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SUPPLY, INSTALLATION & COMMISSIONING OF TRIPLE QUADUPOLE GAS CHROMATOGRAPH MASS SPECTROMETER (GCMS-MS)SYSTEM

NATIONAL CENTRE FOR ANTARCTIC & OCEAN RESEARCH (Ministry of Earth Sciences, Govt. Of India) Headland Sada, Vasco-da-Gama GOA -403 804, INDIA. Tel: 91- (0) 832 2525571 Telefax: 91- (0) 832 2525573 Email: <u>warlu62@ncaor.gov.in</u> Website: www.ncaor.gov.in

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NATIONAL CENTRE FOR ANTARCTIC & OCEAN RESEARCH (Ministry of Earth Sciences, Govt. Of India), HEADLAND SADA, VASCO-DA-GAMA, GOA - 403 804

TENDER NO. NCAOR/LAB-2184/PT-32 TENDER FOR SUPPLY, INSTALLATION AND COMMISSIONING OF TRIPLE QUADUPOLE GAS CHROMATOGRAPH MASS SPECTROMETER (GCMS-MS) SYSTEM.

1.	SUPPLY, INSTALLATION AND COMMISSIONING	
	OF TRIPLE QUADUPOLE GAS CHROMATOGRAPH	
	MASS SPECTROMETER (GCMS-MS) SYSTEM	
	Specifications	As per Annexure-I
	Quantity	01 No.
2.	General Terms and Conditions	As per Annexure II
3.	Cost of Tender Documents (In Person)	US\$1900.00 `2000.00
4.	Cost of Tender Documents (By Post)	US \$ 50.00 ` 2050.00
5.	EMD	Tender documents can be
		downloaded by tenderers from
		NCAOR website. In case a
		tenderer is using the documents
		and forms downloaded from the
		website, the cost of tender
		documents shall be sent in the
		form of Bank Draft in a separate
		envelope along with the tender.
		A) Foreign Bidders shall submit
		EMD along with their tender, in the
		form of a <u>bank guarantee only</u> for
		a sum of US \$1900 (US\$ One
		Thousand Nine Hundred only)
		B) Indian Bidders shall submit
		EMD along with their tender, either
		by DD drawn in favor of NCAOR, for
		a sum of 1, 00,000/-(Rupees One
		Lakh only) payable at Vasco-da-
		Gama only.
		UI In the form of a hank guarantee
		for a sum of 1000000 (Purses
		One Lath $on w$
6	Last Date and time for issue of tender documents	MONDAY
0.	Last Date and unit for issue of tender documents	13 10 2014
		1600 Hrs (IST)
7	Last Date and time for submission of sealed	TUESDAY
1.	duotations	14.10.2014
	quotationo	1700 Hrs (IST)
8	Date and time of tender opening	WEDNESDAY
0.	Date and time of tender opening	15 10 2014
		10.10.2017 1000Hrs (IST)
		1000115 (101)

<u>TECHNICAL SPECIFICATIONS FOR SUPPLY, INSTALLATION AND COMMISSIONING OF</u> <u>TRIPLE QUADUPOLE GAS CHROMATOGRAPH MASS SPECTROMETER (GCMS-MS)</u> <u>SYSTEM</u>

Requirement

Triple quadrupole Gas Chromatograph mass spectrometer system (Top-of-the-line model) with windows base software is needed for qualitative and quantitative analysis of liquid/Gas/Solid samples for wide range of R&D application mainly Persistent Organic Pollutants, Hydrocarbons including PAH, Alcohols, Fatty Acids, Heterocyclic Compounds (including PCB'c, pesticides etc.) and VOC's in water, air and soil/sediments samples up to 1 pg level.

Gas Chromatograph should have self diagnostic functions, built in keyboard and screen to control various parameters, apart from software controlling system through PC.

Compliance of system for measurement techniques

It must include a Gas Chromatograph with two injection ports, FID detector, and Triple Quadrupole mass spectrometer with DIP, EI, PCI & NCI, with liquid Auto Injector/Sampler and PC workstation with licensed software. System should have a facility to run MS and FID with single sample injection with variable split ratio for feed to MSD and FID.

GAS CHROMATOGRAPHY

Injector

Split/Split less Injectors:

- Split/split less injectors with temperature range up to 400°C or higher and all carrier gases to be automatically controlled from software (AFC/EPC/PPC).
- Fittings suitable for columns of 0.1mmID to 0.53mmID
- Working temperature range:40 to 400°C or higher with 1°C increment
- Pressure setting up to 900Kpa or more for all type of column
- At least five step flow/pressure programming
- Split ratio setting:-1 -5000 minimum and total flow up to 1000ml/min

On-Column and Programmable Temperature Vaporizer Injector:

- OCI with PTV injectors with temperature range up to 400°C or higher and all carrier gases to be automatically controlled from software (AFC/EPC/PPC)
- Working temperature range:40 to 400°C or higher with 1°C increment
- Pressure setting up to 900Kpa or more for all type of column
- Heating rate: 40 to 400°C in 5 minutes or less. Maximum heating rate 200°C or more.
- Cooling rate: 400 to 40°C in 10 minutes or less.

Column Oven:

- Working temperature range: ambient plus 5°C to 400°C or higher with increment and accuracy+/-0.5°C or better
- Column overheat protection
- Ramped heating program, 10 or more ramp and dwell times/Multi-step temperature programming
- Oven capacity to accommodate dual capillary column
- Should be equipped with fast cooling system so as to reduce cooling time of 400 to 40°C in less than 10 minutes and heating time 40 to 400°C in less than 10 minutes.

FID (Flame Ionization Detector):

System should have FID detector in addition to MS detector having details as mentioned below:

- Temperature range up to 400°C or above
- Minimum Detection quantity : 2 pg C/s (Dodecane) or lesser
- Dynamic range: 10⁷ or better

Chromatographic performance:

- Retention time repeatability <0.008% or <0.0008min
- Area repeatability < 1% RSD

Columns:

- Fused silica column (30 m x 0.25 mm ID, 0.25 μ) cross linked 5% phenyl methyl silicon equivalent to DB-5-MS-4Nos.
- Fused silica column (60 m x 0.25 mm ID, 0.25 μ) cross linked 5% phenyl methyl silicon equivalent to DB-5-MS-4Nos
- Fused silica column (100 m x 0.25 mm ID, 0.25 μ) Cyanopropyl Polysiloxane equivalent to DB-23-MS-2Nos.

MS-MS Detector

Triple-Quadrupole Mass Analyzer:

- Mass range<10-1000 or more (da or amu or u)
- Mass Analyzer-Metal Quadrupole mass filter with pre rods
- Mass Resolution-minimum 0.7 amu or better
- GC transfer line (interface) temperature Settable up to 350°C
- Scan rate-11000 amu/second or more
- Scan rate fully variable
- MRM speed (transitions/sec) 500 MRM/Sec or more
- Simultaneous analysis of SRM or MRM with full SCAN/SIM and SCAN in one injection
- Scan Modes: Precursor, Product, Neutral Loss, SIM, MRM

Ion Source.

- Ionization mode-EI, PCI, NCI
- Electron Energy: 10-150 eV (user selectable)
- Temperature settable from 150°C to 300°C
- Filament: Dual (Automatic switching) with Emission Current: 5 to 230 µA.

Detector:

- Sealed long-life electron multiplier
- Lens for noise reduction and 10kv Conversion dynode
- Must have wide dynamic range

Vacuum System.

- System should have high capacity differential pumped vacuum system
- Pump Air-cooled turbo molecular of 250 L/sec or more with separate pumping for ion source and quadruple for homogenous vacuum backed up by rotary pump of at least 30ltr/min
- Vacuum gauge provided as Standard for wide-range of vacuum monitoring.
- Vacuum control should be fully automatic to make ON/OFF of each pump in startup & shut down, opening & closing of valve.

Sensitivity and capability:

EI full scan sensitivity 1.0pg OFN<u>></u>850:1 & Guaranteed Installation Specs for MRM sensitivity 100fg OFN, S/N<u>></u>5000: 1 or more.

- PCI MRM S/N 1 u1 of 100fg Benzophenone (Bzp) m/z 193 -> 110 should produce S/N ratio of 150: 1 or more
- NCI scan of 1 pg OFN m/z 272 should produce S/N ratio of 4000: 1 or more

Direct Insertion Probe:

- System should have facility to inject solid & liquid samples directly in to MS bypassing GC for analysis of pure high molecular weight samples without venting vacuum and without dismantling GC & MS apart or disturbing GC set up or passing the samples through GC column.
- Independent heating up to 500°C & 5 steps temperature program levels.

Detector Splitting System with independent auto flow control:

• System should have a facility to split the sample at the end of the column in a variable ratio decided by the user to FID and MS-MS simultaneously in one injection.

LIQUID AUTO INJECTOR/SAMPLER:

• System should be having auto sampler with capacity of minimum 100 vial tray or more for automated operation of liquid samples.

DYNAMIC HEAD SPACE SAMPLER WITH TRAP

- Low level detection up to ppb and sub ppb level of VOC
- Dynamic head space with direct interface with GC,
- Should have 30 vial carousal or more, 10 vial incubator with vial mixer/shaker
- Vial temperature minimum 150°C, flow control, PC controlled
- Should allow headspace injection

AIR SAMPLE COLLECTOR

- For air sampling at field, sequential pump with more than 20 ATD sample tubes should be provided, with diffusion limiting caps.
- Should be capable to operate on 12V battery and or240 V AC.
- It should also be supplied with carbopack and corbosieve tubes (10 numbers each) sample tubes and monitoring pump with all accessories to make to completely functional set at field
- Additionally it should be supplied with five numbers set of pocket series pump(portable small, lightweight and compact) for collection of VOC'S with 10 tubes.

THERMAL DESORPTION SYSTEM

- Automated system with > 40 TD tube with essential sampling accessories
- Pump with facility to flow 25 ml/minute to 100 ml/minute at 80°C to 300°C for sampling offsite
- Should be provided with 10 tubes each for VOC estimation as per EPA method
- System should be compatible with entire TD application range i:e C₂ to nC₄₀ hydrocarbon plus labile compounds
- It should have controlled coo-ed packed cold trap capable of cooling sub-zero temperature as per standard EPA methods

VENT-FREE GC/MS ADAPTER

- Should support GC/MS
- Maximum temperature: 400°C or better
- Column: Ultra ALLOY[™] (id 0.25mm) /Fused Silica (id 0.25/0.32mm)

GAS CYLINDERS WITH PURIFICATION PANEL

- Helium, hydrogen, nitrogen, zero air (two sets each), Isobutene with gas purification panel for all gases with required purification
- CI reagent gas cylinders-(methane, ammonia and isobutene-one each)

Regulators (from Reputed International Manufacturers)

• Two stage, metal diaphragm, S.S. body regulators for all gas cylinders

DATA SYSTEM

GCMS-MS software:

It should perform quantitative and qualitative analysis, Full Instrument Control with data collection & processing, user friendly in operation. Should have in built in facility for automatic retention time adjustment function, automatic method development for SCAN and SIM, System suitability, simultaneous measurement of SIM & SCAN, automatic tuning, detailed library search function having similarity search + Similarity search with retention index + index search.

Mass Spectral Database: Latest version of NIST and Pesticide libraries.

MRM Database: The database should be simple & easy to use, can be added to the GC-MS/MS method.

- Change between EI, PCI, NCI by user without any hassle
- Software must be capable of fully automated peak centering in all modes of operation and preferably of peak de-convolution of peaks
- Parameters such as stability and linearity must be monitored and determined automatically during acquisition of samples

Upgradation of software as and when available from company should be provided free of cost.

Computer System

Minimum: Processor 3.4GHz: 8MB: 4C, 8GB Dual Channel DDR3 SDRAM Memory, 1TB SATA 3.0Gb/s Hard Drive, 16X DVD+/-RW drive, 20" Monitor with FHD LED, USB Optical Mouse, USB keyboard, 500 GB hard drive, Genuine windows 7/8-64 bit professional. **Printer**: Color laser printer with minimum 600 dpi resolution

AFTER SALES SUPPORT

Vendor must have service organization in India, for which detailed documentation is required, including full disclosure of names, locations, training, and years of experience. The company must offer regularly scheduled, formal user training courses with published syllabi and supported by formal printed documentation. Response for service and troubleshooting should be within seven days.

DEMONSTRATION DURING INSTALLATION

Initial training and demonstration on supplied and commissioned instrument and accessories should also be provided to group of Scientists at NCAOR-Lab

- The quality of analyses, leading to confidence and defensible results. *Full automation from sample introduction to reporting*
- High precision measurements for small sample sizes, or gases
- All consumables and standards required for demonostation will be provided by the vendor
- Comprehensive set of automated diagnostics
- Low noise design

INSTALLATION & TRAINING

Complete systems and its peripherals should be installed and commissioned at NCAOR. After successful installation selected scientific/technical personnel from NCAOR should be provided with hands-on and in-depth training on the operation and maintenance of the system as well as specific application training by factory engineers and application specialists at factory/site for not less than 10 days.

SPARES AND CONSUMABLES

Supplier should provide commitment to provide all parts of the instrument and ancillary supplied systems for ten years from the date of installation.

- The offer should include all spare/accessories/consumables/standards for the entire system and its peripherals which are not covered in the comprehensive warranty, for ensuring trouble free performance of the system for the three years. The supplier will be solely responsible for any additional requirements for spares/consumables within this period.
- Full service manuals with circuit diagrams and circuit descriptions should be supplied, along with diagnostic tools including interface cards and software, plus any specialized mechanical tools required for instrument servicing/repair.
- For each module the quotations should include an indication of all consumables required per full batch of samples.

WARRANTY

The supplier should provide comprehensive on-site warranty for the entire system and peripherals (including parts and labour) for three years after successful installation and commissioning of complete system. The supplier should also quote AMC on regular basis beyond the warranty period for a period of three years.

TECHNICAL BID SHOULD BE ACCOMPANIED BY

- 1. One set of catloges of full system (all modules).
- 2. Any module included is manufactured by another manufacturer; letter of agreement and terms and conditions is also to be enclosed.
- 3. Statement of all site requirements for installation and operations of the equipment specified.

TECHNICAL COMPLIANCE STATEMENT FOR SUPPLY, INSTALLATION AND COMMISSIONING OF TRIPLE QUADUPOLE GAS CHROMATOGRAPH MASS SPECTROMETER (GCMS-MS) SYSTEM

Sr. No.	TECHNICAL COMPLIANCE STATEMENT FOR SUPPLY, INSTALLATION AND COMMISSIONING OF TRIPLE QUADUPOLE GAS CHROMATOGRAPH MASS SPECTROMETER (GCMS-MS)	COMPLIED/ NOT COMPLIED	EXTRA FEATURES
	SYSTEM		
1	Requirement		
	Triple quadrupole Gas Chromatograph mass spectrometer system (Top-of-the-line model) with windows base software is needed for qualitative and quantitative analysis of liquid/Gas/Solid samples for wide range of R&D application mainly Persistent Organic Pollutants, Hydrocarbons including PAH, Alcohols, Fatty Acids, Heterocyclic		
	Compounds (including PCB'c, pesticides etc.) and VOC's in water, air and soil/sediments samples up to 1 pg level.		
	Gas Chromatograph should have self diagnostic functions, built in keyboard and screen to control various parameters, apart from		
-	software controlling system through PC.		
	Compliance of system for measurement techniques It must include a Gas Chromatograph with two injection ports, FID detector, and Triple Quadrupole mass spectrometer with DIP, EI, PCI & NCI, with liquid Auto Injector/Sampler and PC workstation with licensed software. System should have a facility to run MS and FID with single sample injection with variable split ratio for feed to MSD and FID.		
	GAS CHROMATOGRAPHY		
	Injector		
	Split/Split less Injectors:		
	• Split/split less injectors with temperature range up to 400°C or higher and all carrier gases to be automatically controlled from software (AFC/EPC/PPC).		
	 Fittings suitable for columns of 0.1mmiD to 0.53mmiD Working temperature range:40 to 400°C or higher with 1°C increment 		
	Pressure setting up to 900Kpa or more for all type of column		
	 At least live step llow/pressure programming Split ratio setting:-1 -5000 minimum and total flow up to 		
	1000ml/min		
	On-Column and Programmable Temperature Vaporizer Injector:		
	 OCI with PTV injectors with temperature range up to 400°C or higher and all carrier gases to be automatically controlled from software (AFC/EPC/PPC) Working temperature range:40 to 400°C or higher with 1°C 		
	increment		
	 Heating rate:40 to 400°C in 5 minutes or less. Maximum heating rate 200°C or more. 		
	Colling rate: 400 to 40 C in 10 minutes or less.		
	 Working temperature range: ambient plus 5°C to 400°C or higher with increment and accuracy+/-0.5°C or better 		
	 Column overheat protection Ramped heating program, 10 or more ramp and dwell times/Multi-step temperature programming 		
	Oven capacity to accommodate dual capillary column		
	• Should be equipped with fast cooling system so as to reduce cooling time of 400 to 40°C in less than 10 minutes and beating time 40 to 400°C in less than 10 minutes		
	FID (Flame Ionization Detector):		
	System should have FID detector in addition to MS detector		

	having details as mentioned below:	
	• Temperature range up to 400°C or above	
	• Minimum Detection quantity : 2 pg C/s (Dodecane) or lesser	
	• Dynamic range: 10 ⁷ or better	
	Chromatographic performance:	
	• Retention time repeatability <0.008% or <0.0008min	
	• Area repeatability<1%RSD	
	Columna:	
	• Eused silice column (20 m x 0.05 mm ID, 0.05u) cross linked	
	• Fuscu since column (50 in x 0.25 inin 1D, 0.25µ) cross mixed	
	5% phenyl methyl sincon equivalent to DB-5-MS-4Nos.	
	• Fused slinca column (ou m x 0.25 mm ID, 0.25μ) cross linked	
	5% pnenyl metnyl silicon equivalent to DB-5-MS-4Nos	
	• Fused silica column (100 m x 0.25 mm ID, 0.25μ)Cyanopropyl	
	Polysiloxane equivalent to DB-23-MS-2Nos.	
	MS-MS Detector	
	Triple-Quadrupole Mass Analyzer:	
	 Mass range<10-1000 or more (da or amu or u) 	
	 Mass Analyzer-Metal Quadrupole mass filter with pre rods 	
	 Mass Resolution-minimum 0.7 amu or better 	
	 GC transfer line (interface) temperature Settable up to 350°C 	
	 Scan rate-11000 amu/second or more 	
	Scan rate fully variable	
	 MRM speed (transitions/sec) 500 MRM/Sec or more 	
	• Simultaneous analysis of SRM or MRM with full SCAN/SIM	
	and SCAN in one injection	
	• Scan Modes: Precursor, Product, Neutral Loss, SIM, MRM	
	Ion Source.	
	Ionization mode-EI, PCI, NCI	
	• Electron Energy: 10-150 eV (user selectable)	
	• Temperature settable from 150°C to 300°C	
	• Filament: Dual (Automatic switching) with Emission Current: 5	
	to 230 µA.	
	Detector:	
	Sealed long-life electron multiplier	
	Lens for noise reduction and 10ky Conversion dynade	
	Must have wide dynamic range	
-	Vacuum System	
	System should have high capacity differential numbed vacuum	
	• System should have high capacity uncrential pumped vacuum	
	 Pump Air-cooled turbo molecular of 250 L (sec or more with 	
	separate numping for ion source and quadruple for	
	homogeneils vacuum backed up by rotary nump of at least	
	301tr/min	
	Vacuum gauge provided as Standard for wide-range of vacuum	
	monitoring	
	 Vacuum control should be fully automatic to make ON/OFF of 	
	each nump in startup & shut down opening & closing of value	
	Sensitivity and canability.	
	• FI full scan sensitivity 1 Ong OFN's 850.1 & Guaranteed	
	Installation Space for MRM sensitivity 100fg OFN S/NN 50000	
	1 or more 1 or more	
	DCI MDM S / N 1 111 of 100 fr Dongon honoro (Dgn) m / a 102	
	• FOI MININ S/M I UT OF TOOLS DELIZOPHENDIE (BZP) III/Z 193 ->	
	 NCI scop of 1 pg OEN m/g 070 should produce S/N ratio of 	
	• INCL Scall of 1 pg OF N $\frac{11}{2}$ 272 should produce S/N ratio of 4000.1 or more	
	Direct Insertion Brobe:	
	Direct insertion Frome:	
	• System should have facility to inject solid & liquid samples	
	unectly in to MS bypassing GC for analysis of pure high	
	molecular weight samples without venting vacuum and	
	without dismanting GC & MS apart or disturbing GC set up or	
	passing the samples through GC column.	

	• Independent heating up to 500°C & 5 steps temperature	
	program levels	
	Detector splitting system with independent auto now control:	
	• System should have a facility to split the sample at the end of the column in a variable ratio decided by the user to FID and	
	MS MS simultaneously in one injection	
	LIOUID AUTO INJECTOR/SAMPLER	
	• System should be having auto sampler with capacity of	
	minimum 100 vial tray or more for automated operation of	
	liquid samples.	
	DYNAMIC HEAD SPACE SAMPLER WITH TRAP	
	• Low level detection up to ppb and sub ppb level of VOC	
	 Dynamic head space with direct interface with GC. 	
	• Should have 30 vial carousal or more, 10 vial incubator with	
	vial mixer/shaker	
	• Vial temperature minimum 150°C, flow control, PC controlled	
	Should allow headspace injection	
	AIR SAMPLE COLLECTOR	
	• For air sampling at field, sequential pump with more than 20	
	ATD sample tubes should be provided, with diffusion limiting	
	caps.	
	• Should be capable to operate on 12V battery and or240 V AC.	
	 It should also be supplied with carbopack and corbosieve 	
	tubes (10 numbers each) sample tubes and monitoring pump	
	with all accessories to make to completely functional set at	
	tield	
	• Additionally it should be supplied with five numbers set of	
	for collection of VOC'S with 10 types	
	THERMAL DESORPTION SYSTEM	
	• Automated system with > 40 TD tube with essential sampling	
	accessories	
	• Pump with facility to flow 25 ml/minute to 100 ml/minute at	
	80°C to 300°C for sampling offsite	
	• Should be provided with 10 tubes each for VOC estimation as	
	per EPA method	
	• System should be compatible with entire TD application range	
	i:e C2 to nC40 hydrocarbon plus labile compounds	
	 It should have controlled coo-ed packed cold trap capable of 	
	cooling sub-zero temperature as per standard EPA methods	
	VENT-FREE GC/MS ADAPTER	
	Should support GC/MS	
	• Maximum temperature: 400°C or better	
	• Column: Ultra ALLOY ^{IM} (id 0.25mm) / Fused Silica (id	
	0.25/0.32mm)	
	GAS CYLINDERS WITH PURIFICATION PANEL	
	• Helium, hydrogen, nitrogen, zero air (two sets each), isobutene	
	purification	
	CL reagent gas cylinders-(methane, ammonia and isobutene-	
	one each)	
	Regulators (from Reputed International Manufacturers)	
	Iwo stage, metal diaphragm, S.S. body regulators for all gas cylinders	
	GCMS-MS software:	
	It should perform quantitative and qualitative analysis, Full	
	Instrument Control with data collection & processing, user friendly in	
	operation. Should have in built in facility for automatic retention time	
	adjustment function, automatic method development for SCAN and	
	SIM, System suitability, simultaneous measurement of SIM & SCAN,	
1	automatic tuning, detailed library search function having similarity	

	search + Similarity search with retention index + index search		
	Mass Snectral Database: Latest version of NIST and Pesticide	libraries	
	MBM Detabase: The detabase should be simple & easy to use	oon ho	
	MRM Database . The database should be simple & easy to use	, can be	
	added to the GC-MS/MS method.		
	• Change between EI, PCI, NCI by user without any has	sle	
	 Software must be capable of fully automated peak cen 	tering in	
	all modes of operation and preferably of peak de-convo	olution of	
	peaks		
	• Parameters such as stability and linearity must be mo	nitored	
	and determined automatically during acquisition of sa	mples	
	Ungradation of software as and when available from company	should	
	be provided free of cost	onouna	
	Computer System		
	Minimum Processor 2 4011-1 9MD: 40, 90D Dual Channel DE	202	
	MIIIIIIIIIIIII PIOCESSOI 5.4GHZ. OMD. 4C, OGD Duai Chaillei DL		
	SDRAM Memory, TIB SATA 3.0GD/s Hard Drive, ToX DVD+/-	KW 1	
	drive, 20" Monitor with FHD LED, USB Optical Mouse, USB ke	eyboard,	
	500 GB hard drive, Genuine windows 7/8-64 bit professional.		
	Printer : Color laser printer with minimum 600 dpi resolution		
	AFTER SALES SUPPORT		
	Vendor must have service organization in India, for which deta	uled	
	documentation is required, including full disclosure of names,		
	locations, training, and years of experience. The company mus	st offer	
	regularly scheduled, formal user training courses with publish	led	
	syllabi and supported by formal printed documentation. Respo	onse for	
	service and troubleshooting should be within seven days.		
	DEMONSTRATION DURING INSTALLATION		
	Initial training and demonstration on supplied and commission	ned	
	instrument and accessories should also be provided to group of	of	
	Scientists at NCAOR-Lab		
	• The quality of analyses leading to confidence and defe	ensible	
	results Full automation from sample introduction to res	ortina	
	High provision monosurements for small some la sizes		
	• High precision measurements for small sample sizes, (JI gases	
	• All consumables and standards required for demonost	ation	
	will be provided by the vendor		
	Comprehensive set of automated diagnostics		
	Low noise design		
	INSTALLATION & TRAINING	Factory	
	Complete systems and its peripherals should be installed		
	and commissioned at NCAOR. After successful installation		
	selected scientific/technical personnel from NCAOR should		
	be provided with hands-on and in-depth training on the	Site	
	operation and maintenance of the system as well as specific		
	application training by factory engineers and application		
	specialists at factory/site for not less than 10 days.		
	SPARES AND CONSUMABLES		
	Supplier should provide commitment to provide all parts of the	2	
	instrument and ancillary supplied systems for ten years from t	the date	
	of installation.		
	• The offer should include all		
	spare / accessories / consumables / standards for the en	tire	
	system and its peripherals which are not covered in the	e	
	comprehensive warranty for ensuring trouble free per	formance	
	of the system for the three years. The supplier will be	solely	
	responsible for any additional requirements for	551019	
	snares/consumables within this period		
	Full service menuals with sizevit discreme and sizevit		
	Full scivice manuals with circuit diagrams and circuit	toola	
	descriptions should be supplied, along with diagnostic		
	including interface cards and software, plus any speci	anzed	
	mechanical tools required for instrument servicing/rep	pair.	
	• For each module the quotations should include an ind	lication	
<u> </u>	of all consumables required per full batch of samples.		
	WARRANTY		

The sup entire s years a system the war	oplier should provide comprehensive on-site warranty for the system and peripherals (including parts and labour) for three fter successful installation and commissioning of complete . The supplier should also quote AMC on regular basis beyond ranty period for a period of three years.	
TECHN	ICAL BID SHOULD BE ACCOMPANIED BY	
1. 2. 3.	One set of catloges of full system (all modules). Any module included is manufactured by another manufacturer; letter of agreement and terms and conditions is also to be enclosed. Statement of all site requirements for installation and operations of the equipment specified.	

ANNEXURE - II

TERMS AND CONDITIONS FOR SUBMISSION OF QUOTATION

1) The National Centre for Antarctic and Ocean Research (NCAOR) invites sealed quotations in two-parts from the reputed firms for the "SUPPLY, INSTALLATION AND COMMISSIONING OF TRIPLE QUADUPOLE GAS CHROMATOGRAPH MASS SPECTROMETER (GCMS-MS) SYSTEM" as per the specifications given in Annexure-I.

2) The technical and financial bids should be submitted in two separate sealed covers, super scribing "Part –I Technical Bid for "SUPPLY, INSTALLATION AND COMMISSIONING OF TRIPLE QUADUPOLE GAS CHROMATOGRAPH MASS SPECTROMETER (GCMS-MS) SYSTEM", Tender No., due date and "Part-II Financial bid for "SUPPLY, INSTALLATION AND COMMISSIONING OF TRIPLE QUADUPOLE GAS CHROMATOGRAPH MASS SPECTROMETER (GCMS-MS) SYSTEM", Tender No., due date. Both the bids should be kept in a single cover by super scribing tender for "SUPPLY, INSTALLATION AND COMMISSIONING OF TRIPLE QUADUPOLE GAS CHROMATOGRAPH MASS SPECTROMETER (GCMS-MS) SYSTEM", Sealed and addressed to the Director, National Centre for Antarctic & Ocean Research, Headland-Sada, Vasco-da-Gama, Goa – 403 804. Offer sent through fax will not be accepted.

3) Overwriting and corrections should be attested properly. The bid should be complete in all respects and should be duly signed. **Incomplete and unsigned bids will not be considered at all.**

4) All relevant technical literature pertain to items quoted **with full specifications** (Drawing, if any), information about the products quoted, including brochures if any should accompany the quotation.

5) A list of **reputed clients** to whom the firm has supplied similar items to be furnished alongwith the quotation.

In the TECHNICAL BID, the Bidder should furnish the Name and address of the Purchasers placed orders on similar equipment with order No, date, Description and quantity, Date of Supply alongwith Contact person Telephone No, Fax No, and e mail address of Purchaser.

The Bidder should enclose copies of Purchase Orders only in the FINANCIAL BID.

6) Quotation should be **valid for a period of 120 days** from the date of tender opening and the period of delivery required should also be clearly indicated. If the supplier fails to deliver the goods within the time to be agreed upon, for delayed deliveries and for delays in installation

(wherever applicable). NCAOR reserves the right to **levy liquidated damages** at the rate of 0.5% per week or part their of up to maximum of 5%.

7) The **warranty period** and the kind of **post-warranty support** should be indicated. Warranty shall commence from the date of installation and acceptance of the complete equipment supplied under the Purchase Order / Contract.

8) Technical bid should contain EMD.

A) Foreign Bidders shall submit EMD along with their tender in the form of a bank guarantee for a sum of US \$ 1900.00 (US\$ One Thousand Nine Hundred only) from any reputed bank (scheduled bank in India or foreign bank having operational Branch in India) initially valid for 180 days from the date of closing of the tender as per the proforma enclosed. This bank Guarantee in original shall be submitted along with the technical bid only.

B) **Indian Bidders** shall submit **EMD** along with their tender, **either By DD** drawn in favor of NCAOR, on any nationalized bank for a sum of ` 1,00,000/- (Rupees One Lakh only) payable at Vasco-da-Gama only **or in the form of a bank guarantee** for a sum of ` 1,00,000/- (Rupees One Lakh only) from any reputed bank (scheduled bank) initially valid for 180 days from the date of closing of the tender as per the proforma enclosed. This bank Guarantee in original shall be submitted along with the technical bid only.

Tender without EMD in the envelope containing technical bid shall be summarily rejected. The EMD of unsuccessful bidders shall be returned within 30 days of the award of contract.

The earnest money will be liable to be forfeited, if the tenderer withdraws or amends, impairs or derogates from the tender if any respect within the period of validity of his tender.

9) Please **specify the Make/Brand** and Name of the Manufacturer with address, country of origin and currency in which rates are quoted.

10) The Purchaser requires that the bidders suppliers and contractors observe the highest standard of ethics during the procurement and execution of such contracts. In pursuit of this policy, the following are defined:

"Corrupt practice" means the offering, giving, receiving, or soliciting, directly or indirectly, of anything of value to influence the action of a public official in the procurement process or in contract execution: "fradulent practice" means a misrepresentation or omission of facts in order to influence a procurement process or the execution of contract;

"collusive practice" means a scheme or arrangement between two or more bidders, with or without the knowledge of purchaser, designed to establish bid prices at artificial, noncompetitive levels; and

"coercive practice: means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the procurement process or affect the execution of contract;

The purchaser will reject a proposal for award if it determines that the Bidder recommended for award has, directly or through an agent, engaged in corrupt, fraudulent, collusive or coercive practices in competing for the contract in question; The Decision of Director, NCAOR shall be final and binding.

11) Bidders that doesn't manufacture the goods it offers to supply shall submit Manufacturer's Authorization form on the letterhead of the Manufacturer duly signed and stamped by a person with the proper authority to sign documents that are binding on the Manufacturer as per the following format should be submitted failing which the quotation will not be considered.

To The Director NCAOR GOA

Sub: Manufacturers' Authorization form against Tender No:_____

We_____(Name of the Manufacturer) who are official manufacturers of ______(Type of goods manufactured) having factories at ______(full address of Manufacturer's factories) do hereby authorize ______(Name of the Bidder) to submit a bid against your Tender No.______for the ______Goods manufactured by us and to subsequently negotiate and sign the contract.

We hereby extend our full guarantee and warranty with respect to the Goods offered by the above firm

Manufacturer's Name: Signature of Authorized representative of the Manufacturer:

Duly authorized to sign this Authorization on behalf of : _____(Name of the Bidder)

Date:

In case the bidder not doing business within India, shall furnish the certificate to the effect that the bidder is or will be represented by an agent in India equipped and able to carry out the supply, maintenance, repair obligations etc., during the warranty and post warranty period or ensure a mechanism at place for carrying out the supply, maintenance, repair obligations etc., during the warranty and post-warranty period.

12) The order acknowledgement should be from the principals and if the Indian Agent is empowered to quote and to furnish order acknowledgement, a copy of agreement entered by you with the Indian Agent to be furnished.

13) **Compliance Statement:** Equipments point-by-point comparison/compliance statement with **technical specification** indicated in the tender, should be enclosed along with your tender as well as any other extra features of the equipment be shown separately therein and also **compliance statement for all commercial terms** of the tender document.

14) NCAOR is not entitled to issue form **"C/D**". No Sales Tax or any other Tax shall be payable by us unless payment of the same is specifically mentioned by the suppliers in their bids and same is legally leviable.

15) To avail duty concessions i.e. **Excise Duty** as per Govt. notification 10/97 & **Custom Duty** as per Govt. notification 51/96, NCAOR will provide exemption certificates. Hence, the rates should be split into basic cost and Excise Duty if any.

16) **Technical Bid should contain** all details and specifications of the equipment offered, delivery schedule, warranty, payment term, installation, training, post-warranty, user-list, service support <u>WITHOUT PRICE</u> and Financial bid should contain details of the price(s) of the item(s) quoted in the technical bid. The Technical bid should not contain any references to the pricing.

In case the technical bid contains any direct or indirect reference to quoted price the bid is liable to be rejected.

The Prices shall be quoted in Indian Rupees for offers received for supply within India and in freely convertible foreign currency in case of offers received for supply from foreign countries.

For Goods manufactured in India:

F.O.R GOA price should be indicated. However tender should contain item-wise prices including total ex-works price, Excise Duty, VAT/Taxes, Charges for Inland Transportation, Insurance and other local services required for the delivering the goods on F.O.R GOA.

17) In case of imported stores both **FOB and CIF prices upto Indian port of entry** namely Goa and for indigenous stores on F.O.R. destination basis should be indicated. However tender should contain item-wise prices including total ex-works price, overall weight & dimensions of the equipment and cost of packing forwarding, approx. cost of air-freight charges for delivery up to Goa, India.

18) A Committee constituted by the Director, NCAOR for the purpose reserves the right to open the bids. Only technical bids will be opened on the date and time mentioned in the tender document. The financial bids of those tenderers whose technical bids are found to be meeting our specifications only will be opened in their presence at date and time to be notified later.

19) The firm to the full satisfaction of the NCAOR should carry out the **installation and commissioning** at the NCAOR premises and the time-frame for the whole process should be specified in the technical bid.

20) A technical Committee constituted by the Director will assess the product supplied/installed for their quality and their conformity to the specifications provided by the firm in their quotations. Any item(s) identified by the Committee to be not as per the specifications or are found to be of inferior quality will be rejected, and the bills towards the supply will not be processed for payment till proper replacements are provided.

21) **No advance payment** will be made. Payment for indigenous stores shall be made within 30 days from the date of receipt, acceptance and satisfactory installation of equipment and incase of imported stores by **irrevocable letter of credit**. The payment will be authorized after submission of a Bank Guarantee for 10% value of the order towards warranty guarantee. The **performance Bank Guarantee** should be furnished within 15 days from the date of placement of order from a reputed bank (scheduled bank in India **or** foreign bank operating in India) valid till 60 days after the warranty period.

22) Suppliers should clearly define the mechanisms of **post-warranty** maintenance or support. Supplier should undertake to support the product for a minimum period of 5 years (postwarranty). Post Warranty, AMC charges for a period of 3 years (annual bases) should also be quoted separately in the financial bid.

23) If the quoted item needs to be imported then the undertaking needs to be produced from the original supplier stating that Post Warranty support for a minimum period of 7 years will be provided from the original supplier to NCAOR on LC Terms of payment. If payment needs to be made and **spares will be supplied on the lowest rate quoted** than to any other customer with providing the sales price list to the NCAOR periodically as and when increase/decrease in prices.

24) Two sets of operational, service/troubleshooting manuals and diagrams to be supplied with "SUPPLY, INSTALLATION AND COMMISSIONING OF TRIPLE QUADUPOLE GAS CHROMATOGRAPH MASS SPECTROMETER (GCMS-MS) SYSTEM".

25) **The submission of tender** shall be deemed to be an admission on the part of the tenderer, had fully acquainted with the specifications, drawings etc. and no claim other than what stated in the tender shall be paid in the event of award of Purchase Order.

26) Expenditure involved towards any extra materials required for labour involved for successful installation of the equipment, if not quoted for, would have to be borne by the tenderer.

27) **Acceptance of this tender** form and submission of the quote within the stipulated time would be treated as:

a) The tenderer has understood all requirements as described in our Tender document.

b) Acceptance to provide/establish all the facilities mentioned in our tender without any price escalation, if the tenderer finds it necessary to add any hardware or software or any other materials during implementation.

c) Agreeing to execute order to the satisfaction of NCAOR or its authorized representatives within the stipulated time.

28) Training /Installation charges should be clearly indicated including the scope of training.

29) Tender should clearly define the **infrastructure facilities required** for installation of the equipment.

30) NCAOR will not be liable for any obligation until such time NCAOR has communicated to the successful bidder of its decision to release the Purchase Order.

31) NCAOR will not be responsible for any postal delays.

32) Bidders shall note that NCAOR will not entertain any correspondence or queries on the status of the offers received against this Tender Invitation.

33) Tenders from Manufacturers/Suppliers/Tenderers whose performance was not satisfactory in respect of quality of supplies and delivery schedules in any organizations, are liable for rejection. The tenders that do not comply with the above criteria and other terms & conditions are liable for rejection.

34) The Director, NCAOR does not bind to accept the lowest quotation and reserves the right to himself, to reject or partly accept any or all the quotations received without assigning any reason.

35) All disputes arising in connection with executing the purchase order will be subject to the Jurisdiction of the Courts in Goa only.

COMMERCIAL COMPLIANCE STATEMENT FOR SUPPLY, INSTALLATION AND COMMISSIONING OF TRIPLE QUADUPOLE GAS CHROMATOGRAPH MASS SPECTROMETER (GCMS-MS) SYSTEM".

Sr. No.	COMMERCIAL SPECIFICATION FOR SUPPLY, INSTALLATION AND COMMISSIONING OF TRIPLE OUADUPOLE GAS	COMPLIED/ NOT	EXTRA FEATURES
	CHROMATOGRAPH MASS SPECTROMETER (GCMS-MS)	COMPLIED	
	SYSTEM)"		
1	A list of reputed clients to whom the firm has supplied similar		
	items to be furnished along-with the quotation.		
2	In the TECHNICAL BID, the Bidder should furnish the Name and		
	address of the Purchasers placed orders on similar equipment		
	with order No, date, Description and quantity, Date of Supply		
	alongwith Contact person Telephone No, Fax No, and e mail		
2	The Pidder should enclose conject of Purchase Orders only in the		
3	FINANCIAL BID.		
4	Quotation should be valid for a period of 120 days from the date		
	of tender opening and the period of delivery required should also		
	be clearly indicated.		
5	The warranty period and the kind of post-warranty support		
	should be indicated. Warranty shall commence from the date of		
	installation and acceptance of the complete equipment supplied		
6	under the Purchase Order / Contract.		
0	Foreign Bidders shall submit EMD along with their tender in the		
	One Thousand Nine Hundred only from any reputed bank		
	(scheduled hank in India or foreign hank having operational		
	Branch in India) initially valid for 180 days from the date of		
	closing of the tender as per the proforma enclosed. This bank		
	Guarantee in original shall be submitted along with the technical		
	bid only.		
7	Indian Bidders shall submit EMD along with their tender, either		
	By DD drawn in favor of NCAOR, on any nationalized bank for a		
	sum of `1,00,000/- (Rupees One Lakhe only) payable at Vasco-		
	da-Gama only or in the form of a bank guarantee for a sum of		
	1,00,000/-(Rupees One Lakhe only) from any reputed bank		
	(scheduled bank) initially valid for 180 days from the date of		
	Cuarantee in original shall be submitted along with the technical		
	bid only		
8	Tender without EMD in the envelope containing technical hid		
U	shall be summarily rejected. The EMD of unsuccessful bidders		
	shall be returned within 30 days of the award of contract.		
9	Please specify the Make/Brand and Name of the Manufacturer		
	with address, country of origin and currency in which rates are		
	quoted.		
10	The order acknowledgement should be from the principals and if		
	the Indian Agent is empowered to quote and to furnish order		
	acknowledgement, a copy of agreement entered by you with the		
	Indian Agent to be furnished.		
11	Compliance Statement: Equipments point-by-point		
	comparison/compliance statement with technical specification		
	indicated in the tender, should be enclosed along with your tender		
	separately therein and also compliance statement for all		
	commercial terms of the tender document		
12	NCAOR is not entitled to issue form "C/D". No Sales Tax or any		
	other Tax shall be payable by us unless payment of the same is		
	specifically mentioned by the suppliers in their bids and same is		
	legally leviable.		
13	To avail duty concessions i.e. Excise Duty as per Govt.		
	notification 10/97 & Custom Duty as per Govt. notification		
	51/96, NCAOR will provide exemption certificates. Hence, the		

	rates should be split into basic cost and Excise Duty if any.	
14	Technical Bid should contain all details and specifications of the	
	equipment offered, delivery schedule, warranty, payment term,	
	installation, training, post-warranty, user-list, service support	
	<u>WITHOUT PRICE</u> and Financial bid should contain details of the	
	price(s) of the item(s) quoted in the technical bid. The Technical	
	bid should not contain any references to the pricing.	
15	In case the technical bid contains any direct or indirect	
	reference to quoted price the bid is liable to be rejected.	
16	The Prices shall be quoted in Indian Rupees for offers received for	
	supply within India and in freely convertible foreign currency in	
	case of offers received for supply from foreign countries.	
	For Goods manufactured in India:	
17	F.O.R GOA price should be indicated. However tender should	
	contain item-wise prices including total ex-works price, Excise	
	Duty, VAT/Taxes, Charges for Inland Transportation, Insurance	
	and other local services required for the delivering the goods on	
	F.O.R GOA.	
18	In case of imported stores both FOB and CIF prices upto Indian	
	port of entry namely Goa and for indigenous stores on F.O.R.	
	destination basis should be indicated. However tender should	
	contain item-wise prices including total ex-works price, overall	
	weight & dimensions of the equipment and cost of packing	
	iorwarding, approx. cost of air-ireignt charges for delivery up to	
10	Goa, India.	
19	A committee constituted by the Director, NCAOR for the purpose	
	encode on the data and time mentioned in the tender decument	
	The financial hids of those tenderers whose technical hids are	
	found to be meeting our specifications only will be opened in their	
	presence at date and time to be notified later	
20	The firm to the full satisfaction of the NCAOR should carry out the	
	installation and commissioning at the NCAOR premises and the	
	time-frame for the whole process should be specified in the	
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26	The submission of tender shall be deemed to be an admission on the part of the tenderer, had fully acquainted with the specifications, drawings etc. and no claim other than what stated in the tender shall be paid in the event of award of Purchase Order.
27	Expenditure involved towards any extra materials required for labour involved for successful installation of the equipment if not
	quoted for, would have to be borne by the tenderer.
28	 Acceptance of this tender form and submission of the quote within the stipulated time would be treated as: The tenderer has understood all requirements as described in our Tender document. Acceptance to provide/establish all the facilities mentioned in our tender without any price escalation, if the tenderer finds it necessary to add any hardware or software or any other materials during implementation. Agreeing to execute order to the satisfaction of NCAOR or its authorized representatives within the stipulated time.
29	Training /Installation charges should be clearly indicated
	including the scope of training.
30	required for installation of the equipment.

QUESTIONNAIRE

- a. Name of the Manufacturer / Tenderer.
- b. Full postal address with Telephone, Telefax, Email.
- c. Please specify whether Public Limited, Company, Private Organization or Partnership Firm.
- d. Nature of the Business.
- e. Date of Establishment.
- f. Present Turnover.
- g. Permanent Income Tax Ref. No.
- h. C.S.T. / S.T. NO.
- i. Address & Telephone Nos. Of your branch office in GOA (please specify whether Distributing/Servicing/Marketing the products).
- j. Technical Compliance statement.
- k. Commercial Compliance statement.
- 1. Reference of reputed Customers.
- m. Details of the highest order executed and value thereof.
- n. Authorization from Manufacturer/Supplier attached.
- o. Tender fee submitted/enclosed.
- p. E.M.D. attached with TECHNICAL BID.
- q. Infrastructure facilities required for installation & commissioning attached.
- r. Technical Specifications/Literature/Brochure attached.
- s. Tender Acceptance.

TENDER ACCEPTANCE UNDERTAKING

То

The Director, NCAOR, Headland Sada, Vasco – Goa.

Having examined the tender document **for "SUPPLY, INSTALLATION AND COMMISSIONING OF TRIPLE QUADUPOLE GAS CHROMATOGRAPH MASS SPECTROMETER (GCMS-MS) SYSTEM"** we the undersigned hereby offer to supply the equipment in conformity with all specifications and conditions set out in the tender document.

We enclosed all the relevant documents as per the tender.

We understand that you are not bound to accept the lowest or any tender received.

Date :

(Signature of Bidder)

Name	:	
Designation	:	

Seal

BANK GUARANTEE FORMAT FOR FURNISHING EMD

То

NATIONAL CENTRE FOR ANTARCTIC & OCEAN RESEARCH Headland Sada, Vasco-da-Gama, GOA 403 804, INDIA

Whereas					
(Hereinaf	er called the "tenderer	"			
has submitted their	offer dated				
for the supply of					
(Herein at	ter called the "tender"				
WE		of having	g our regis	tered office	x
At		_ are bound	unto the	NATIONAL	
(Hereinafter cal	led the Bank)				
CENTRE FOR ANT	ARCTIC & OCEAN RE	ESEARCH, N	linistry of	f Earth Sc	iences, Govt. Of
India having its off	ice at Headland Sada	, Vasco Goa	403 804	, India (he	rein after called
NCAOR which expre	ssion shall unless rep	ugnant to th	le context	or meanin	g thereof include
all its successors, a	dministrators, executo	ors and assi	gns) in th	e sum of _	
for which payment	will and truly to be	made to.	NCAOR,	the Bank	binds itself, its
successors and assi	gns by these presents	. Sealed wit	h the con	nmon seal	of the said Bank
this	day of	2014.			

THE CONDITIONS OF THIS OBLIGATION ARE:

- 1) If the tenderer withdraws or amends, impairs or derogates from the tender in any respect within the period of validity of this tender.
- 2) If the tenderer having been notified of the acceptance of his tender by NCAOR during the period of its validity.

2.a) If the tenderer fails to furnish the Performance security for the due performance of the contract.

2.b) Fails or refuses to execute the contract

We undertake to pay NCAOR up to the above amount upon receipt of its first written demand, without NCAOR having to substantiate its demand, provided that in its demand the NCAOR will note that the amount claimed by it is due to it owing to the occurrence of one or both the two conditions, specifying the occurred condition or conditions.

This guarantee is valid until the _____ day of ____2014.

Signature of the bank

NATIONAL CENTRE FOR ANTARCTIC & OCEAN RESEARCH (Ministry of Earth Sciences, Govt. Of India) Headland Sada, Vasco-da-Gama GOA 403 804, INDIA Tel: 91- (0) 832 2525571 Telefax: 91- (0) 832 2525573 Email: warlu62@ncaor.gov.in Website: www.ncaor.gov.in

GLOBAL TENDER

Director, National Centre for Antarctic & Ocean Research (NCAOR) invites sealed tenders in two-parts (part I – Technical bid & part II Financial bid) super scribing Tender No. Item and due date from well established/ reputed manufacturers / authorized and bonafide vendors for supply of the following:-

S1. No.	Tender No.	Item Description	Qty.	Cost of Tender Doc.		Cost of EMD Tender Doc.)
				``	US\$	``	US\$	
1	NCAOR/LAB-2184/PT-32	SUPPLY, INSTALLATION AND COMMISSIONING OF TRIPLE QUADUPOLE GAS CHROMATOGRAPH MASS SPECTROMETER (GCMS-MS) SYSTEM	01	2000/-	50.00	1,00,000/-	1900.00	

Last date for issue of tender documents : Last date for submission of quotation :

: 13.10.2014 : 14.10.2014

The details of tender documents are also available in our website <u>http://www.ncaor.gov.in</u> and Central Public Procurement Portal <u>http://eprocure.gov.in</u>. Interested suppliers may download the details and submit the quotation on or before the due date along with tender fee.

The quotation without tender fee will not be considered.

Tender forms can be obtained from the Procurement section of NCAOR on all working days either by post or in person between 1000 - 1600 hours on payment of tender fees in the form of crossed Demand Draft payable at Vasco-da-gama only, from a Nationalized bank drawn in favor of **NCAOR** along with separate requisition indicating tender number and item. Tender forms can be obtained by speed post by remitting Rs. 50.00 by Indian bidders and US\$ 15.00 by Foreign bidders in addition to the cost of tender documents.

The Director, NCAOR is not responsible for any transitional/postal delays.

The quotations will be **opened on 15.10.2014** in the presence of tenderers or their authorized representatives.

The Director, NCAOR reserves the right to accept or reject any quotation in full or part thereof without assigning any reason.

-/Sd For & on behalf of NCAOR