specification</b>		
1. T æ å ^ Á [ ~ c Á [ ~ Á à ^ • c Á ~ ~ æ   ã c ^ Á [ ~ Á • c æ ã }		
2. Weight: Not less than 1200 Gms ± 2% of reputed brand		
Warranty:- 1 year from the date of supply		
<b>62. Stainless Steel Mug (1 Ltr. Mug)</b>		
<b>Technical Specification</b>		
1. Made out of best quality of stainless steel with carrying handle		
2. Warranty:- 1 year from the date of supply		

Signature and Seal of Bidder.

**FINANCIAL BID FORMAT****Tender Call Notice No.  
Tender Document No.-VI****Name of the Item :****PART-I**

1. Name and address of the Bidder.
2. Whether a manufacturer / Authorized Agent.
3. States in which Business run.
4. State from which material would be delivered if found successful in the bid.
5. GST Registration Number.
6. PAN :-
7. Annual Turnover of Previous Financial year.
8. Whether the above Registration Certificates are valid / suspended / cancelled at the time of filing tender.
9. Whether up to date returns under all Acts filed ?

**PART-II**

1. Brand name of the item manufactured / traded : --
  2. Basic unit Price : --
  3. IGST @ -- % : --
  4. OGST @ --- % --
  5. CGST @ ---- % --
  6. Freight / Transportation Charges :--
  7. Loading and Unloading Charges :-
  8. Any Other Charges before Delivery :-
  9. Any other Charges including installation charges :-
- 
10. Gross Price of the Unit to be considered  
(Sum total of Sl.1 to 9 of Part-II above)
  11. Total Sum payable for supply of entire bid quantity.  
(Mark NA against the Sl. Which is not applicable)

**PART-III**

1. Terms & Conditions of Delivery
2. Terms and Conditions of Payment
3. Preference for mode of payment of "Performance Security" -

**Seal & Signature of the Bidder**