

General Terms & Conditions

1. Tender documents can be obtained against cash payment/ DD(in favour of Director, MITS, Gwalior payable at Gwalior) only of cost of tender form, i.e. Rs. 1000/-(Non- refundable) on or before 13/10/2018 up to **03:00 PM** from the Institute during working hours.
2. **The tender documents directly downloaded from the website, must be attached with a Demand draft of the tender cost in favour of Director, MITS, Gwalior payable at Gwalior.** (web site: www.mitsgwalior.in)
3. Earnest money deposit (EMD) of Rs 12000/- is to be submitted along with the completed tender form duly sealed in 1st cover. The EMD shall be in the form of demand Draft/Pay order in favour of the **Director, MITS, Gwalior,** payable at Gwalior.
4. Eligibility criteria for applying for the tender.
 - i. Valid VAT and Commercial Tax registration for the similar work on the date of application.
 - ii. PAN & TIN NumberThese certificates are to be put inside the 1st envelope.
The tenders shall submit the tender in two sealed envelopes *marked as 1st and 2nd*. **The first envelope should contain the EMD, and copies of all relevant documents pertaining to eligibility criteria and second envelope should contain the tender form of the price bid.** In case, the 1st cover is not annexed for eligibility criteria in the proper form as mentioned above in clause (4), and/or is without EMD, the envelope marked 2nd will not be opened at all and the same will be rejected and no representation shall be entertained in this regard. *These two envelopes are to be put inside the third separate envelop.*
5. **All sealed cover envelopes** must be super scribed “MODROB project on Advance Refrigeration and Air Conditioning Laboratory under AICTE” *with Red Ink on the top of envelop.*
6. The last date & time of submission of tender is, (on or before) 13/10/2018 up to **03:00PM.**
7. Tender will be opened on 13/10/2018 **04:00 PM.** The second envelope of only **the eligible tenderers** will be opened on the same day.
8. The amount of earnest money deposited in respect of the successful tenders shall be converted into security deposit. The earnest money of unsuccessful tender will be refunded on demand. No interest shall be paid by the institute on Earnest money Or security deposit. The Security deposit shall be refunded after satisfactory completion of supply.
9. Telegraphic/Fax and conditional tenders shall not be accepted.
10. Director, MITS, Gwalior, reserves the rights to accept or reject any or all tenders without assigning any reason thereof.
11. The rates should be F.O.R. at site (Institute Premises) and no extra charges on this account (for octroi, VAT, and surcharge etc.) shall be payable to the suppliers.
12. M.I.T.S Gwalior Institute is exempted to pay excise duty.
13. **The rates should include all materials, labour charges, profit and relevant taxes, if any.**
14. The tenderer, whose tender is accepted, shall have to sign an agreement as per the given format.
15. Any amount due or becoming due for the tenders shall be covered from their bills.
16. The competent authority reserves the right to increase or decrease the quantity of any item of supply, during the currency of contract. The tenders will be bound to comply with the order of the competent authority without any claim and compensation.
17. The competent authority to dispose off the tenders will have the right of rejecting all or any part of the tender without assigning any reason; even the lowest tender does not necessarily qualify for the order.
18. The rates should be competitive and workable.
19. Any controversy will be subjected to disposal in Gwalior jurisdiction only.
20. The Income Tax and Commercial Tax shall be deducted from the bills as per the rules.
21. The whole supply should be satisfactorily executed within stipulated time from the date of issue of order. Time extension will not be permitted.
22. The tenders shall execute the work as per specifications mentioned in the supply order.
23. Before making any supply of any materials to the Institute, the tender shall get it approved by the competent authority or his representative; otherwise the supply shall not be approved. To check the rest of supply, he should submit the approved sample in our office, if items do not belong to reputed or registered make.
24. The tender should satisfy himself regarding the magnitude of the supply & no claim on this account shall be entertained.
25. Warranty period should be clearly specified as per the latest term and condition of the original manufacturers and the parts and labour costs are to be included for the full warranty period.
26. The warranty period will be considered from the date of supply of the items.
27. **Manuals and A certificate of calibration should be supply with the equipments.**
28. A duly constituted committee of the Institute may inspect the supply made by the tender at other place. The committee may also inspect infrastructure of those applicants who qualify the eligibility criteria in clause- 4, for satisfaction.
29. M.I.T.S. Gwalior will have the right to check the samples before supply.
30. Payment will be made after the successful and satisfactory supply and installations of systems.

DIRECTOR

I have studied the above general conditions of contract and shall abide by them.

Date:

Signature of the Bidder with Seal

ANNEXURE-1

DETAILS OF EARNEST MONEY DEPOSIT

To

The Director
MITS Gwalior

Subject :- Earnest Money Deposit (EMD) for the Tender of _____

Respected Sir,

I / We _____ (hereinafter referred to as the Tenderer) being desirous of Biding for the work under the above mentioned Tender document and having fully understood the nature of the work and having carefully noted all the terms and conditions, specifications etc., as mentioned in the Tender document.

I/We feel an immense pleasure to quote our most competitive rates herewith duly signed by me / us. I/We have quoted separately for the systems and the Earnest Money Deposit/s has been submitted separately in Envelop-1.

EMD details :-

Amount (Rs.) : _____

Instrument Number : _____

Date of Issuance : _____

Name of the Bank : _____

Place : (Signature of Tenderer)

Name : _____

Designation : _____

Date : Seal :

Signature of the Bidder with Seal

ANNEXURE-2

TENDERER'S GENERAL INFORMATION

To

The Director

MITS Gwalior

Race Course Road Gwalior

Subject: - Tender of

1) Name of Tenderer _____

2) Status of Firm _____

3) Number of Years in Operation _____

4) Registered Address _____

5) Operating Address _____

(If different from above) _____

6) Telephone Number _____

(Area Code)

(Number)

7) E-mail Address & Web Site _____

8) Tele-Fax Number _____

(Area Code)

(Number)

9) PAN (Number) _____

(Enclosed Copy of "PAN CARD")

10) Service Tax Number _____

(Enclosed copy of "Service Tax Registration Certificate")

(Signature of Tenderer)

Date : _____ Name : _____

Designation : _____

Place : _____ Seal :

Signature of the Bidder with Seal

ANNEXURE-3

TECHINICAL BID

NAME OF WORK: Purchasing of equipments for MODROB project “Advance Refrigeration and Air Conditioning Laboratory”under AICTE.

We confirm the following technical specification.

A. Vapour Compression Refrigeration Trainer:

S.No	Equipments	Specifications
1.	Compressor	Hermetically Sealed Reciprocating type Capacity 1/3 Ton
2.	Refrigerant	R-134-A
3.	Agitator	Compatible capacity
4.	Condenser	Air cooled compatible to compressor
5.	Condenser Cooling Fan	Compatible capacity with permanent lubricated motor
6.	Evaporator	Material Stainless Steel, Insulated with ceramic wool/P.U.F
7.	Rotameter	Make: Eureka, Range (6-60) LPH
8.	Pressure Gauges	2 Nos. (For suction & discharge pressure)
9.	Expansion Device	Capillary Tube
10.	Flowmeter	Glass Tube Rotameter for Refrigerant Flow
11.	Pressure gauge	0 to 300 PSI
12.	Compound gauge	-30 to 150 PSI
13.	Electric Heater	Capacity 1 kW
14.	Digital Voltmeter	Range 0-500 V AC
15.	Digital Ammeter	Range 0-5 A AC
16.	Safety Control	Overload and over current protectors for compressor and Time delay circuit with Low/high voltage auto-cut.
17.	Temperature Sensors :	RTD PT-100 type

Signature of the Bidder with Seal

B. Direct and Indirect AC Trainer

S.No	Equipments	Specifications
1.	Compressor	Reciprocating sealed compressor 15000 kcal/hr
2.	Condenser	Air cooled
3.	Expansion device	Thermostatic expansion valve with capillary
4.	Low & high pressure cut-out switch	
5.	Humidity control system for making the change in the humidity condition	
6.	Gauge digital type pressure and compound 30-0-150 and 0-500 psi and kg/cm ²	
7.	Digital temperature meter with sensor lead	
8.	Hand shut off valve ¼ “ x ¼”	
9.	Hand shut off valve ½”	
10.	Solid core filter drier	
11.	Liquid Line indicator	
12.	Ampere meter square digital type 0-30 Amp.	
13.	Volt meter square digital type 0-500 V	
14.	Energy meter digital type	
15.	MCB Four pole 32 ampere	
16.	Suction Accumulator, System charged with Refrigerant operated On Three Phase Supply	

C. Air-Conditioning Test Rig

S.No	Equipments	Specifications
1.	Compressor	Hermitically Sealed Compressor. Capacity 1 Ton, Kirlosker make.
2.	Electric Supply	Single Phase, 220 V AC, 50 Hz., 10 Amp.
3.	Temperature Sensor	RTD PT-100 Type
4.	Expansion Device	Capillary Tube compatible capacity
5.	Pressure Gauges	1 Nos. Suction Gauge 1 No
6.	Condenser	Air-Cooled Compatible to 1 Ton Compressor
7.	Digital Ammeter	0-5 Amp

Signature of the Bidder with Seal

8.	Digital Voltmeter	0-300 V
9.	Temperature Measurement	Digital Temperature Indicator with multi-channel switch.
10.	Condenser Cooling Fan	Compatible capacity with permanent lubricated motor.
11.	Evaporator	Compatible to 1 Ton, made of copper tube and aluminium fins fitted with compatible capacity fan
12.	Safety Control	Over load and over current protection for Compressor with Time delay circuit.

D. Refrigeration Fault Simulator

S.No	Specifications
1.	Bench top unit for fault simulation and fault finding on the electrical connection of a refrigerant compressor
2.	Refrigerant compressor
3.	All relevant components arranged on front panel
4.	Fault simulation using push buttons
5.	External multimeter for fault finding
6.	Starting and running protection devices fitted in transparent switch box
7.	Circuit diagram printed on front panel
8.	230V, 50Hz, 1 phase
9.	Refrigerant compressor for R22
10.	Refrigerating capacity: 1679W
11.	Power consumption: 584W
12.	Voltage DC: 200mV...1000V DC
13.	Voltage AC: 200mV...700V AC
14.	hp Laptop (4GB RAM and 1TB Hard disk)
15.	hp Printer

E. Cold Storage Trainer

S.No	Equipment	Specification
1.	Compressor	Hermetically sealed 1/3rd HP capacity
2.	Condenser	Air cooled, 1/3HP, Size: 12" x 13" x 2 rows
3.	Expansion Device	Capillary & Thermostatic Expansion valve
4.	Hand shut off valves	1/4" & 3/8"
5.	Energy meter	2.5 – 5 amps

F. Convective Heat Transfer Equipment (Forced Convection Apparatus)

S.No	Equipment
1.	Diameter of Pipe : 30-40 mm
2.	Length of test section: 400-500 mm
3.	Orificemeter
4.	Number of Thermocouples : 6 for Pipe surface and 2 for Air
5.	Nichrome Heater
6.	Blower: 0.5 Hp with Motor

G. Ductable Air-Conditioner Test Rig

Specifications:

1. Working power supply: AC 220V \pm 10% 50Hz
2. Capacity: & 1Tonne;1KW
3. Refrigerant type: R22/Ecofriendly

H. Cut section of various transmission and control systems.

Cut models of various transmission and control systems used in refrigeration and air conditioning, mounted on a board/ kit.

ANNEXURE - 4

FINANCIAL BID

NAME OF WORK: Purchasing of equipments for MODROB project “Advance Refrigeration and Air Conditioning Laboratory” under AICTE.

A. Vapour Compression Refrigeration Trainer:

S.No	Equipments	Specifications	Unit Price in Rs (Including All Taxes)	
			In figure	In figure
1.	Compressor	Hermetically Sealed Reciprocating type Capacity 1/3 Ton		
2.	Refrigerant	R-134-A		
3.	Agitator	Compatible capacity		
4.	Condenser	Air cooled compatible to compressor		
5.	Condenser Cooling Fan	Compatible capacity with permanent lubricated motor		
6.	Evaporator	Material Stainless Steel, Insulated with ceramic wool/P.U.F		
7.	Rotameter	Make: Eureka, Range (6-60) LPH		
8.	Pressure Gauges	2 Nos. (For suction & discharge pressure)		
9.	Expansion Device	Capillary Tube		
10.	Flowmeter	Glass Tube Rotameter for Refrigerant Flow		
11.	Pressure gauge	0 to 300 PSI		
12.	Compound gauge	-30 to 150 PSI		
13.	Electric Heater	Capacity 1 kW		
14.	Digital Voltmeter	Range 0-500 V AC		
15.	Digital Ammeter	Range 0-5 A AC		
16.	Safety Control	Overload and over current protectors for compressor and Time delay circuit with Low/high voltage auto-cut.		
17.	Temperature Sensors :	RTD PT-100 type		

Signature of the Bidder with Seal

B. Direct and Indirect AC Trainer

S.No	Equipments & Specifications	Unit Price in Rs (Including All Taxes)	
		In figure	In figure
1.	Compressor Reciprocating sealed compressor 15000 kcal/hr		
2.	Condenser Air cooled		
3.	Expansion device Thermostatic expansion valve with capillary		
4.	Low & high pressure cut-out switch		
5.	Humidity control system for making the change in the humidity condition		
6.	Gauge digital type pressure and compound 30-0-150 and 0-500 psi and kg/cm ²		
7.	Digital temperature meter with sensor lead		
8.	Hand shout off valve ¼ “ x ¼”		
9.	Hand shout off valve ½”		
10.	Solid core filter drier		
11.	Liquid Line indicator		
12.	Ampere meter square digital type 0-30 Amp.		
13.	Volt meter square digital type 0-500 V		
14.	Energy meter digital type		
15.	MCB Four pole 32 ampere		
16.	Suction Accumulator, System charged with Refrigerant operated On Three Phase Supply		

Signature of the Bidder with Seal

C. Air-Conditioning Test Rig

S.No	Equipments	Specifications	Unit Price in Rs (Including All Taxes)	
			In figure	In figure
1.	Compressor	Hermitically Sealed Compressor. Capacity 1 Ton, Kirlosker make.		
2.	Electric Supply	Single Phase, 220 V AC, 50 Hz., 10 Amp.		
3.	Temperature Sensor	RTD PT-100 Type		
4.	Expansion Device	Capillary Tube compatible capacity		
5.	Pressure Gauges	1 Nos. Suction Gauge 1 No		
6.	Condenser	Air-Cooled Compatible to 1 Ton Compressor		
7.	Digital Ammeter	0-5 Amp		
8.	Digital Voltmeter	0-300 V		
9.	Temperature Measurement	Digital Temperature Indicator with multi-channel switch.		
10.	Condenser Cooling Fan	Compatible capacity with permanent lubricated motor.		
11.	Evaporator	Compatible to 1 Ton, made of copper tube and aluminium fins fitted with compatible capacity fan		
12.	Safety Control	Over load and over current protection for Compressor with Time delay circuit.		

D. Refrigeration Fault Simulator

S.No	Specifications	Unit Price in Rs (Including All Taxes)	
		In figure	In figure
1.	Bench top unit for fault simulation and fault finding on the electrical connection of a refrigerant compressor		
2.	Refrigerant compressor		
3.	All relevant components arranged on front panel		
4.	Fault simulation using push buttons		
5.	External multimeter for fault finding		
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8.	230V, 50Hz, 1 phase		
9.	Refrigerant compressor for R22		
10.	Refrigerating capacity: 1679W		
11.	Power consumption: 584W		
12.	Voltage DC: 200mV...1000V DC		
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14.	hp Laptop (4GB RAM and 1TB Hard disk)		
15.	hp Printer		

E. Cold Storage Trainer

S.No	Equipment	Specification	Unit Price in Rs (Including All Taxes)	
			In figure	In figure
1.	Compressor	Hermetically sealed 1/3rd HP capacity		
2.	Condenser	Air cooled, 1/3HP, Size: 12" x 13" x 2 rows		
3.	Expansion Device	Capillary & Thermostatic Expansion valve		
4.	Hand shut off valves	1/4" & 3/8"		
5.	Energy meter	2.5 – 5 amps		

Signature of the Bidder with Seal

F. Convective Heat Transfer Equipment (Forced Convection Apparatus)

S.No	Equipment	Unit Price in Rs (Including All Taxes)	
		In figure	In figure
1.	Diameter of Pipe : 30-40 mm		
2.	Length of test section: 400-500 mm		
3.	Orificemeter		
4.	Number of Thermocouples : 6 for Pipe surface and 2 for Air		
5.	Nichrome Heater		
6.	Blower: 0.5 Hp with Motor		

S.No	Equipment	Unit Price in Rs (Including All Taxes)	
		In figure	In figure
G.	Ductable Air-Conditioner Test Rig		

S.No	Equipment	Unit Price in Rs (Including All Taxes)	
		In figure	In figure
H.	Cut section of various transmission and control systems.		

Signature of the Bidder with Seal