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Scott II-27-58,004-4-11-46.

E. & P.H.

(1947) Department.

M. SERIES.

G.O. NO. 1084 Edn.

Dated

26th May 1947.

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[Despatch Abstract.]

College - A.H. College of Technology Coimbatore - Purchase of Apparatus and materials - Sanctioned.

Back Papers.

G.O.	No.	Department.	Date.	G.O.	No.	Department.	Date.

Further Papers.

G.O.	No.	Department.	Date.	G.O.	No.	Department.	Date.
G.O.	2151	Edn	1-9-48				
G.O.	2589	"	16-10-48				

Roc.221-A2/47.

Office of the Director of Public Instruction,
Madras, dated 22.4.47.

From

Dr. S.R.U. Savor, M.A., D.Sc., I.E.S.,
Director of Public Instruction,
MADRAS.

To

The Secretary to Government,
Education and Public Health,
MADRAS.



Sir,

Sub: College - Arthur Hope College of Technology, Coimbatore -
Purchase of Apparatus and materials in 1947-48 -
sanction requested.

In submitting herewith an extract from the letter Roc.38-20/47 dated 10.4.47 of the Principal, Arthur Hope College of Technology, Coimbatore, I request that Government may kindly sanction an expenditure not exceeding Rs.5,40,000/- (Rupees Five lakhs and forty thousand only) in the current year on the purchase of laboratory equipment ~~proposed~~ required for the College. The items of equipment proposed to be obtained are given in the lists enclosed.

2. In view of the scarcity of machinery and material and in order to expedite the procurement of the equipment, the Principal may be permitted to select and order equipment within the expenditure sanctioned.

3. The expenditure can be met from the Provision of Rs.6,07,700/- allotted to the College for the purchase of laboratory equipment in the current year (1947-48).

4. I request the early orders of Government.

S. R. U. Savor
For Director of Public Instruction.

P.R.24/4.

S.R.
24/4

COPY OF:

From
Prof. A. Viswanath, M.Sc. (Lond) A.C.G.I.,
Principal, D.I.C., M.I.E.,
Arthur Hope College of Technology,
Coimbatore, Peelamedu P.O.

To
The Director of Public
Instruction,
MADRAS.

No. R.O.C.38-2C/47.

Dated 10th April 1947.

Sir,

Sub: Apparatus and materials - Purchase of - Utilising the
amount provided for in the Budget Estimate for 47-48 -
Permission applied for -

I wish to bring to your notice that in the last two Academic years 1945-46
and 1946-47, a sum of Rs.3,48,385/- under the head "Apparatus & Materials"
has been led to lapse as detailed hereunder:-

Years.	Allotment sanct- tioned under "Ap- paratus & Materials"	Amount surrendered as unspent.	Amount actually spent under Apparatu & Materials.
	Rs.	Rs.	Rs.
1945-46	43,600	39,063	4,537
1946-47	4,05,000	3,09,322	95,678
Total	4,48,600	3,48,385	1,00,215.

From the above, it will be seen that this College has procured during
its first & second year, Equipment approximately for Rs.4,537 and
Rs.95,678/- only respectively although the Government granted approximately
Rs.5 lakhs.

Similarly, under "Purchase & Repair of Furniture" an amount of
Rs.22,442/- was surrendered during the year 1946-47.

The one feature which should distinguish a Technical College from other
Educational Institutions is the specialized Equipment which constitutes the
vital requirement for imparting Engineering Education to the University
standard. Two years have now elapsed and it has reached a stage when the
students have to be allotted to the specialized branches of study like,
Civil Engineering, Electrical Engineering, Automotive Engineering etc. But
nothing has been done so far in the way of procuring equipment to the
various laboratories and Workshops.

In the current financial year 1947-48, my predecessor has given a
forecast of Budget requirements under the head "Apparatus & Materials"
for Rs.6,07,650/-. Due to the serious dearth of equipment machinery &
material, manufacturers are unable to give firm quotations or definite
delivery and whatever goods they offer are subject to prior sale and
very often on the basis of advance payment either part or full. Under
these circumstances to expedite the procurement of the equipment, it
will be necessary that the Principal should be empowered to select and
order equipment within the Budget - Allotment. This was done for the
Vizagapatam Engineering College at Cocanada.

I am therefore writing this letter requesting you to move the
Government to authorise me to operate the funds - sanctioned to this
College in the current year's Budget for 1947-48 under the various heads.

I am submitting herewith a list of various items of equipment,
Apparatus etc., urgently required for the various sections of this College.
The total expenditure works out to Rs.5,38,359/- approximately and this
is covered in the Budget allotment for 1947-48. A further list to cover
the rest of the Budget amount will be submitted as early as possible.

I request early orders.

Sd/*****

PRINCIPAL.

XXX (TRUE COPY).

For Director of public instruction.

38
24/4

SUMMARY
COST OF EQUIPMENT. URGENTLY REQUIRED

Electrical Laboratory.	...	...	...	Rs.	2,00,840.
Workshops.	...	....	....	"	1,81,995.
Mechanical Engineering Laboratory....	....	....	....	"	49,183.
Strength of Materials Laboratory.	...	....	....	"	46,295.
Hydraulic Laboratory.	...	...	....	"	24,147.
Surveying.	....	...	....	"	35,899.

Total. 5,38,359. or Rs. 5,40,000/-
in round figures

This amount is as against Rs.6,07,650/- provided for in the
Budget Estimate for the year 1947-48.

Arthur Hope College of
Technology, Coimbatore,
Peelamedu P.O. 11-4-47

Alena
Principal.

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(51)

LIST OF EQUIPMENT TO BE ORDERED DURING 1947-48
FOR THE ELECTRICAL ENGINEERING DEPARTMENT.

Particulars of Equipment.	Qty:	Cost in Rs.
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MACHINES :-

a.	D.C.Motor/D.C.Generator Sets with all accessories such as starters and field regulators (Motor 5/7 H.P. Gen:3.5/5 kW.)	2	8000/-
b.	D.C.Compound Motor with all accessories as above (5/7 h.p.)	1	2000/-
c.	D.C.Series Motor with all accessories as in (a). (5/7 h.p.)	1	1800/-
d.	D.C.Motor/Alternator sets with all accessories such as starters and field regulators (Motor 5/7 h.p: Gen: 3.5/5 kVA.)	2	10000/-
e.	Slip ring Induction Motor, with different types of starters.	1	3000/-
f.	Single phase motors, such as repulsion capacitor and Induction types (Rating: about 2 h.p.each)	3	1200/-
g.	Fractional h.p. D.C and A.C motors ($\frac{1}{4}$ to 1 h.p.)	3	600/-
h.	Induction motor/ D.C.Generator set for Lab: Power Supply (25 kW)	1	8000/-
i.	Three phase transformer 400/230 V 25 kVA, for Lab: A.C.supply.	1	1500/-
j.	Switchboard for above.	1	500/-

MAGNETIC MEASUREMENTS:-

a.	9" Electromagnet with soft Iron cores.	1	400/-
b.	Hibbert's magnetic standard.	1	500/-
c.	Standard solenoid.	1	300/-
d.	Flux meters with search coil.	2	1000/-
e.	Lohy's Stalloy & other core plates.		300/-

DIAL & PLUG RESISTANCES :-

a.	2 dial Resistances (various ranges)	4	1200/-
b.	3 dial resistances (various ranges)	4	1400/-
c.	4 dial resistances (various ranges)	4	2700/-
d.	Slide wire 0 - 1/2.5 ohms.	1	750/-
e.	Sub-divided megohm.	2	1200/-
f.	Non-inductive ratio box.	1	500/-
g.	Plug resistance boxes(diff:ranges)	6	1800/-

48650/-

Particulars of Equipment.

Qty: 6 Cost in Rs.

INDUCTANCES :-

a. Variable mutual Inductance.	1	500/-
b. Standard self Inductance.	3	1200/-
c. Variable self Inductance.	3	1500/-

CONDENSERS :-

a. Standard Mica condensers.	2	800/-
b. 3 Dial decade condensers.	2	1800/-
c. 20 μ fd. loading condensers.	12	600/-

GALVANOMETERS.

a. Pointer type Galvanometer.	2	600/-
b. Self contained reflecting Galv:	2	700/-
c. D Arsonval type Galvanometers (different suspensions)	3	1500/-
d. Vibration Galvanometers for different frequencies.	3	3000/-

POTENTIOMETERS :-

a. D.C. Vernier Potentiometer with all accessories.	1	3000/-
b. Student's type A.C.Co-ordinate Potentiometer, with various accessories.	1	2000/-
c. A.C. Co-ordinate Potentiometer (regular dial type)	1	3000/-
d. Weston Standard Cell.	1	250/-

BRIDGES :-

a. Schering bridge with Wagner earth.	1	3300/-
b. Oscillator for Audio frequency bridge work.	1	3400/-
c. Capacity ratio arms.	1	400/-

OSCILLOGRAPHS :-

a. 3 element Oscillograph with tracing desk.)	1	2700/-
b. 6 element Oscillograph with watt element and camera equipment.	1	6000/-

LAMP SCALE & STAND:-

a. Lamp scale & stand for use with Galvanometers for bridge work.	1	1100/-
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PORTABLE D.C.AMMETERS :-

a. D.C.Milli-Ammeters various ranges.	16	4000/-
b. D.C.Ammeters from 1 to 30 amps:	50	15000/-

10,500/-

Particulars of Equipment.	Qty:	Cost in Rs.
<u>PORTABLE D.C.VOLTMETERS.</u>		
a. D.C.Milli-Voltmeters(diff: ranges)	8	2000/-
b. D.C.Voltmeters 1 to 300 volts.	40	12000/-
c. Multi-range Voltmeters.	12	3600/-
<u>PORTABLE A.C.AMMETERS :-</u>		
a. 1 to 30 amps. (various ranges)	50	14000/-
<u>PORTABLE A.C.VOLTMETERS.</u>		
a. 5 to 600 volts (various ranges)	50	15000/-
<u>PORTABLE DYNAMOMETERS WATTMETERS:-</u>		
a. Unity Power factor(various ranges)	12	9600/-
b. Low Power factor(various ranges)	6	5400/-
c. Polyphase wattmeters.	2	1800/-
d. Multipliers for above.	6	1800/-
<u>POWER FACTOR METERS.</u>		
a. 150/300 Volts & 10/20 amps.	3	5400/-
<u>FREQUENCY METERS :-</u>		
a. Reed and Pointer types.	2	2500/-
<u>SWITCHBOARD INSTRUMENTS:-</u>		
a. Ammeters and Voltmeters.	12	2000/-
b. <u>SWITCHES.</u>		
a. Iron Clad for various currents.	12	200/-
b. 2 pole knife switches.	12	240/-
c. 3 pole knife switches.	12	300/-
<u>MISCELLANEOUS ACCESSORIES.</u>		
Such as panels, wires, cables, wiring accessories, carbon rheostats, tachometers, stop watches, tools, etc., Photometric Equipment.		26000/-

2,00,840/-

10/2/47

List of equipment urgently required

WORKSHOP.

Serial No.	Description of Machine.	Nos., required.	approximate cost of each. Rs.	Total cost. Rs.
<u>Machine Shop.</u>				
1.	S.S/SC Lathes - individual Motor drive) standard equipment change gear type with standard equipment - 6'-0" length of bed -)	4	6,000/-	24,000/-
2.	Planing Machine - individual motor) drive - 4'-0" length of bed & 6'-0")	1	10,000/-	10,000/-
3.	Milling Machine - Universal Type.	1	16,000/-	16,000/-
4.	-----do----- - Ordinary.	2	8,000/-	16,000/-
5.	Slotting Machine 12" x 16" Diam:table	2	3,500/-	7,000/-
6.	Shaping Machine 12" x 18" Cincinnati) pattern.)	2	4,000/-	8,000/-
7.	Drilling Machine, vertical 1 1/2" drill) capacity.)	2	2,000/-	4,000/-
8.	Surface grinder - vertical spindle) type - table 24" x 10")	1	6,000/-	6,000/-
9.	Floor Grinders 12" x 2" stone.	1	1,500/-	1,500/-
10.	Oxy - Acetylene - welding set) (Portable))	1	3,000/-	3,000/-
11.	Hacksawing Machine.	1	700/-	700/-
<u>Tool-Room :-</u>				
1.	SS/SC Lathes - quick change gear,) precision lathes for toolroom work) 6'-0" bed.)	1	8,000/-	8,000/-
2.	Stanly Lathe 7" x 6'-0"	1	12,330/-	12,330/-
3.	6 1/2" centre x 6' SS/SC Lathe.	1	4,655/-	4,655/-
4.	Universal Tool & Cutter Grinder) with attachment for internal &) external cylindrical grinding. -) medium size.)	1	3,000/-	3,000/-
5.	Fellow gear shaper (small size)	1	5,000/-	5,000/-
6.	Sensitive Drilling machine (motorised)	2	1,000/-	2,000/-
7.	Bench Milling Machine (Motorised)	1	4,000/-	4,000/-
8.	Bench grinder (Motorised) 10" x 1") diam: wheels.)	1	1,000/-	1,000/-
9.	A complete set of Inspection gauges) and accessories. & Optical comparator) etc.)	1	9,000/-	9,000/-
<u>Fitting Shop.</u>				
1.	Surface plates 12" x 12".	2	150/-	300/-
2.	Miscellaneous Precision Tool instrument, Gauges etc.			1,000/-
<u>Blacksmith's Shop</u>				

Serial No.	Description of Machine.	Nos., required.	Approximate cost of each.	Total cost.
			Rs.	Rs.
BLACKSMITH'S SHOP				
1.	Smith Hearts 26" x 26".	12	300/-	3,600/-
2.	Smith Anvil's.	4	300/-	1,200/-
3.	Sets of Blacksmith's Tool.	12	150/-	1,800/-
4.	Swage Blocks 18" x 18" x 5"	2	500/-	1,000/-
5.	Power Hammer 1 Cwt.	1	4000/-	4,000/-
6.	Flow/werto feed 12 Hearths.	1	2000/-	2,000/-
7.	One set of Pneumatic tools chipping, Rivetting, caulking tools.	1	500/-	500/-
FOUNDRY.				
1.	Sets of Moulders & Foundrymen) Hand tools.	15	50/-	750/-
2.	Laddle 2 Cwts.	1	200/-	200/-
3.	Ladle 1 Cwt.	2	150/-	300/-
4.	Cupola with Vlower and Motor -) 1 Ton tilting type.	1	2500/-	2500/-
5.	Crucible type tilting furnace- 500 lbs.	1	1500/-	1500/-
6.	A set of Auxillary equipment like) crucible, Pyrometer, Mould, Seives, etc.			2000/-
CARPENTRY SECTION				
1.	^{Circular} Surplus Saw Machine.	1	3500/-	3500/-
2.	Sandstone Grinding Wheel.	1	150/-	150/-
3.	Surface Planing Machine.	1	3500/-	3500/-
4.	Woodturning Lathes.	2	1000/-	2000/-
5.	Miscellaneous Tools.			5000/-

1,81,995/-

List of equipment urgently required.

MECHANICAL ENGINEERING LABORATORY.

Lindas Diesel Engine	Rs.3800/-
Avery Platform Scale.	" 740/-
Hill Diesel Engine.	" 4700/-
Centrifugal Pump set.	" 5885/-
Hopkinson's Draught gauge.	" 210/-
Kent's Watermeter.	" 300/-
Hopkinson's Slide valve trap.	" 304/-
1/2" flexible Metal tubing with) couplings.)	" 168/-
2 Nos. Burettes with stop cocks & stand."	55/-
6 Nos. Salter's Spring Balance.	" 210/-
Analytical Chemical Balance.	" 490/-
Hydrometers.(3 Nos.)	" 35/-
Mortar & Pestle.Iron.	" 20/-
Gas Analyser, Williams Model.	" 450/-
Orsat Fisher Gas Analysis Apparatus.	" 290/-
Pipe wrench.	" 32/-
Pipe vice.	" 106/-
Blow-lamp.	" 18/-
Ford V-8 Engine with Chassis (or other type)	" 7000/-
Cambridge Exhaust Gas Tester.	" 1200/-
Indicators.(2 Nos.)	" 1000/-
Pipes & Fittings.	" 1000/-
Coventry Cub Oil Engine.	" 3000/-
Ruston Oil Engine.	" 3000/-
Budenberg Gauges.(dead weight & vacuum) gauges)	" 1700/-
Worthington Steam Pump.	" 1500/-
Thermometers.	" 100/-
Mercury in Steel Thermometer.	" 250/-
Beckman Thermometer.	" 120/-
Electric Furnace.	" 800/-
Thermo-electric Pyrometer.	" 700/-

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Hensky Marten's Flash point tester.	Rs. 460/-
Cleveland's Flash point tester.	" 100/-
Saybolt Vascometer.	" 840/-
Thermostatic-Viscometer.	" 750/-
Universal Viscometer.	" 900/-
Conradson Apparatus.	" 100/-
Calorimeter for above.	" 850/-
Parr Oxygen Bomb-calorimeter.	2300/-
Gas Calorimeter.	2300/-
Demulsification Apparatus.	250/-
Boys Gas Calorimeter.	1150/-

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List of equipment urgently required
STRENGTH OF MATERIALS - LABORATORY.

	Rs.
Universal Testing Machine 10 Tons.	7934/-
" " " 100 "	23080/-
Power Driven hardness Testing machine.	2347/-
Torsion Testing Machine.	7587/-
Fatigue Tester.	3347/-
Cement Testing Machine.	2000/-
Hydraulic	46295/-

HYDRAULIC LABORATORY.

Orifice Tank measuring Tank Weir Tank with cocks etc.	Rs. 1400/-
Friction in pipe and loss of head Apparatus.	3700/-
Impact of Jet on ~~xxx~~ vanes apparatus.	2700/-
Calibrated Tank Testing Bench with float valve. &) loss of head Indicator.)	5865/-
Ventury Tube and Recorder.	8372/-
3" Ventury meter with cast Iron flanges.	1150/-
Hydraulic Ram.	960/-

24147

SURVEYING

Dumpy Level.	Nos.8.	6414/-
5" Stanly Transit Theodolites	Nos.12.	22540/-
100' Steel chains.		1945/-
Miscellaneous.		5000/-

35899

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2081
College - A. H. College of Technology, Coimbatore
Purchase of Apparatus and Materials - Sanctioned

C.N.: 31478A/44, From the DPE, No. 221 - Ar 1478 22-4-47

C.O. No. 1084 Dtd 26-5-1947

The Govt. sanction an expre not exceeding Rs 5,40,000 (Rupees Five Lakhs and forty thousand only) in the current year on the purchase of laboratory equipment required for the A.H. College of Technology, Coimbatore. The Principal of the College is permitted to select and order the equipment within the sanctioned expre.

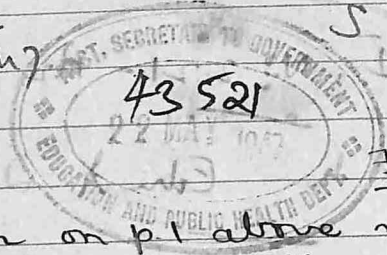
2. The expre should be debited to "37d. Edu - University Grant Professional Colleges - E. Post-War Reconstruction - 1) A.H. College of Technology, Coimbatore - 4. Other charges - Apparatus and materials - Voted".

Set 1/27/47
1206 of the Budget for 47-48
The DPE
A.C. K. M. F.

ET 13/5/47
14/5/47
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(P.T.O.)

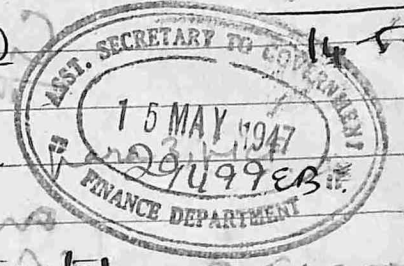
note Finance v. H. A. - 2/11/47
for acceptance

13/5/47
14/5/47



Em v. 0 31478

The draft order on p. 1 above may be accepted. The expenditure will be met from the provision already made in the budget for 1947-8. Though the expenditure is large, it need not be treated as on a 'new service' as the articles of equipment are required for the working of the college library.



Sey. 19547 19547

21/5/47
22/5/47

Fui no 29499EB-1
20.5.47.

The draft order may issue

22/5/47
23/5/47

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