

**E-Tender | Supply of Tools,
Equipment's and Machines for**

**A.P.V. ITC STRIVE
PROJECT IMC**

TENDER NO: APVPITC/STRIVE/TEN/2021-22/ 01

FOR THE YEAR

2021-2022

OFFICE

A.P.V. ITC STRIVE PROJECT IMC

117/H-1/209 Pandu Nagar Behind Kakadeo Thana Kanpur Nagar-208005
Phone 09839068120, E-Mail: shikhatrpathi250@gmail.com, Website: www.apviti.org

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A.P.V. ITC STRIVE PROJECT IMC

1. Tender Notice

Tender Notice

OFFICE
A.P.V. ITC STRIVE PROJECT IMC

117/H-1/209 Pandu Nagar Behind Kakadeo Thana Kanpur Nagar-208005

Invites online bids (Two bid system) from Manufacturers or
Authorized dealers for Supply of Tools, Equipment's and Machines for
A.P.V. ITC STRIVE PROJECT IMC as below:

Tender No	Description	Earnest Money Deposit	Bid Document Price
01	Tools & Equipment's	INR 10000	INR 00

- Online bidding go through [https:// www.apviti.org](https://www.apviti.org) and online e-tenders are invited as per key dates from **Manufacturers or their Authorized Dealers for Supply of Tools, Equipment's and Machines for A.P.V. ITC STRIVE PROJECT IMC**. Tender document and other details are also available at the websites <https://www.apviti.org>
- In all respect the soft copy And hardcopy of the Bids (Envelope-A along with Earnest money, and Envelope-B) must be received at the office of the undersigned latest by **3:00 PM on 05/02/2021** and will be opened ONLINE Technical Tender (Envelope-A) on the same day
i.e. **11/03/2021 at 4:00 PM**. In the presence of such tendered or their authorized representatives as may be present.
- All corrigendum/ amendments/changes if any will only be issued and made available only on [https:// www.apviti.org](https://www.apviti.org)

(SHIKHA TRIPATHI)

PRINCIPAL/SECRETARY
A.P.V. ITC STRIVE PROJECT IMC

Key Dates and Time

SN	Task	Date & Time
1.	ONLINE BID DOCUMENT PURCHASING END DATE	05/03/2021, 12:00 HRS
2.	BID CLOSING FOR SUBMISSION ON ONLINE BIDS	08/03/2021, 14:00 HRS
3.	SUBMISSION OF SOFT COPY and Hard Copy OF BIDS (Envelope – A along with EMD, and Envelope – B)	10/03/2021, 15:00 HRS
4.	ONLINE OPENING OF THE TECHNICAL BIDS (Envelope– A)	11/03/2021, 16:00 HRS
5.	ONLINE OPENING OF THE FINANCIAL BIDS (Envelope– C)	11/03/2021, 12:00 HRS

2. Tender Rules

Scope of Tender

The PRINCIPAL/SECRETARY, A.P.V. ITC STRIVE PROJECT IMC 117/H-1/209 PANDU NAGAR BEHIND KAKADEO THANA KANPUR NAGAR-208005

– U.P. (hereinafter referred as Tender Inviting Authority and/or Tender Acceptance Authority and/or Ordering Authority unless the context otherwise requires) Invites online bids (Two bid system) from Manufacturers or Authorized dealers for Supply of Tools, Equipment's and Machines for , A.P.V. ITC STRIVE PROJECT IMC 117/H-1/209 PANDU NAGAR BEHIND KAKADEO THANA KANPUR NAGAR-208005 – U.P. as below :

Tender No	Description	Earnest Money Deposit	Bid Document Price
01	Tools &Equipment's	INR 10000	INR 00

Eligibility Criterion

The Tenderer should fulfil the following eligibility criteria:

- The Tenderer should be Manufacturer or Authorized Dealer having relevant Licence of Manufacturer/ Authorized Dealer and such a Registration should be valid as on the date of Tender submission.
- The Tenderer should have achieved annual turnover as follows (every FY) in the last three financial years.

Tender No	Description	Minimum Annual Turnover
01	Tools &Equipment's	50 Lakhs

- The Tenderer (and tenderer's principal manufacturer, if tenderer is Authorized Dealer) should not be blacklisted either by the Tender Inviting Authority or by any State Government or by Government of India.
- The Manufacturer should be in the business of manufacturing of similar equipment for a period not less than 5 Years.
- The Tenderer must submit the Form –“A” on letterhead with signature & stamp. Annexure-1

Earnest Money Deposit (EMD)

- All tenders must be accompanied with Tender-wise EMD (Hard Copy) along with Technical (Physical) bid.
- The EMD should be submitted ONLINE by NEFT/IMPS in name of **A.P.V. ITC STRIVE PROJECT IMC**, Account no.- **695120110000464**, ifsc code- **BKID0006951**, BRANCH NAME- **KAUSHALPURI KANPUR NAGAR** . Earnest Money submitted in any other form will not be accepted and the tender will be rejected.
- Earnest Money/Security Deposit to this office in previous tenders will not be adjusted towards the present tender and no request will be entertained in this regard.

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- d) The EMD shall be refunded to the unsuccessful tenderer after finalization of the contract. It shall be refunded to the successful tenderer on receipt of the performance security deposit.
- e) The EMD will be forfeited, in case Tenderer withdraws its Tender during the validity of bids OR the successful bidder who fails to sign the contract agreement.

Validity of Tender

- a) The Tender will be valid for a period of 10 DAYS after the due date of submission of Tenders. A Tender valid for a shorter period shall be rejected by the Tender Inviting Authority as non-responsive
- b) In exceptional circumstances, prior to the expiration of the Tender validity, the Tender Inviting Authority may request the Tenderers to extend the Tender validity for further period as deemed fit. The request and the responses thereto shall be made in writing. A Tenderer may refuse the request without forfeiting its EMD. A Tenderer, agreeing to the request will not be required or permitted to modify its Tender.

Preparation and submission of Tender

- a) The Tender should be Computerised and every correction and interlineations in the bid should be attested with full signature by the tenderer, failing which the bid will be treated as ineligible. Corrections done with correction fluid should also be duly attested.
- b) Bidder should give all relevant particulars about every item, such as maker's name Country of Manufacture and Specifications and Price etc.
- c) Authorized dealer should submit the certificate from its manufacturer as proof to purchase supplied items from OEM.
- d) All documents/papers should be numbered, signed and sealed by the Tenderer on each page.
- e) The Tender is required to be prepared and submitted in two parts viz. 'Part A - Technical Bid' and 'Part B - Price Bid'.
- f) The '**Envelope of Part-A Technical Bid**' shall contain all essential documents for Technical Tender. Such documents attached as per Annexure-1 to (Online).
- g) The '**Envelope of Part-C- Financial Bid**' shall contain duly filled, stamped and signed Price Schedule in the format provided in Annexure – 3.
- h) The Online tenders as above should be submitted on shikhatripathi250@gmail.com as per Scheduled date and time.
- i) Tender submitted or received after the closing date and time will not be considered and shall not be considered.

Tender Prices

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- a) Tender has been called for in the names of Items. The Tenderers should quote the rates for the Items mentioned in tool & equipment and machinery as mention in dgt trade details all motor will be off copper & all tools equipment and machinery of brands.
- b) The Tenderer should mention the name of manufacturer of the item being quoted.
- c) The rates should be quoted in format of Price Schedule shown in **Annexure-5. Rates quoted in any other format tender will be rejected.**
- d) Rates inclusive of Excise Duty, Customs duty, transportation, insurance, and any incidental charges, but exclusive of State VAT/CST should be quoted for each of the required item, separately on door delivery basis (FOR Destination, at Stores) as per format of Price Schedule given in Annexure – 6.
- e) Quoted rates are valid up to one year from the date of signing of contract agreement and shall be firm during the currency of the contract.

Opening of Tenders

- a) The Tenders shall be opened at the scheduled date, time and venue by the committee constituted by the Tender Inviting Authority. The Tenderers' representative may attend the Tender opening.
- b) Technical Bid & financial bid shall be opened Online and Physical copy submitted by post to address of **A.P.V. ITC STRIVE PROJECT IMC 117/H-1/209 PANDU NAGAR BEHIND KAKADEO THANA KANPUR NAGAR-208005 UP-208005.**
- c) The date and time of opening of Price Bid shall be informed to all such Tenderers who qualify in technical Bid evaluation. The tenderer's representative may choose to attend the opening of Price Bid.
- d) In the event, the date of opening as above is declared government holiday; the tenders shall be opened at the same time on the next working day.

Evaluation of Tenders

- a) The purchase committee, constituted by the Tender Inviting Authority, shall evaluate the tender with reference to technical requirements and various other commercial criteria given in the Tender Document.
- b) Tendering agency reserved the right to the cancel; disqualify any tender despite being of low rate, if they not satisfied with the quality of products offered.

Placement of Purchase Orders and Delivery Requirements

- a) The Tender Inviting Authority shall place individual Purchase Orders for supply of Items the period of 15 days from the date of award of contract with successful Tenderer (s). Tender Inviting Authority reserves the right to extend the validity of purchase order further by 01 months on the same rates and terms & conditions of the contract.
- b) The supplier should complete the supply at the **A.P.V. ITC STRIVE PROJECT IMC 117/H-1/209 PANDU NAGAR BEHIND KAKADEO THANA KANPUR NAGAR-208005** within 20 days from the date of issue of purchase order.
- c) If at any time the Tendered has, in the opinion of the Tender inviting authority, delayed the supply of Items due to one or more reasons related to force Majeure events such as riots, mutinies, wars, fire, storm, tempest or other exceptional events, the time for supplying the Items may be extended by the Tender inviting authority/ordering authority at its discretion for such period as may be considered reasonable. However such extension shall be considered only if a specific written request is made by the Tendered within 7 days from the occurrence of such event. The exceptional cause does not include scarcity of raw material, power cut and labour disputes.
- d) The undersigned reserves the rights for any changes/cancellation/rejection of any part or whole tender, without assigning any reason what so ever.
- e) **Warrantee/Guarantee should be for a period of minimum 5 year.**
- f) All consignment must be dispatched freight paid to concern ITI "To pay" Railway Receipt/Freight Receipts will not be accepted. Loading /Unloading charges shall be borne by the supplier.
- g) It must be noted that normally all correspondence and transactions will be made only with the parties whose tenders have been accepted and not with anybody else.
- h) The undersigned reserves the right to split up the order for supply of articles at tender for amongst more than one tender.

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- a) The Tender inviting authority may ask for samples and demonstration of any particular item quoted by the bidders. The bidders shall have to submit samples and give Demonstration in the prescribed time limit. In case the samples are not produced in the prescribed time it shall be open to the undersigned to forfeit Earnest Money Deposited by the bidder. If the samples sent by the party are approved the same will be adjusted in regular supply and in the case of rejection, they will be returned back to the party at his cost.
- b) The Items including its packing (packaging), to be supplied, shall be of the best quality and shall comply with the specifications given in the Tender Document.
- c) All Items should be supplied with quality certificate. The undersigned may get the items inspected by such person or persons he deems fit and to reject such of these items as in his opinion do not come up to the specification. The decision of the undersigned will be final in such cases. The rejected items will be returned on the bidder's cost.
- d) If any of the Items supplied by the tenderer, found to be 'Not of Standard Quality' after the delivery, the tenderer should supply the whole Item quantity again irrespective of consumption of that particular. The balance stock, if any, should be taken back within 7 days by the supplier at his/her own cost otherwise the authority will destroy it and no claim in this regard shall be entertained.
- e) **Guarantee Certificate:** - The Bidder will have to submit the GUARANTEE CERTIFICATE as per **Annexure – 4**
- f) **Warrantee/Guarantee should be for a period of minimum 5 year.**

Payment Terms

- a) The 50% payment will be released on placing order, 50% payment dispatch and remaining successful complete verification of goods and supply. However, if supplied Items are found not as per specifications, then whole payment will be withheld and shall be released only after receipt of replacement of Items which were found not of standard quality.

Settlement of Disputes

- a) In the event of any dispute arising out of the tender or orders such dispute would be subject to the jurisdiction of Courts of Kanpur Nagar Uttar Pradesh nearest to the place of Tender Inviting Authority.

3. E-TENDERING PROCESS

Registration of Bidders on e-Procurement System

Manufacturers or their Authorized Dealers for Supply of Tools, Equipment's and Machines for A.P.V. ITC STRIVE PROJECT IMC 117/H-1/209 PANDU NAGAR BEHIND KAKADEO THANA KANPUR NAGAR-208005 are required to register on the e-Procurement System on the website <https://www.apviti.org> .

E-tendering Helpdesk at A.P.V. ITC STRIVE PROJECT IMC KANPUR Tel. No.9839068120

**e-Tender | Supply of Tools, Equipment's and Machines for
A.P.V. ITC STRIVE PROJECT IMC KANPUR**

Publishing of N.I.T.

For the Tenders processed using the e-Procurement System, the Detailed Notice and terms and conditions of tender shall be published only on the e-Procurement System. The bidders can view the Detailed Notice, Terms & Conditions of tender document and the time schedule for all the Tenders processed using the e-Procurement System on the website <https://www.apviti.org> .

Key Dates and time

The Bidders are strictly advised to follow the time schedule (Key Dates and time) of the tender for their side of tasks and responsibilities to participate in the tender, as all the stages of each tender are locked before the start time and date and after the end time and date for the relevant stage of the tender as set by the concerned Department Official.

Downloading of the Tender Documents

The tender documents can be downloaded online from the website <https://www.apviti.org> .

Preparation of Bids and Submission of Online Bids by the Bidders

The Bidders have to prepare their Bids online, and submit the same by Email.

Submission of Earnest Money Deposit

The manufacturers or their Authorized Dealers shall submit their Earnest Money Deposit online as usual in a physically sealed Earnest Money Deposit envelope and the same should reach the concerned office as stated in the Notice Inviting Tender and key dates.

Earnest Money should be submitted in the form NEFT/IMPS in Account of **A.P.V. ITC STRIVE PROJECT IMC**, Account no.- **695120110000464**, ifsc code- **BKID0006951**, **BRANCH NAME- KAUSHALPURI KANPUR NAGAR** .The manufacturers or their Authorized Dealers has to upload scanned copy of Earnest Money Deposit along with the reference details in the relevant field during online bidding.

Opening of Tender

The concerned Department Official receiving the tender or his duly authorized person shall open the online.

For any further queries, bidders may kindly contact

For more details, please contact on working days within working hours (10:30 to17:30) ,

Mob. 9839068120

E-tendering Helpdesk at **A.P.V. ITC STRIVE PROJECT IMC KANPUR**

Tel. No. 9839068120

E-mail:- shikhatripathi250@gmail.com

FORMAT OF COVERING LETTER

Ref No:

Date:

To,

The Principal/Secretary

A.P.V. ITC STRIVE PROJECT IMC

117/H-1/209 Pandu Nagar Behind Kakadeo Thana Kanpur Nagar-208005

Sub: Submission of Supply of Tools & Equipment for. A.P.V. ITC STRIVE PROJECT IMC KANPUR, Tender SPN No. APVPITC/STRIVE/TEN/2021-22/01

Dear Sir,

As per terms & conditions of the tender following documents are submitted as under:

1. Form "A" Enclosure No.
2. EMD UTR NO./IMPS REF. NO.

Tender No	Earnest Money Deposit	UTR NO./IMPS REF. NO.	Date	Issuing Bank
01	INR 10000			

3. Other Testimonials

We have quoted rates for items (Number of quoted item to be mentioned) in the Tenders as stated below:

Tender No	Total Item in Tender Enquiry	No of Item Quoted
01		

The entire item is quoted with brand name & full specification. The technical detail as desired is submitted in prescribed format as per enclosed Annexure

Authorized Signatory	
Name & Signature with Seal	
Date	

FORM – A

(To be signed and returned along with the tender)

Ref No:

Date:

To,

The Principal/Secretary

A.P.V. ITC STRIVE PROJECT IMC

117/H-1/209 Pandu Nagar Behind Kakadeo Thana Kanpur Nagar-208005

Sub: Submission of Supply of Tools & Equipment for. A.P.V. ITC STRIVE PROJECT IMC KANPUR, Tender SPN No. APVPITC/STRIVE/TEN/2021-22/01

Dear Sir,

I/We

Name of Authorized Signatory	
Name of Bidder	
Address of Bidder	
Phone	
e-Mail	

Have read the Tender rules for the supply of various goods as per Tender notice to the **A.P.V. ITC STRIVE PROJECT IMC KANPUR U.P.** and I/We accept all rules for Tender. I qualify the eligibility criteria of tender documents.

Authorized Signatory	
Name & Signature with Seal	
Date	

**MANUFACTURERS' AUTHORIZATION
FORM**

Ref No:

Date:

To,

The Principal/Secretary

A.P.V. ITC STRIVE PROJECT IMC

117/H-1/209 Pandu Nagar Behind Kakadeo Thana Kanpur Nagar-208005

Dear Sir,

We who are established and reputable manufacturers of *(name and description of goods offered)* having factories at *(address of factory)* do hereby authorize M/s *(Name and address of Agent)* to submit a bid, and sign the contract with you for the goods manufactured by us against the Tender Published by you.

Yours faithfully

(Name)

(Name of manufacturers)

Note: This letter of authority should be on the letterhead of the manufacturer and should be signed by a competent person. This AUTHORIZATION FORM should be notarized. It should be attached in the bid.

PRICE SCHEDULE

(To be fill in prescribed Excel format only & same to be upload for Price Bid, should be submit Separate Sheet for each Tender)

Tender SPN NO	APVPITC/STRIVE/TEN/2021-22/01
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S.No	Item Code	Name & Specification of Item	Make	Price for each unit (in Rs.)					Total Unit priceinclusive of all(Rs. in figures)	Total unit price inclusive of all (Rs. in words)
				Unit Price Including Excise/ Custom Duty (if any)	Service Tax (if any)	Inland transportation, insurance, Installation and other local costs incidental to delivery	Total price inclusive of a+b+c (Rs. in figure)	Sales Tax/VAT/CST (if any)		
				(a)	(b)	(c)	(a+b+c)=d	(e)	(d+e)	(f)

Authorized Signatory	
Name & Signature with Seal	
Date	

GUARANTEE CERTIFICATE

(On the original letter head of the manufacturer)

Ref No:

Date:

To,

The Principal/Secretary**A.P.V. ITC STRIVE PROJECT IMC****117/H-1/209 Pandu Nagar Behind Kakadeo Thana Kanpur Nagar-208005****Sub: Submission of Supply of Tools & Equipment for. A.P.V. ITC STRIVE PROJECT IMC KANPUR, Tender SPN No. APVPITC/STRIVE/TEN/2021-22/01****Ref: Your S.O.NO. Dated placed on our Authorized Dealer**

M/s

Dear Sir,

With reference to the above, this is to certify that the following item has been supplied by our Authorized Dealer M/s

SN	Item Name & Description	QTY
1		
2		

We further certify that the material supplied as above has been duly pre inspected by us and have been found to be in conformity with specification as per the terms & conditions of the supply order.

They are hereby guaranteed for a period of 05 YEARS from the date of receipt at respective ITI; against any material defects, manufacturing defects (Including assembly installation, commissioning as applicable) and bad workmanship.

In case of any defect, we guarantee to replace the same immediately without at any cost.

Seal & Signature of Dealer	Seal & Signature of Manufacturer
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CHECK LIST ENVELOPE**- A**

SN	Documents	Submitted Y/N	Page No
1.	Duly filled Checklist as per format given in Annexure – 8.		
2.	EMD in form Account holder name- A.P.V. ITC STRIVE PROJECT IMC, Account no.- 695120110000464, ifsc code- BKID0006951, BRANCH NAME- KAUSHALPURI KANPUR NAGAR		
3.	Covering Letter duly signed & stamped on letter head.		
4.	Form – A duly signed & stamped on letter head		
5.	Self-attested copy firm registration Certificate		
6.	Self-attested copy of registration in Commercial/sales tax department and its TIN number.		
7.	Item Wise Authorization Certificate in case of Authorized Dealer Annexure – 2.		
8.	Self-attested copy of relevant Licence for Manufacturing/Selling and distribution (whichever appropriate) of the product quoted duly approved by the Licensing authority for each schedule of product quoted as per specification in the tender.		

Authorized Signatory	
Name & Signature with Seal	
Date	

Tender No.-APVPITC/STRIVE/TEN/2021-22/01

ANNEXURE-6

List of Tools & Equipment

ELECTRICIAN 4 (2+2) unit (for batch of 80 candidates)

S No.	Name of the Tools and Equipment	Specification	Quantity
A. TRAINEES TOOL KIT			
1.	Measuring Steel Tape	5 meter	84
2.	Combination Plier Insulated	200 mm	84
3.	Screwdriver Insulated	4mm X 150 mm, Diamond Head	84
4.	Screwdriver Insulated	6mm X 150 mm	84
5.	Electrician screwdriver thin stem insulated handle	4mm X 100 mm	84
6.	Heavy Duty Screwdriver insulated	5mm X 200 mm	84
7.	Electrician Screwdriver thin stem insulated handle	4mm X 250 mm	84
8.	Punch Centre	9mm X 150 mm	84
9.	Knife Double Bladed Electrician	100 mm	84
10.	Neon Tester	500 V	84
11.	Steel Rule Graduated both in Metric and English Unit	300 mm with precision of 1/4th mm	84
12.	Hammer, cross peen with handle	250 grams	84
B. SHOP TOOLS & EQUIPMENT – For 4 (2+2) units no additional items are required			
(i) List of Tools & Accessories			
13.	Hammer, ball peen With handle	500 grams	8.
14.	Pincer	150 mm	8
15.	C- Clamp	200 mm and 100 mm	4
16.	Spanner Adjustable drop forged, SS	150 mm & 300mm	4
17.	Blow lamp brass	0.5 ltr	2
18.	Chisel Cold	25 mm X 200 mm	4
19.	Chisel firmer with wooden Handle	6 mm X 200 mm	4
20.	Allen Key alloy steel	1.5-10 mm (set of 9)	2
21.	Grease Gun	0.5 ltr. Capacity	2
22.	Bradawl		4
23.	Pully Puller with 3 legs	150 mm & 300mm	2
24.	Bearing Puller (inside and outside)	200 mm	2
25.	Pipe vice Cast Iron with hardened jaw open type	100 mm	4
26.	Scissors blade, SS	200mm	8.
27.	Scissors blade, SS	150 mm	4
28.	Crimping Tool	1.5 sq mm to 16 sq mm	4
		16 sq mm to 95 sq mm	4

29.	Wire Cutter and Stripper	150 mm	8
30.	Mallet hard wood	0.50 kg	8
31.	Hammer Extractor type	250 grams	8
32.	Hacksaw frame	Adjustable 300 mm Fixed 150 mm	4
33.	Try Square	150 mm blade	8.
34.	Outside Calliper	150 mm spring type	4.
35.	Inside Calliper	150 mm spring type	4
36.	Divider	150 mm spring type	4
37.	Pliers long nose insulated	150 mm	8
38.	Pliers flat nose insulated	200 mm	8
39.	Pliers round nose insulated	100 mm	8.
40.	Tweezers	150 mm	8.
41.	Snip Straight and Bent heavy duty	250 mm	4
42.	D.E. metric Spanner Double Ended	6 - 32 mm	4
43.	Drill hand brace	0-100mm	8.
44.	Drill S.S. Twist block	2 mm, 5 mm and 6 mm set of 3	8
45.	Plane cutters	50 mm X 200mm	4
46.	Smoothing cutters	50 mm X 200mm	4.
47.	Gauge, wire imperial stainlees steel marked in SWG & mm	Wire Gauge - Metric	8.
48.	File flat	200 mm 2nd cut with handle	16
49.	File half round	200 mm 2nd cut with handle	8
50.	File round	200 mm 2nd cut with handle	8
51.	File flat rough	150 mm with handle	8.
52.	File flat bastard	250 mm with handle	8
53.	File flat smooth	250 mm with handle	8
54.	File Rasp, half round	200 mm bastard with handle	8
55.	Copper bit soldering iron.	0.25 kg	4
56.	De soldering Gun	Heat proof nozzle, PVC type, 250mm	8
57.	Hand Vice	50 mm jaw	8
58.	Table Vice	100 mm jaw	16
59.	Oil Can	250 ml	4.
60.	Contactoer & auxiliary contacts	3 phase, 415 Volt, 25 Amp with 2 NO and 2 NC	4
61.	Contactoer & auxiliary contacts.	3 phase, 415 volt, 32 Amp with 2 NO and 2 NC	4
62.	Limit Switch	Limit Switch, Liver operated 2A 500v, 2-contacts	4.
63.	Rotary Switch	16 A/440v	4
64.	Relay- a. Cut out Relays b. Reverse current c. Over current d. Under voltage	a. 16A, 440V b. 16A, 440V c. 16A, 440V d. 360V-440V	4

65.	Pin Type, shackle type, egg type & suspension type insulators including hardware fitting		4
66.	Hydrometer		4
67.	Hand Drill Machine	0-6 mm capacity	4
68.	Portable Electric Drill Machine	0-12 mm capacity 750w, 240v with chuck and key	2
69.	Load Bank (Lamp / heater Type)	6 KW, 3Ph	2
70.	Brake Test arrangement with two spring balance rating	0 to 25 kg	2
71.	Laboratory Type Induction Coil	1000 W	4.
72.	Out Side Micrometer	0 - 25 mm least count 0.01mm	4
73.	Thermometer Digital	0° C - 150° C	2
74.	Series Test Lamp	230V, 60W	8
75.	Knife Switch DPDT fitted with fuse terminals	16 Amp	8
76.	Knife Switch TPDT fitted with fuse terminals	16 Amp/ 440 V	8
77.	Miniature Breaker	16 amp	4
78.	Earth Plate	60cm X 60cm X 3.15mm Copper Plate 60cm X 60cm X 6mm GI Plate	2
79.	Earth Electrode	Primary Electrode 2100x28x3.25mm Secondary Cu Strip 20x5mm	2.
80.	MCCB	100Amps, Triple pole	2
81.	ELCB and RCCB	25Amps, double pole and 25Amps, double pole, IΔn 30 mA	2
82.	Fuses	HRC Glass Rewire Type	8
83.	Rheostat (Sliding type)	0 - 25 Ohm, 2 Amp 0 - 300 Ohm, 2 Amp 0 -1 Ohm, 10Amp 0 -10 Ohm, 5 Amp	2
84.	Capacitors	Electrolytic Ceramic Polyester film Variable Dual run	4
85.	Various Electronic components	Resistors, Diode, Transistor, UJT, FET, SCR, DIAC, TRAIC, IGBT, Small transformer etc.	As required
86.	Various Lamps	Halogen Incandescent Lamp Fluorescent tube HP mercury vapor Lamp High-pressure sodium Lamp Low-pressure sodium Lamp LED	2
87.	Plug socket Piano Switch Lamp Holder	230 V, 5 A	4

88.	Cables: Twisted Pair Non-Metallic Sheathed Cable Underground Feeder Cable Ribbon Cable Metallic Sheathed Cable Multi-Conductor Cable Coaxial Cable Direct-Buried Cable	1 mtr each	2
89.	Bus bar with brackets	1 mtr each	6.
90.	Rubber mat	2' x 4' x 1"	4
91.	Electrician Helmet	Yellow Colour	4
92.	RCC Pole with accessories (MS angle iron, 'C' clamp, stay insulator etc.) and materials	6 Mtr	2
93.	Safety Belt	Standard quality	4
(ii) List of Equipment			
94.	Ohm Meter; Series Type & Shunt Type, portable box type	50/2000-ohm analog	4
95.	Digital Multi Meter	DC 200mv -1000v,0 – 10A & AC 200mv- 750v , 0-10A, resistance 0-20 MΩ and 3 1/2 digit	24
96.	A.C. Voltmeter M.I. analog, portable box type housed in Bakelite case	Multi range 75 V - 150V - 300V - 600V	6
97.	Milli Voltmeter centre zero analog, portable box type housed in Bakelite case	100 – 0 – 100 mV	4
98.	Ammeter MC analog, portable box type housed in Bakelite case	0 - 500 mA, 0-5 A, 0-25 A	4
99.	AC Ammeter MI, analog, portable box type housed in Bakelite case	0 - 1 A, 0-5 A, 0-25 A	4
100.	Kilo Wattmeter Analog	0-1.5-3KW, pressure coil rating- 240v/440v, current rating-5A/10A Analoge, portable type Housed in Bakelite case	4
101.	Digital Wattmeter	230 V, 1 KW, 50 Hz	4
102.	A.C. Energy Meter	Single Phase, 10 A, 240 V induction type	4
103.	A.C. Energy Meter	Three Phase, 15 A , 440 V induction type	4
104.	Power Factor Meter Digital	440 V, 20 A, Three Phase portable box type	4
105.	Frequency Meter	45 to 55 Hz	4.
106.	Magnetic Flux Meter	0-500 tesla	4

107.	Lux meter	lux meter LCD read out 0.05 to 7000 lumens with battery.	4
108.	Tachometer	Analog Type - 10000 RPM	2
109.	Tachometer	Digital Photo Sensor Type - 10000 RPM	2
110.	Tong Tester / Clamp Meter	0 - 100 A (Digital Type)	4
111.	Megger	Analog - 500 V	4
112.	3- point D.C. Starter	For 2.5 KW DC motor	2
113.	4- point D.C. Starter	For 2.5 KW DC motor	2
114.	Wheat Stone Bridge with galvanometer and battery		4
115.	Single Phase Variable Auto Transformer	0 - 270 V, 10Amp (Air cooled)	4
116.	Phase Sequence Indicator	3 Phase, 415 V	4
117.	Growler	230 V, 50 Hz, Single Phase, Adjustable jaws, Testing armature with ampere meter and testing Probes.	2
118.	AC Starters: - a. Resistance type starter b. Direct online Starter c. Star Delta Starter- Manual d. Star Delta Starter – Semi automatic e. Star Delta Starter – Fully automatic f. Star Delta Starter - Soft starter g. Auto Transformer type	For A.C Motors of 2 to 5 H.P.	2
119.	Oscilloscope Dual Trace	20 MHz	2.
120.	Function Generator	2 to 200 KHz, Sine, Square, Triangular 220 V, 50 Hz, Single Phase	2
121.	Soldering Iron	25-Watt, 65 Watt and 120-Watt, 230 Volt	4
122.	Temperature controlled Soldering Iron	50-Watt, 230 Volt	4
123.	Discrete Component Trainer	Discrete Component (for diode and transistor circuit) with regulated power supply +5,0- 5 V,+12 ,0-12 V	4
124.	Linear I.C. Trainer	Linear I.C. Trainer with regulated power supply 1.2V to 15V PIC socket 16pin and 20 pins with bread board	2
125.	Digital I.C. Trainer	Digital I.C. Trainer 7 segment display and bread board	2

126.	Domestic Appliances –		
	a. Electric Induction plate	a. 1500 Watt, 240V	2
	b. Electric Kettle	b. 1500 Watts, 240V	
	c. Electric Iron	c. Automatic - 750 W, 240 V	
	d. Immersion Heater	d. 1500 Watt, 240V	
	e. A.C. Ceiling Fan and AC Table Fan	e. 68-Watt, 230 V	
	f. Geyser (Storage type)	f. 10 litre	
	g. Mixture & Grinder	g. 750 W, 240 V	
	h. Washing Machine Semi-Automatic	h. 5 Kg,	
	i. Motor Pump set	i. 1 HP, 1 Phase, 240 V	
127.	Oil Testing Kit	Oil Testing Kit 230 V, single phase 50 Hz 60 VA output 0-60 KV Variable	2.
128.	Inverter with Battery	1 KVA with 12 V Battery Input- 12 volt DC, Output- 220 volt AC	2
129.	Voltage Stabilizer	AC Input - 150 - 250 V, 600 VA AC Output - 240 V, 10 A	2
130.	DC Power Supply	0 - 30 V, 5 A	4.
131.	Battery Charger	0 - 6 - 9 - 12 - 24 - 48 V, 30amp	2
132.	Current Transformer	415 V, 50Hz, CT Ratio 25 / 5 A, 5VA	4
133.	Potential Transformer	415 V, 50Hz, PT Ratio, 440V/110V, 10VA	4
134.	Solar panel with Battery	18 Watt	2
135.	Pentium IV Computer or latest	2.8 GHz & above, 1 GB RAM, 80 GB HDD, DVD Combo Drive, 19/21” Monitor, optical scroll mouse, multimedia keyboard, 32 bit LAN card with UPP port, necessary Drivers, etc. OR (Latest Version)	0.
136.	Ink jet/ laser printer		0
C. Shop Machinery - For 4 (2+2) units no additional items are required			
137.	D.C. Shunt Generator with control panel	D.C. Shunt Generator with control panel, 2.5 KW, 220V & 3phase Squirrel cage Induction Motor, 5HP, 440V with control panel & star delta starter	1 No.

138.	Motor-Generator (AC to DC)	Squirrel Cage Induction Motor with star delta starter and directly coupled to DC shunt generator and switch board mounted with regulator, air breaker, ammeter, voltmeter, knife blade switches and fuses, set complete with case iron and plate, fixing bolts, foundation bolts and flexible coupling. Induction Motor rating: 7.5 HP, 415V, 50 cycles, 3 phases. DC Shunt Generator rating: 5 KW, 440V (Output voltage varies 110-440v)	1 No.
139.	D.C. Compound Generator with control panel including fitted rheostat, voltmeter, ammeter and breaker	D.C. Compound Generator with control panel including fitted rheostat, voltmeter, ammeter and breaker, 2.5 KW, 220V & 3phase Squirrel cage Induction Motor, 5HP, 440V, with control panel & star delta starter	1 No.
140.	DC Series Motor coupled with spring balance load	2.5 KW, 220 Volts	1 No.
141.	DC Shunt Motor	2.5 KW, 220 V	1 No.
142.	DC compound Motor with starter and switch	2.5 KW, 220 volts	1 No.
143.	Motor Generator(DC to AC) set consisting of - Shunt Motor with starting compensator and switch directly coupled to AC generator with exciter and switch board mounted with regulator, breaker, ammeter, voltmeter frequency meter, knife blade switch and fuses etc. Set complete with cast iron bed plate, fixing bolts, foundation bolts and flexible coupling.	Shunt Motor rating: 5 HP, 440V AC Generator rating : 3-Phase, 4 wire, 3.5 KVA, 400/230 Volts, 0.8 pf, 50cycles	1 No.
144.	AC Squirrel Cage Motor with star delta starter and triple pole iron clad switch fuse with Mechanical Load.	5 HP, 3-Phase, 415 V, 50 Hz	1 No.
145.	AC phase-wound slip ring Motor with starter switch	5 HP, 440 V, 3 Phase, 50 Hz	1 No.
146.	Universal Motor with starter/switch	240 V, 50 Hz, 1 HP	1 No.
147.	Synchronous motor with accessories like starter, excitation arrangements.	3 Phase, 3 HP, 440V, 50Hz, 4 Pole	1 No.
148.	Thyristor /IGBT controlled D.C. motor drive with tacho-generator feedback arrangement	1 HP	1 No.
149.	Thyristor/IGBT controlled A.C. motor drive with	VVVF control 3 Phase, 2 HP	1 No.
150.	Single phase Transformer, core type, air cooled	1 KVA, 240/415 V, 50 Hz	3 Nos.
151.	Three phase transformer, shell type oil cooled with Delta/ Star	3 KVA, 415/240 V, 50 Hz	2 Nos.

152.	Electrical Machine Trainer –	Suitable for demonstrating the construction and functioning of different types of DC machines and AC machines (single phase and three phase). Should be fitted with friction brake arrangement, dynamo meter, instrument panel and power supply unit	1
153.	Diesel Generator Set with changeover switch, over current breaker and water/ air-cooled with armature, star-delta connections AC 3 phase	7.5 KVA, 415 volt or higher rating	0
154.	Used DC Generators-series, shunt and compound type for overhauling practice		1 No. Each
155.	Pillar Electric Drill Machine Motorized	12-20 mm Capacity, 1HP, 440V, 3 phase, Induction Motor with DOL starter, Bench Type	1 No.
156.	Motorized Bench Grinder	1 HP. 3 phase, 440V with DOL starter, Double side with smooth and rough wheel with Tool Base	1 No.
157.	A.C. Series type Motor	1 HP, 240 V, 50 Hz	1 No.
158.	Single Phase Capacitor Motor with starter switch	1 HP, 240 V, 50 Hz	1 No.
159.	Manual Motor coil Winding Machine	With step arbor	1 No.
160.	Ceiling fan coil Winding Machine	250V, 50 Hz, 1- Φ , with speed control	1 No.
161.	Primary current injection set	220V, 50 Hz, 1- Φ , output current - 200 A (min) with timer	1 No.
162.	Stepper Motor with Digital Controller		1 No.
163.	Shaded Pole Motor	Fractional HP, 240 V, 50 Hz	1 No.
D. Shop Floor Furniture and Materials - For 4 (2+2) units no additional items are required			
164.	Working Bench	2.5 m x 1.20 m x 0.75 m	0
165.	Wiring Board	3-meter x1 meter with 0.5 meter projection on the top	0
166.	Instructor's table		0
167.	Instructor's chair		0
168.	Metal Rack	100cm x 150cm x 45cm	0
169.	Lockers with drawers		0
170.	Almirah	2.5 m x 1.20 m x 0.5 m	0
171.	Black board/white board	(minimum 4X6 feet)	0
172.	Fire Extinguisher CO2	2 KG	0
173.	Fire Buckets	Standard size	0

Note: -

- 1. All the tools and equipment are to be procured as per BIS specification.*
- 2. Internet facility is desired to be provided in the class room.*

(SHIKHA TRIPATHI)

**PRINCIPAL/SECRETARY
A.P.V. ITC STRIVE PROJECT IMC**