

**TENDER: EUROPEAID/116299/D/S/TR**

**"VETERINARY LABORATORY EQUIPMENT AND EPIDEMIOLOGY MATERIALS"**

**CORRIGENDUM No. 1 to Tender Dossier**

The following alterations and/ or corrections are made to the tender dossier:

**Page 3: (Invitation to Tender for Veterinary Laboratory Equipment And Epidemiology Materials)**

**The former text:**

"We look forward to receiving your tender and the accompanying tender guarantee at the address specified in the Instructions to Tenderers before **08 March 2004, 17:00 hrs. local time.**"

**Shall read as new text:**

"We look forward to receiving your tender and accompanying tender guarantee at the address specified in the Instructions to Tenderers before **13 April 2004 at 17.00 hrs local time.**"

**Page 10: (A - Instruction to Tenderers)**

**The former text:**

	<b>DATE</b>	<b>TIME*</b>
<b>Deadline for request for any clarifications from the Contracting Authority</b>	<b>16 February 2004</b>	<b>17:00 Hrs *</b>
<b>Clarification meeting / site visit (if any)</b>	<b>Not Applicable</b>	<b>Not Applicable</b>
<b>Last date on which clarifications are issued by the Contracting Authority</b>	<b>26 February 2004</b>	<b>17:00 Hrs *</b>
<b>Deadline for submission of tenders</b>	<b>08 March 2004</b>	<b>17:00 Hrs*</b>
<b>Tender opening session</b>	<b>09 March 2004</b>	<b>10:00 Hrs *</b>
<b>Notification of award to the successful tenderer</b>	<b>02 April 2004<sup>3</sup></b>	<b>-</b>
<b>Signature of the contract</b>	<b>30 April 2004<sup>3</sup></b>	<b>-</b>

\* All times are in the time zone of the country of the Contracting Authority.

<sup>3</sup> Provisional date

**Shall read as new text:**

	<b>DATE</b>	<b>TIME*</b>
<b>Deadline for request for any clarifications from the Contracting Authority</b>	<b>23 March 2004</b>	<b>17:00 Hrs *</b>
<b>Clarification meeting / site visit (if any)</b>	<b>Not Applicable</b>	<b>Not Applicable</b>
<b>Last date on which clarifications are issued by the Contracting Authority</b>	<b>02 April 2004</b>	<b>17:00 Hrs *</b>

<b>Deadline for submission of tenders</b>	<b>13 April 2004</b>	<b>17:00 Hrs*</b>
<b>Tender opening session</b>	<b>14 April 2004</b>	<b>10:00 Hrs*</b>
<b>Notification of award to the successful tenderer</b>	<b>30 April 2004<sup>3</sup></b>	-
<b>Signature of the contract</b>	<b>14 May 2004<sup>3</sup></b>	-

\* All times are in the time zone of the country of the Contracting Authority.

<sup>3</sup> Provisional date

## **Page 11: (A - Instructions to Tenderers)**

**The former text:**

### **4. Origin**

- 4.1 Supplies must originate in a Member State of the European Union or in one of the MEDA, PHARE or CARDS countries or territories. The origin of the goods must be determined according to the Community Customs Code.

**Shall read as new text:**

### **4. Origin**

- 4.1 Supplies must originate in a Member State of the European Union or in one of the MEDA, PHARE or CARDS countries or territories. The origin of the goods must be determined according to the Community Customs Code. The rule of origin may not be applied for items 1.58-Ultracentrifuge, 1.50-Laser Printers and 1.50-Scanner under Lot 1, if there is no technically compliant equipment offered that originates in an eligible country.

## **Page 12: (A - Instructions to Tenderers)**

**The former text:**

- 10.3. All tenders must be received at **Central Finance and Contracts Unit, Ehlíbeyt Mahallesi, 6.Sokak No: 18/8, 06520 Balgat, Ankara, TURKEY** before the deadline date and time, **08 March 2004, 17:00 hrs. (Local time)**, by registered letter with acknowledgement of receipt or hand-delivered against receipt signed by the Programme Authorising Officer or his representative.

**Shall read as new text:**

- 10.3. All tenders must be received at **Central Finance and Contracts Unit, Ehlíbeyt Mahallesi, 6.Sokak No: 18/8, 06520 Balgat, Ankara, TURKEY** before the deadline date and time, **13 April 2004, 17:00 hrs. (Local time)**, by registered letter with acknowledgement of receipt or hand-delivered against receipt signed by the Programme Authorising Officer or his representative.

## **Page 17: (A - Instruction to Tenderers)**

### **The former text:**

19.2. The tenders will be opened in public session on **09 March 2004 at 10:00 local time at Central Finance and Contracts Unit, Ehlíbeyt Mahallesi 6.Sokak No: 18/8, 06520 Balgat, Ankara, TURKEY** by the committee appointed for the purpose. The committee will draw up minutes of the meeting, which will be available on request.

### **Shall read as new text:**

19.2. The tenders will be opened in public session on **14 April 2004 at 10:00 local time at Central Finance and Contracts Unit, Ehlíbeyt Mahallesi 6.Sokak No: 18/8, 06520 Balgat, Ankara, TURKEY** by the committee appointed for the purpose. The committee will draw up minutes of the meeting, which will be available on request.

## **Page 27- 28: (B. Draft Contract)**

### **The former text:**

#### **Article 2 Origin**

The supplies must originate in the European Community or a country that is a beneficiary of the PHARE, MEDA or CARDS programme. A certificate of origin for the supplies must be provided by the Contractor at the latest when he requests provisional acceptance of the supplies. Failure to comply with this condition may result in the termination of the contract.

The origin of the goods shall be determined according to the Community Customs Code or the international agreements to which the country concerned is a signatory.

### **Shall read as new text:**

#### **Article 2 Origin**

The supplies must originate in the European Community or a country that is a beneficiary of the PHARE, MEDA or CARDS programme. A certificate of origin for the supplies must be provided by the Contractor at the latest when he requests provisional acceptance of the supplies. Failure to comply with this condition may result in the termination of the contract.

The origin of the goods shall be determined according to the Community Customs Code or the international agreements to which the country concerned is a signatory.

The rule of origin may not be applied for items 1.58-Ultracentrifuge, 1.50-Laser Printers and 1.50-Scanner under Lot 1, if there is no technically compliant equipment offered that originates in an eligible country.

## **Page 32: (SPECIAL CONDITIONS)**

### **The former text:**

#### **Article 10 Origin**

No derogation from Article 10 of the General Conditions is authorised for this contract.

The supplies must originate in the European Community or a country that is a beneficiary of the PHARE, MEDA or CARDS programme. A certificate of origin for the supplies must be provided by the Contractor at the latest when he requests provisional

acceptance of the supplies. Failure to comply with this condition may result in the termination of this contract.

The origin of the goods shall be determined according to the Community Customs Code or the international agreements to which the country concerned is a signatory.

### **Shall read as new text:**

#### **Article 10    Origin**

The supplies must originate in the European Community or a country that is a beneficiary of the PHARE, MEDA or CARDS programme. A certificate of origin for the supplies must be provided by the Contractor at the latest when he requests provisional acceptance of the supplies. Failure to comply with this condition may result in the termination of this contract.

The origin of the goods shall be determined according to the Community Customs Code or the international agreements to which the country concerned is a signatory.

The rule of origin may not be applied for items 1.58-Ultracentrifuge, 1.50-Laser Printers and 1.50-Scanner under Lot 1, if there is no technically compliant equipment offered that originates in an eligible country.

### **Page 37: (SPECIAL CONDITIONS)**

#### **The former text:**

#### **Article 35    Breach of Contract**

35.3 The contract may be terminated as stated in article 35 and 36 of the General Conditions.

If termination results from inaction or fault on the part of the supplier, the Contracting Authority shall be entitled to compensation of 0.5/100 of the contract price per day's delay up to a limit of 10% of the total contract price.

If termination results from inaction or fault on his part, the Supplier shall be entitled to claim damages for the injury suffered up to a maximum of 10%, in addition to sums owned by him for services already performed.

### **Shall read as new text:**

#### **Article 35    Breach of contract**

35.3 The contract may be terminated as stated in article 35, 36 and 37 of the General Conditions.

If termination results from inaction or fault on the part of the supplier, the Contracting Authority shall be entitled to compensation up to a limit of 10% of the total contract price.

If termination does not result from inaction or fault on his part, the Supplier shall be entitled to claim damages for the injury suffered up to a maximum of 10%, in addition to sums owned by him for services already performed."

**Page 121: (Technical Specifications)**

**The former text in Item:**

**1.38 NITROGEN GENERATOR                      Quantity : 1**

<b>PARAMETER</b>	<b>MINIMUM REQUIRED CHARACTERISTICS</b>
<b>Properties</b>	Continuous flow of 99.999% pure nitrogen
	Suitable for use in GC applications

**Shall read as new text:**

**1.38 NITROGEN GENERATOR                      Quantity : 1**

<b>PARAMETER</b>	<b>MINIMUM REQUIRED CHARACTERISTICS</b>
<b>Properties</b>	Continuous flow of 99.999% pure gas nitrogen
	Suitable for use in Gas Chromatography applications

**Page 137-140: (Technical Specifications)**

**The former text in Item:**

**1.50 COMPUTERS & PRINTERS**

<b>PARAMETER</b>	<b>MINIMUM REQUIRED CHARACTERISTICS</b>
<b>Rule of Origin</b>	Supplies must originate in a Member State of the European Union or in one of the MEDA, PHARE or CARDS countries or territories.

**Shall read as new text:**

## 1.50 COMPUTERS & PRINTERS

PARAMETER	MINIMUM REQUIRED CHARACTERISTICS
Rule of Origin	Supplies must originate in a Member State of the European Union or in one of the MEDA, PHARE or CARDS countries or territories.  However, the rule of origin may not be applied for items Laser Printer and Scanner if there is no technically compliant equipment offered that originates in an eligible country.

### Page 151- 152: (Technical Specifications)

The former text in Item:

#### 1.58 ULTRACENTRIFUGE

Quantity : 1

PARAMETER	MINIMUM REQUIRED CHARACTERISTICS
Rule of Origin	Supplies must originate in a Member State of the European Union or in one of the MEDA, PHARE or CARDS countries or territories.

Shall read as new text:

#### 1.58 ULTRACENTRIFUGE

Quantity : 1

PARAMETER	MINIMUM REQUIRED CHARACTERISTICS
Rule of Origin	The rule of origin may not be applied this item if there is no technically compliant equipment offered that originates in an eligible country.

### Page: 159 (Technical Specifications)

The former text in Item:

1.63 SHAKER Quantity : 2

**Shall read as new text:**

1.63 ROCKER- SHAKER Quantity : 2

All terms regarding this item should be referred to Rocker- shaker throughout the TD.

**Page: 193- 269 (Technical Specifications)**

**The former text in Item:**

3.1 UV-VISIBLE SPECTROPHOTOMETER

PARAMETER	MINIMUM REQUIRED CHARACTERISTICS
Properties	Spectral slit at least 6 widths from 0.1 to 5nm

**Shall read as new text:**

3.1 UV-VISIBLE SPECTROPHOTOMETER

PARAMETER	MINIMUM REQUIRED CHARACTERISTICS
Properties	Spectral slit at least 6 widths from 0.2 to 4nm

**The former text in Item:**

3.2 GC/MS GAS CHROMATOGRAPH MASS SPECTROMETER

**Quantity: 1**

PARAMETER	MINIMUM REQUIRED CHARACTERISTICS
Pneumatic Control Unit	System must as a standard have EI/CI ionisation resources, Ionisation voltage must be adjustable between 0-70 eV
	Inlets and Detectors available with Electronic Pneumatic Control on all gas flows (carrier, split, vent, makeup, and combustion gases)

<b>Autosampler</b>	Carry-over: not measurable after 3 solvent flushes
<b>Mass Spectrometer</b>	Ionisation modes: electron impact ionization – EI , Chemical Ionization – CI, or equivalent SIM
	Turbomolecular pump, air cooled, providing a vacuum better than 2 mPa in the manifold, have at least 250 litre He/Second vacuum capacity
	The vacuum system of apparatus is to be constituted with a pre-pump and diffusion pump, the diffusion pumps capacity must be at least 90 litre/minute Helium
<b>Spectral Libraries</b>	<b>Databases-</b> MS software must include the time programmable acquisition segments to allow for changes between EI, CI and MS in a single analysis

**Shall read as new text:**

**3.2 GC/MS GAS CHROMATOGRAPH MASS SPECTROMETER**

**Quantity: 1**

<b>PARAMETER</b>	<b>MINIMUM REQUIRED CHARACTERISTICS</b>
<b>Pneumatic Control Unit</b>	System must as a standard have EI Ionisation voltage must be adjustable between 0-70 eV or fix 70 eV
	Inlets and Detectors available with Electronic Pneumatic Control or Electron multiplier detector on all gas flows (carrier, split, vent, makeup, and combustion gases)
<b>Autosampler</b>	Carry-over: not measurable after 4 solvent (min. 3) flushes
<b>Mass Spectrometer</b>	Ionisation modes: electron impact ionization – EI or equivalent SIM
	Diffusion pump, air cooled, providing a vacuum better than 2 mPa in the manifold, have at least 250 litre He/Second vacuum capacity
	The vacuum system of apparatus is to be constituted with a pre-pump and diffusion pump, the diffusion pumps capacity must be at least 70 litre/minute Helium
<b>Spectral Libraries</b>	<b>Databases-</b> MS software must include the time programmable acquisition segments to allow for changes between EI, CI and MS in a single analysis or programmable injection

**The former text in Item:**

**3.3 GC/MS GAS CHROMATOGRAPH MASS SPECTROMETERS**

**Quantity : 2**



PARAMETER	MINIMUM REQUIRED CHARACTERISTICS
STANDARD SOFTWARE	MS software must include the time programmable acquisition segments to allow for changes between EI, CI and MS in a single analysis
Additional Items	The vacuum system of apparatus is to be constituted with a pre-pump and diffusion pump.

Shall read as new text:

### 3.3 GC/MS GAS CHROMATOGRAPH MASS SPECTROMETERS

Quantity : 2

PARAMETER	MINIMUM REQUIRED CHARACTERISTICS
STANDARD SOFTWARE	MS software must include the time programmable acquisition segments to allow for changes between EI, CI and MS in a single analysis or programmable injection
Additional Items	The vacuum system of apparatus is to be turbo pump

The former text in Item:

### 3.5 HPLC LIQUID CHROMATOGRAPH

Quantity : 1

PARAMETER	MINIMUM REQUIRED CHARACTERISTICS
Isocratic Pump	The pump should be able to mix 4 mobile phases according to the program, made in low pressure and should pump the mixture to the system according to the flow rate and pressure set in the software.
Floow precision	+/- 0.3% (RSD<01%)
Maximum pressure	400 bar
The autosampler should have the specifications	Injection reproducibility : RSD<0.3% (10µl injection)

below	
Technical specifications of Photo Diode array detector system should be as follows	
Flow Cell volume	8 µl
Light source	Deuterium, Tungsten, Deuterium+ Tungsten (3 modes)

**Shall read as new text:**

### 3.5 HPLC LIQUID CHROMATOGRAPH

**Quantity : 1**

PARAMETER	MINIMUM REQUIRED CHARACTERISTICS
Quaternary pump	The pump should be able to mix 4 mobile phases according to the program, made in low pressure and should pump the mixture to the system according to the flow rate and pressure set in the software.
Flow precision	+/- 0.5% (RSD<01%)
Maximum pressure	min. 345
The autosampler should have the specifications below	Injection reproducibility : RSD<0.5% (10µl injection)
Technical specifications of Photo Diode array detector system should be as follows	
Flow Cell volume	min 8µl
Light source	Deuterium, Tungsten, Deuterium+ Tungsten (3 modes)or Deuterium pre-aligned

**The former text in Item:**

### 3.6 GC/MS GAS CHROMATOGRAPHY & MASS SPECTROMETER

**Quantity : 1**

<b>PARAMETER</b>	<b>MINIMUM REQUIRED CHARACTERISTICS</b>
<b>Gas Chromatograph should have the following specifications</b>	All the gas flows used in instrument (carrier, detector, make-up) and split/purge exits should be totally automatic flow controller.
	The temperature programming steps should be up to 20.
	Detection limit should be less than 3pgC/sec.
<b>Mass Spectrometer should have the specifications below</b>	Quadropole mass analyser's mass range should be minimum 1.5 M/z-1024 M/z.
	Scanning rate should be 6750 u/sec.
	On the instrument, there should be full scan, selected ion monitoring (SIM scan modes as a standard, In SIM mode should be have 64 channels x 64 groups.
Sensitivity should have the specifications below	EI SIM sensitivity: 100fg octafluoronaphtelene m/z: 272 S/N >60

**Shall read as new text:**

**3.6 GC/MS + FID GAS CHROMATOGRAPHY & MASS SPECTROMETER**

**Quantity : 1**

PARAMETER	MINIMUM REQUIRED CHARACTERISTICS
<b>Gas Chromatograph should have the following specifications</b>	All the gas flows used in instrument (carrier, detector, make-up) and split/purge exits should be totally automatic flow controller or electronic pneumatic control..
	The temperature programming steps should be min. 6.
	Detection limit should be less than 5 pgC/sec.
<b>Mass Spectrometer should have the specifications below</b>	Quadropole mass analyser's mass range should be minimum 1.6 M/z-800 M/z.
	Scanning rate should be 6250 u/sec.
	On the instrument, there should be full scan, selected ion monitoring (SIM scan modes as a standard, In SIM mode should be have 50 channels x 30 (min. 50 channels x 30 ) groups.
Sensitivity should have the specifications below	EI SIM sensitivity: 20fg octafluoronaphtelene m/z: 272 S/N :10/1

**The former text in Item:**

**3.7 HPLC/MS LIQUID CHROMATOGRAPHY MASS SPECTROMETER**

**Quantity : 1**

PARAMETER	MINIMUM REQUIRED CHARACTERISTICS
<b>Isocratic Pump</b>	
<b>Flow precision</b>	+/- 0.3% (RSD<01%)
<b>Maximum pressure</b>	400 bar

<b>Technical specifications of Photo Diode array detector system should be as follows</b>	
<b>Flow Cell volume</b>	8 µl
<b>Light source</b>	Deuterium, Tungsten, Deuterium+ Tungsten (3 modes)
<b>The mass spectrometer should have the specifications below</b>	For high stability and ion-transmission efficiency, the instrument should have transfer ion optics which are "square" quadropole and octapole lens, Inter-octapole lens and which improves injection of ions into mass analyzer.
	Vacuum system should contain two turbo molecular pumps and one rotary pump.

**Shall read as new text:**

**3.7 HPLC/MS LIQUID CHROMATOGRAPHY MASS SPECTROMETER**

**Quantity : 1**

<b>PARAMETER</b>	<b>MINIMUM REQUIRED CHARACTERISTICS</b>
<b>Quarternary Pump</b>	
<b>Flow precision</b>	+/- 0.5% (RSD<01%)
<b>Maximum pressure</b>	min. 345 bar
<b>Technical specifications of Photo Diode array detector system should be as follows</b>	
<b>Flow Cell volume</b>	Min 8 µl
<b>Light source</b>	Deuterium, Tungsten, Deuterium+ Tungsten (3 modes), Deuterium pre-aligned
<b>The mass spectrometer should have the specifications below</b>	For high stability and ion-transmission efficiency, the instrument should have transfer ion optics which are "square" quadropole and octapole lens, Inter-octapole lens, hexapole ion optics and which improves injection of ions into mass analyzer.

	Vacuum system should contain one turbo molecular pumps and one rotary pump.
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**The former text in Item:**

**3.8 GC GAS CHROMATOGRAPH SYSTEM**

**Quantity : 1**

<b>PARAMETER</b>	<b>MINIMUM REQUIRED CHARACTERISTICS</b>
	The system should consist of one Gas Chromatography system including split/splitless injection port, autosampler EI (Electron Impact) mode as standard, Negative Chemical Ionization (NCI), Computer System, software
<b>Gas Chromatograph should have the following specifications</b>	All the gas flows used in instrument (carrier, detector, make-up) and split/purge exits should be totally automatic flow controller.
	The temperature programming steps should be up to 20.
<b>The FID (Flame ionization detector) detector of the instrument should have the features below;</b>	Detection limit should be less than 3pgC/sec.

**Shall read as new text:**

**3.8 GC-FID GAS CHROMATOGRAPH SYSTEM**

**Quantity : 1**

<b>PARAMETER</b>	<b>MINIMUM REQUIRED CHARACTERISTICS</b>
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	The system should consist of one Gas Chromatography system including split/splitless injection port, autosampler EI (Electron Impact) mode as standard, Computer System, software
<b>Gas Chromatograph should have the following specifications</b>	All the gas flows used in instrument (carrier, detector, make-up) and split/purge exits should be totally automatic flow controller or electronic pneumatic control.
	The temperature programming steps should be min. 6.
<b>The FID (Flame ionization detector) detector of the instrument should have the features below;</b>	Detection limit should be less than 5pgC/sec.

**The former text in Item:**

**3.10 HPLC MS/MS**

**Quantity: 1**

<b>PARAMETER</b>	<b>MINIMUM REQUIRED CHARACTERISTICS</b>
<b>Technical Specifications of LCMS/MS system</b>	The quadropole mass analysers should be perpendicular to each other in order to provide high efficiency and sensitivity.
	The system should have HyberQuad mass analysers to provide satisfactory resolution and sensitivity
<b>Quaternary gradient pump</b>	Maximum pressure : 400 bar
<b>The autosampler should have the specifications below</b>	Sample capacity : 200 sample ( standard) 1.8 ml vials
	Sample tray temperature : 0 – 60°C
	Column temperature : 5 – 95°C
<b>Vials and microtitres which can be used</b>	5 x 40 sample 2 ml vial tray (200 sample capacity)

<b>Technical specifications of Photo Diode array detector system should be as follows</b>	Flow Cell length : 5 cm
	Flow Cell volume : 10 µl
	Light source : Deuterium, Tungsten

**Shall read as new text:**

**3.10 HPLC MS/MS**

**Quantity: 1**

<b>PARAMETER</b>	<b>MINIMUM REQUIRED CHARACTERISTICS</b>
<b>Technical Specifications of LCMS/MS system</b>	The quadropole mass analysers should be perpendicular or linear to each other in order to provide high efficiency and sensitivity.
	The system should have triple quadrupole mass analysers to provide satisfactory resolution and sensitivity
<b>Quaternary gradient pump</b>	Maximum pressure : min. 345 bar
<b>The autosampler should have the specifications below</b>	Sample capacity : 120 sample ( min. 100 sample capacity) 1.8 ml vials
	Sample tray temperature : 4 – 40°C
	Column temperature : 5 – 90°C
<b>Vials and microtitres which can be used</b>	120 sample 2 ml vial tray (min. 100 sample capacity)
<b>Technical specifications of Photo Diode array detector system should be as follows</b>	Flow Cell length : 10 mm
	Flow Cell volume : min 8 µl
	Light source : Deuterium (deuterium pre-aligned) or Tungsten

**The former text in Item:**



**3.11 GC MS/MS GAS CHROMATOGRAPHY & MASS SPECTROMETER SYSTEM****Quantity : 1**

<b>PARAMETER</b>	<b>MINIMUM REQUIRED CHARACTERISTICS</b>
	The system should consist of one Gas Chromatography system including split/split less injection port, FID detector , liquid autosampler, 1 GCMS-MS system that has EI (Electron Impact) mode as standard, Positive and negative CI(Chemical Ionization), 2 SSL injection module, NIST and Wiley Libraries, Computer System, software
<b>Gas Chromatography should have the following specifications</b>	The system should consist a Gas Chromatograph, including a gas sampling valve, a switching valve, FID, detector, Headspace Autosampler and necessary columns.
<b>The specifications of units should be as follows</b>	10. The column oven should be heated by seven temperature steps and heating rate should be adjusted between 0.1-120°C/min

**Shall read as new text:****3.11 GC MS/MS GAS CHROMATOGRAPHY & MASS SPECTROMETER SYSTEM****Quantity : 1**

<b>PARAMETER</b>	<b>MINIMUM REQUIRED CHARACTERISTICS</b>
	The system should consist of one Gas Chromatography system including split/split less injection port, FID detector , liquid autosampler, 1 GCMS-MS system that has EI (Electron Impact) mode as standard, 2 SSL injection module, NIST and Wiley Libraries, Computer System, software
<b>Gas Chromatography should have the following specifications</b>	The system should consist a Gas Chromatograph, including a gas sampling valve, a switching valve, FID, detector, liquid Autosampler and necessary columns.
<b>The specifications of units should be as follows</b>	10. The column oven should be heated by seven temperature steps and heating rate should be adjusted between 0.1-100°C/min

**The former text in Item:**

**3.12 GC/MS SYSTEM****Quantity : 1**

<b>PARAMETER</b>	<b>MINIMUM REQUIRED CHARACTERISTICS</b>
<b>The specifications of GC unit should be as follows</b>	4. The instrument should have memory to save ten methods/parameters permanently and all methods and parameters should not be affected by electricity cut-off.
	9. The column oven should be heated up to +450°C from a few degrees above ambient temperature and optionally it should be cooled down to -99°C by cooling unit.
	<b>The autosampler should be supplied with the followings</b> 105 positions sample tray
<b>The GCMS specifications should be as follows</b>	2. Mass range should be minimum 2 to 1023 amu.
	8. The detector should be long life dual dynode off-axis photo multiplier with high-energy conversion dynode and should be automatically changed from positive to negative.

**Shall read as new text:****3.12 GC/MS SYSTEM****Quantity : 1**

<b>PARAMETER</b>	<b>MINIMUM REQUIRED CHARACTERISTICS</b>
<b>The specifications of GC unit should be as follows</b>	4. The instrument should have memory to save nine (min. 9) methods/parameters permanently and all methods and parameters should not be affected by electricity cut-off.
	9. The column oven should be heated up to +400°C from a few degrees above ambient temperature and optionally it should be cooled down to -80°C (min. -80°C) by cooling unit.



**3.13. HPLC MS - LIQUID CHROMATOGRAPH MASS SPECTROMETER**

**Quantity : 1**

<b>PARAMETER</b>	<b>MINIMUM REQUIRED CHARACTERISTICS</b>
	5. In order to prevent contamination the ion source should have cleaning capability.
	11. The vacuum system should have one turbomolecular pump with the capacity of 210 L and 60 L, for ion source and analyser.
<b>Quaternary gradient pump</b>	Degasser unit should be quaternary gradient and it may be a separate unit.
<b>The autosampler should have the specifications below</b>	Sample capacity : 100 sample ( min. 100 sample capacity) 1.8 ml vials
	Sample tray temperature : min. 4-40 °C
	Column temperature : +5 to +90°C
<b>Technical specifications of Photo Diode array detector system should be as follows</b>	Flow Cell length : 1 cm
	Noise : +/- 1x10 <sup>-5</sup> AU/cm ( 254 nm)

**The former text in Item:**

**3.14 GC MS - GAS CHROMATOGRAPH & MASS SPECTROMETER**

**Quantity : 1**

<b>PARAMETER</b>	<b>MINIMUM REQUIRED CHARACTERISTICS</b>
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<b>Gas Chromatograph should have the following specifications</b>	All the gas flows used in instrument (carrier, detector, make-up) and split/purge exits should be totally automatic flow controller.
	The temperature programming steps should be up to 20.
	The FID (Flame ionization detector) detector of the instrument should have the features below: Detection limit should be less than 3pgC/sec.
<b>Mass Spectrometer should have the specifications below</b>	Quadropole mass analyser's mass range should be minimum 1.5 M/z-1024 M/z. Scanning rate should be 6750 u/sec.
	EI SIM sensitivity: 100fg octafluoronaphtelene m/z: 272 S/N >60
	On the instrument, there should be full scan, selected ion monitoring (SIM scan modes as a standard, In SIM mode should be have 64 channels x 64 groups.

**Shall read as new text:**

**3.14 GC MS +FID GAS CHROMATOGRAPH & MASS SPECTROMETER                      Quantity : 1**

<b>PARAMETER</b>	<b>MINIMUM REQUIRED CHARACTERISTICS</b>
<b>Gas Chromatograph should have the following specifications</b>	All the gas flows used in instrument (carrier, detector, make-up) and split/purge exits should be totally automatic flow controller or electronic pneumatic control.

	The temperature programming steps should be min. 6.
	The FID (Flame ionization detector) detector of the instrument should have the features below: Detection limit should be less than 5 pgC/sec.
<b>Mass Spectrometer should have the specifications below</b>	Quadropole mass analyser's mass range should be minimum 1.6 M/z-800 M/z. Scanning rate should be 6250 u/sec.
	EI SIM sensitivity: 20fg octafluoronaphtelene m/z: 272 S/N :10/1
	On the instrument, there should be full scan, selected ion monitoring (SIM scan modes as a standard, In SIM mode should be have 50 channels x 30 (min. 50 channels x 30 ) groups.

**The former text in Item:**

**3.15 MICROWAVE DIGESTION SYSTEM Quantity : 1**

<b>Properties</b>	
	1500 watt 220-240V 50-60 Hz

**Shall read as new text:**

**3.15 MICROWAVE DIGESTION SYSTEM Quantity : 1**

PARAMETER	MINIMUM REQUIRED CHARACTERISTICS
Properties	1400 watt 220-240V 50-60 Hz

All terms regarding this item should be referred to microwave digestion system throughout the tender dossier.

**The former text in Item:**

**3.16. HPLC MS - LIQUID CHROMATOGRAPH MASS SPECTROMETER Quantity : 1**

PARAMETER	MINIMUM REQUIRED CHARACTERISTICS
	5. In order to prevent contamination the ion source should have self-cleaning capability.
	11. The vacuum system should have two-turbomolecular pump with the capacity of 210 L and 60 L, for ion source and analyser.
<b>Quaternary gradient pump</b>	Degasser unit should be quaternary gradient and it should not be a separate unit.
<b>The autosampler should have the specifications below</b>	Sample capacity : 200 sample ( standard) 1.8 ml vials
	Sample tray temperature : 0 - +60°C
	Column temperature : +5 – +95°C
<b>Technical specifications of Photo Diode array detector system should be as follows</b>	Flow Cell length : 5 cm
	Noise : +/- 0.3x10 <sup>-5</sup> AU/cm ( 254 nm)

Shall read as new text:

3.16. HPLC MS - LIQUID CHROMATOGRAPH MASS SPECTROMETER

Quantity : 1

PARAMETER	MINIMUM REQUIRED CHARACTERISTICS
	5. In order to prevent contamination the ion source should have cleaning capability.
	11. The vacuum system should have one turbomolecular pump with the capacity of 210 L and 60 L, for ion source and analyser.
<b>Quaternary gradient pump</b>	Degasser unit should be quaternary gradient and it may be a separate unit.
<b>The autosampler should have the specifications below</b>	Sample capacity : 100 sample ( min. 100 sample capacity) 1.8 ml vials
	Sample tray temperature : min. 4-40 °C
	Column temperature : +5 – +90°C
<b>Technical specifications of Photo Diode array detector system should be as follows</b>	Flow Cell length : 1 cm
	Noise : +/- 1x10 <sup>-5</sup> AU/cm ( 254 nm)

The former text in Item:

3.17 HPLC

Quantity : 1

PARAMETER	MINIMUM REQUIRED CHARACTERISTICS
<b>Quaternary gradient pump: (**Important)</b>	Maximum pressure : 400 bar
<b>The autosampler should have the specifications below</b>	Sample capacity : 200 sample ( standard) 1.8 ml vials
	Sample tray temperature : 0 - +60°C



	Column temperature : 5 – +95°C
	Vials and microtitres which can be used; 5 x 40 sample 2 ml vial tray ( 200 sample capacity) 3 x 96 or 384 microtitre tray
<b>Technical specifications of Photo Diode array detector system should be as follows</b>	Flow Cell length : 5 cm ( *** important)
	Flow Cell volume : 10 µl
	Noise : +/- 0.3x10 <sup>-5</sup> AU/cm (254 nm)
	Light source : Deuterium, Tungsten and/or Deuterium+ Tungsten ( 3 mode)

Shall read as new text:

<b>3.17 HPLC</b>	<b>Quantity : 1</b>
<b>PARAMETER</b>	<b>MINIMUM REQUIRED CHARACTERISTICS</b>
<b>Quaternary gradient pump: (**Important)</b>	Maximum pressure : min. 345 bar
<b>The autosampler should have the specifications below</b>	Sample capacity : 120 sample ( minimum 100 ) ( standard) 1.8 ml vials
	Sample tray temperature : 4 - +40°C
	Column temperature : 5 – +90°C
	Vials and microtitres which can be used; 2 ml vial tray 120 sample ( minimum 100 ) 3 x 96 or 384 microtitre tray
<b>Technical specifications of Photo Diode array detector system should be as follows</b>	Flow Cell length : 10 mm
	Flow Cell volume : min.8 µl
	Noise : +/- 1,5x10 <sup>-5</sup> AU/cm (254 nm)
	Light source : Deuterium, Tungsten and/or Deuterium+ Tungsten ( 3 mode) or pre deuterium pre-aligned

**The former text in Item:**

**3.19 MICROWAVE ASHING OVEN                      Quantity : 1**

<b>PARAMETER</b>	<b>MINIMUM REQUIRED CHARACTERISTICS</b>
<b>Properties</b>	1500 watt 220-240V 50-60 Hz

**Shall read as new text:**

**3.19 MICROWAVE ASHING OVEN                      Quantity : 1**

<b>PARAMETER</b>	<b>MINIMUM REQUIRED CHARACTERISTICS</b>
<b>Properties</b>	1400 watt 220-240V 50-60 Hz

All terms regarding this item should be referred to microwave digestion system throughout the tender dossier.

All other terms and conditions of the Tender dossier remain unchanged. The above alterations and / or corrections to the tender dossier are integral part of the Tender Dossier.