

प्रेषक,

प्रधानाचार्य  
राजकीय पालीटेक्निक, टूण्डला,  
फिरोजाबाद।

सेवा में,

निदेशक  
प्राविधिक शिक्षा उ०प्र०,  
कानपुर।

पत्रांक 1421 /टूण्डला /


दिनांक:- 28-04-2022

विषय:-संस्था की AICTE द्वारा दर्शायी गयी कमियों के सम्बन्ध में।

महोदय,

कृपया अवगत कराना है कि urise पोर्टल पर उपलब्ध कराये गए प्रारूप पर संस्था की कमियों के निराकरण हेतु आवश्यक बजट का आकलन कर सूचना पूर्ण कर आपकी आवश्यक कार्यवाही हेतु प्रेषित है।

भवदीय

  
(अशरफ अली )  
प्रधानाचार्य

भारत सरकार द्वारा प्रदेश में स्थापित होने वाली नवीन राजकीय पॉलीटेक्निक संस्थाओं में से जिन-जिन संस्थाओं की धनराशि निदेशालय में प्राप्त हुई है, में अद्यतन बीटीई सूची के अनुसार अवशेष लैब/शांप उपकरणों की सूची जिन्हें क्रय किया जाना शेष है।

संस्था का पूरा नाम-राजकीय पॉलीटेक्निक टूण्डला, फिरोजाबाद				राजकीय पॉलीटेक्निक पहाड़ीपुर भौंडेला टूण्डला, फिरोजाबाद (283204)			मो नं०-884095115		
जोन का नाम-पश्चिमी क्षेत्र									
क्र०सं०	ब्रांच का नाम	लैब का नाम	बीटीई सूची के अनुसार उपकरण का नाम	बीटीई की अद्यतन सूची के अनुसार आवश्यक उपकरणों	सम्बन्धित उपकरण की वर्तमान स्थिति / आवश्यकता में पूर्ण	क्रय हेतु प्रस्तावित	अनुमानित कीमता प्रति यूनिट बीटीई की अद्यतन	वर्तमान में क्रय किये जाने वाले उपकरण की कीमत	अव्युक्ति
A	B	C	D	E	F	G=E-F	H	I=GxH	J
1	PMT	PLASTIC PROCESSING LAB-I & II	Hand injection moulding Machine With heaters and(15gm/20gm./25gm.) Temp. controllers.	3	1	2	10000	20000	
2			Hand blow moulding machine (15gm./30gm.)	4	0	4	10000	40000	
3			Semi-automatic moulding/ Blow moulding machine(15gm.)	1	0	1	150000	2E+05	
4			Hand compression moulding Machine(20 ton)	1	0	1	60000	60000	
5			Automatic compression Moulding machine-(30ton)	1	0	1	300000	3E+05	
6			Vacuum forming m/c (smallest size)single chamber	1	0	1	200000	2E+05	
7			Scrap grinding m/c(small)	1	0	1	50000	50000	
8			PVC Welding m/c/hot welding Machine.	2	0	2	10000	20000	
9			Different moulds for all Machines.	5	0	5	10000	50000	
10			gravure printing m/c	1	0	1	200000	2E+05	
11			Pad printing m/c	1	0	1	50000	50000	

12	PMT	PLASTIC TESTING LAB	U.T.M m/c(2ton)	1	0	1	150000	2E+05	
13			Impact testing machine	1	0	1	40000	40000	
14			Hardness testing machine	1	0	1	20000	20000	
15			film dart impact testing machine	1	0	1	25000	25000	
16			Melt flow machine	1	0	1	200000	2E+05	
17			HDT machine	1	0	1	100000	1E+05	
18			Restivity test equipment	1	0	1	70000	70000	
19			Software s as per requirements	1	0	1	500000	5E+05	
20	PMT	COMPUTER AIDED MOULD DESIGN LAB	Open Source/Freeware Software for Mould Design	0	0	0	0	0	
21			Computer System (Intel i5/AMD Ryzen 5 latest generation or higher, 8GB RAM, 1TB HDD or 512 SSD, 19.5 Inch Monitor, Window 10 pro or latest)	10	0	10	65000	7E+05	
22			Printer (All in one Ink Tank Printer -01 No., All in One laser Printer-01 No.)	2	0	2	30000	60000	
23			Anti Virus (3 Years License)	10	0	10	2500	25000	
24			Online UPS(5KVA) with Battery and stand Warranty on UPS: 03 Years, Warranty on Batteries: 02 Years)	1	0	1	125000	1E+05	
25			Multimeter	2	0	2	1000	2000	
26			Clamp meter	2	0	2	2500	5000	
27	Power Analyser	1	0	1	20000	20000			
28		Different types of lamps (LS) - 60 W lamp, 230 V , 100 V - 200 W lamp - 500 W lamp - 100 W lamp, 110 V, 150	10	0	10	50	500		
29			Lux meter	2	0	2	2500	5000	

30	COMMON TO ALL BRANCH (PMT,CE,ME)	ENERGY CONSERVATION LABORATORY	Centrifugal pump, 1 kW	1	0	1	15000	15000	
31			Standard window A.C.	1	0	1	20000	20000	
32			Anemometer	2	0	2	2500	5000	
33			Thermometer	3	0	3	700	2100	
34			Flow meter	2	0	2	5000	10000	
35			Pumping set with at least two pumps of different capacity.	1 set	0	1	10000	10000	
36			Pressure gauge fitted on discharge lines	1	0	1	2000	2000	
37			Variable Frequency Drive	2	0	2	25000	50000	
38			A small compressor with a small network of pipe line fitted with suitable pipeline, pressure gauge, safety valve and loading / unloading pressure switch	1	0	1	3000	3000	
39			Stop watch	2	0	2	500	1000	
40			Small blower (1.5 kW motor) with inlet and outlet ducts of approximately one meter length on both sides	1	0	1	10000	10000	
41			Black Box (for checking lamp efficacy including stand and luxmeter)	1	0	1	25000	25000	
42			COMMON TO ALL BRANCH (PMT,CE,ME)	ELECTRICAL AND ELECTRONICS ENGINEERING LABORATORY	Wattmeter	5	0	5	2000
43	Ammeter	5			0	5	2000	10000	
44	Voltmeter	5			0	5	1500	7500	
45	DC shunt motor	1			0	1	5000	5000	
46	Single phase variac	1			0	1	2500	2500	
47	Single phase transformer	1			0	1	5000	5000	
48	Resistive load	1			0	1	4000	4000	
49	Multimeter	1			0	1	4000	4000	
50	CRO	1			0	1	15000	15000	
51	Regulated supply	1			0	1	8000	8000	
52	Signal generator	1			0	1	5000	5000	
53	3-phase inductor motor	1			0	1	5000	5000	
54	3-phase variac	1			0	1	8000	8000	
55	DC shunt generator coupled with motor and starter	1	0	1	25000	25000			

56			Rheostat	2	0	2	1250	2500	
57			Tachometer	1	0	1	5000	5000	
58			Refrigeration trainer to determine C.O.P.	1	0	1	6000	6000	
59			Air conditioner trainer / Test rig window type and split type air conditioner	1	0	1	100000	1E+05	
60			Water cooler	1	0	1	6000	6000	
61			Refrigeration compressor	1	0	1	3000	3000	
62	ME	REFRIGERATION AND AIR CONDITIONING LABORATORY	Safety controls (HP, LP Cut outs, oil pressure controls), solenoid valve, expansion valves, thermostats, charging board	1	0	1	3000	3000	
63			Gas charging equipment kit	1	0	1	15000	15000	
64			Vacuum pump	1	0	1	3000	3000	
65			Cut-Section model of thematically sealed compressor	1	0	1	6000	6000	
66			Hand tools for cutting , flaring, swaging and brazing of tubes	1	0	1	5000	5000	
67			Brinell and Rockwell hardness tester	1	0	1	60000	60000	
68			Impact testing machine (Izod and charpy)	1	0	1	50000	50000	
69		STRENGTH OF MATERIALS LABORATORY	Microprocessor based universal testing machine	1	0	1	400000	4E+05	
70			Torsion testing machine (fully computerized)	1	0	1	200000	2E+05	
71			Spring Stiffness Tester	1	0	1	50000	50000	
72			SFD & BMD apparatus	2	0	2	2500	5000	
73			Electric furnace muffle type	1	0	1	60000	60000	
74			Forced circulation tempering furnace	1	0	1	30000	30000	
75			Quenching tank	2	0	2	5000	10000	
76			Grinder	2	0	2	2000	4000	
77			Pyrometers	1	0	1	10000	10000	
78	ME	ENGINEERING MATERIAL LAB	Specimen Kit (Ferrous and Non-ferrous Metals (25 Nos)	1	0	1	5000	5000	
79			Metallurgical microscope	3	1	2	35000	70000	
80			Abrasive cut off machine	1	0	1	50000	50000	

81	THERMAL ENGINEERING LABORATORY	Specimen Polishing Machine (Double Disk type)	1	0	1	50000	50000	
82		Thermocouples	2	0	2	2500	5000	
83		Set of Specimen of different alloys	1	0	1	5000	5000	
84		Brinell Hardness Tester	1	0	1	80000	80000	
85		Throttling Calorimeter	2	0	2	5000	10000	
86		Testing for Determination of Dryness fraction of steam	1	0	1	50000	50000	
87		Cut section model of 4-stroke single cylinder Petrol and Diesel engine	1	0	1	30000	30000	
88		Gravimetric Analysis	1	0	1	20000	20000	
89		Model of Various Boiler Mounting and Accessories -Steam Stop Valve, Safety Valves, Blow off Cock, Water Level Indicator, Low Water High Pressure Safety Valve, Pressure Gauge, Economiser, Pre Heater (Air), Super Heater Model only.	1 each	0	1	10000	10000	
90		Exhaust Analyser for Petrol and Diesel engine(1 each)	1 each	0	2	25000	50000	
91		Single Stage Reciprocating Air Compressor	1	0	1	50000	50000	
92		Rotary Compressor, Air Compressor	1	0	1	25000	25000	
93		Flash Point Apparatus	1	0	1	10000	10000	
94		Pyrometer, Infrared, Thermocouple	1 each	0	2	5000	10000	
95		Lancashire boiler model, Nestler Boiler Model	1 each	0	2	10000	20000	
96		Model of impulse turbine	1	1	0	5000	0	
97		Model of reaction turbine	1	1	0	5000	0	
98		Model of surface condenser	1	1	0	5000	0	
99		Bab Cox & Wilcox Boiler Model	1	0	1	10000	10000	
100		Heat Transfer apparatus for conduction , convection and Radiation	1	0	1	45000	45000	
101	Model of 2 stroke, 4 stroke engines	1	1	0	6000	0		

102		Steam Separating & Throttling calorimeter fully instrumented to determine, quality of steam of 10-15 kg/cm <sup>2</sup> . Pressure with steam condensing arrangement	1	0	1	30000	30000		
103		Single cylinder 2 stroke petrol engine test rig	1	0	1	45000	45000		
104		Single cylinder 4 stroke petrol engine test rig	1	0	1	50000	50000		
105		Multicylinder petrol engine test rig ( Morse test rig)	1	0	1	200000	2E+05		
106	ME	AUTOMOBILE ENGINEERING LAB.	Battery Charger 0-12 V, 0-6 Amp.	1	0	1	2000	2000	
107			Batteries 6 V & 12 V	2	0	2	2000	4000	
108			Hydrometer	1	0	1	1000	1000	
109			Cell Tester	1	0	1	1000	1000	
110			Working Model of Battery Ignition System, Magneto Ignition System Fitted on board	1	0	1	2000	2000	
111			Fuel Injection Pump	1	0	1	15000	15000	
112			Calibration Machine with Fuel Injection Pump & Coupling	1	0	1	25000	25000	
113			Electrical Testing Bench	1	0	1	2000	2000	
114			Condemned petrol engine of light petrol vehicle	1	0	1	5000	5000	
115			Condemned Diesel engine of medium and heavy vehicles	1	0	1	5000	5000	
116			Tyre inflator with twin hose assembly and small hose assembly	1	0	1	2500	2500	
117			Spark plug cleaning machine and Testing machine	1	0	1	5000	5000	
118			Condemned chassis frame of any light motor vehicle	1	0	1	5000	5000	
119			Sectioned working model of a single cylinder two stroke petrol engine	1	0	1	1000	1000	
120			Sectioned working model of single cylinder two stroke diesel engine	1	0	1	1000	1000	

121			Sectioned working model of a single cylinder four stroke diesel engine	1	0	1	1000	1000	
122			Sectioned working model of a single cylinder four stroke petrol engine fitted with ignition system Hand Operated /Motor Operated	1	0	1	6500	6500	
123			Work bench	2	0	2	1250	2500	
124			Mechanical Jack	2	0	2	1500	3000	
125			Tool Kit (Spanner, socket set, screw driver, plier, file, wrench, drill, tap set, hammer etc.)	4	0	4	2000	8000	
126			CUT SECTION of rear axle and differential	1	0	1	10000	10000	
127			pH Meter	1	0	1	500	500	
128			Turbidity Meter	1	0	1	5000	5000	
129	COMMON TO ALL BRANCH(CE, ME,PMT)	ENVIRONMENT ENGINEERING LABORATORY (COMMON TO ALL BRANCH)	Oven with Temperature Controller and Forced Air Circulation Type	1	0	1	20000	20000	
130			B.O.D. Incubator	1	0	1	25000	25000	
131			Water Analysis Kit	1	0	1	5000	5000	
132			High Volume Sampler	1	0	1	40000	40000	
133			Electrical Balance for weighing upto 1/10 of milligram	1	0	1	1000	1000	
134					Digital vernier calliper / Vernier calliper	4	0	4	2000
135			Digital micrometer / micrometer	4	0	4	2500	10000	
136			Height gauge	2	1	1	750	750	
137			depth gauge	2	0	2	500	1000	
138			Combination set	1	0	1	1000	1000	
139			bevel protector	1	1	0	1000	0	
140			Sine bar	1	1	0	1000	0	
141			Precision balls and rollers	1	0	1	500	500	
142			Surface plate	2	1	1	7500	7500	
143			Slip gauges set	1	1	0	10000	0	
144		METROLOGY LABORATORY	Comparator – Mechanical , Pneumatic	2	0	2	20000	40000	
145			Gear tooth vernier	1	0	1	2000	2000	
146	ME		Snap and ring gauges, Plug gauge, Thread gauge	2	0	2	750	1500	



147			Feeler gauge, radius gauge	1	0	1	1000	1000	
148			Angle plate	1	0	1	1000	1000	
149			Tool makers microscope	1	0	1	40000	40000	
150			Optical Profile projector	1	0	1	75000	75000	
151			Surface roughness tester	1	0	1	60000	60000	
152			Dial Bore Gauge with Accessories	1	0	1	10000	10000	
153			Autocollimator	1	0	1	50000	50000	
154			Thermocouple , Pyrometer apparatus	1	0	1	10000	10000	
155			Computer Aided Drawing (CAD) Software 30 User	1	0	1	50000	50000	
156		ENGINEERING DRAWING	Model of different wooder joints	1	0	1	1000	1000	
157			Model of different screw threads	1	0	1	1000	1000	
158	ME		Model of various locking devices	1	0	1	1000	1000	
159			Model of various joints	1	0	1	1000	1000	
160			Cut section Model of various couplings	1	0	1	3000	3000	
161		APPLIED MECHANICS LABORATORY	Apparatus for reaction at supports	1	0	1	5000	5000	
162	ME		Screw jack	1	0	1	1000	1000	
163			Single Purchase Winch Crab	1	0	1	4000	4000	
164		MECHANICAL WORKSHOP	Universal milling machine	1	0	1	125000	1E+05	
165	COMMON TO ALL BRANCH(CE, ME,PMT)		Shapers	2	0	2	100000	2E+05	
166			Radial drilling machine	1	0	1	25000	25000	
167			Universal cylindrical grinder	1	0	1	75000	75000	
168			Hydraulic surface grinder	1	0	1	50000	50000	
169			Power hacksaw	1	0	1	25000	25000	
170				CNC Simulation software	1	0	1	100000	1E+05
171			Dumpy level, quick setting level and engineers level-	17		15	3000	45000	
172		i) Dumpy level - 8							
173		Prismatic compass	15	0	15	1500	22500		
174		Planimeter	5	0	5	1500	7500		
175		Lavelling staves (All aluminium)	5	0	5	2500	12500		
176		Total Station	2	2	0	300000	0		
177		Ranging rods	60	8	52	250	13000		

178	CIVIL ENGG	SURVEY EQUIPMENT AND STORES	Pantagraph	2	0	2	1750	3500	
179			Optical square	5	0	5	1300	6500	
180			Abney level	5	2	3	2500	7500	
181			Tangent clinometer (Indian Pattern)	5	2	3	1000	3000	
182			Mirror stereoscope	1	0	1	20000	20000	
183			Telescopic Alidade	2	2	0	2000	0	
184			Metallic taps/Fibre glass/Invertape	20	4	16	750	12000	
185			Theodolite (Digital) Distomat	1	2	0	100000	0	
186			Electronics Distance Measurement (EDM)	1	0	1	1500	1500	
187			GPS Hands Instrument	1	0	1	400000	4E+05	
188	CIVIL ENGG	CIVIL ENGINEERING FABRICATION AND ERECTION SHOP	Masonry erection tools, such as iron pans, trowels, plumb bobs, showels, sets pick axes, corner squares etc.	10	0	10	1500	15000	
189			Carpenter's tool such as tenonsaw, planes screw drivers, chisel sets, sets marking guages, pliers, hammers, augers, bevel squares, files, drills etc.	10	0	10	1000	10000	
190			Plumber tools, plumbing vice, die and tap sets, pipe wrenches of different sets sizes, pipe cutters, spanner sets, hammer plier.	5	0	5	1000	5000	
191			Centering, shuttering and scaffolding (for an ordinary residential building)	1 SET	0	1	55000	55000	
192			Pipes and pipe fittings, valves, gulley traps, GI grating, manhole, covertraps, WC pan with foot rest, flushing cistern, urinal pan with cistern, taps, wash basin, water meter etc.	L.S			10000	10000	
193			Hoisting and conveying equipment tripod, hoist, pulleys, ladders, ballis etc.	L.S			10000	10000	
194			Steel fabrication equipment with fabricating small trusses, reinforcement cages, small girder, column beam connections, column truss connection	1 SET	0	1	10000	10000	

195			Floor grinding/polishing machine, spray guns etc	L.S				10000	10000	
196			Lovibond comparator (for colour determination)	1	0	1	87000	87000		
197			Colorimeter (for colour determination)	1	0	1	15000	15000		
198			Centrifuge	1	0	1	6000	6000		
199			Turbidimeter	1	0	1	12000	12000		
200			pH meter	1	0	1	8000	8000		
201			Jar test apparatus (Flocculator)	1	0	1	15000	15000		
202			Dissolved oxygen meter	1	0	1	15000	15000		
203			B.O.D incubator	1	0	1	26000	26000		
204			Water bath with digital controller	1	0	1	4500	4500		
205			Hot air oven	1	1	0	9000	0		
206			Hot plate	2	1	1	2000	2000		
207			Water sampler	1	0	1	2000	2000		
208			Water analysis kit	1	0	1	8000	8000		
209			Water distill	1	0	1	13000	13000		
210			Chemical Balance	1	1	0	3000	0		
211			Ring and Ball apparatus (with heating mantle)	1	0	1	2000	2000		
212			CBR apparatus with loading machine	1	0	1	23000	23000		
213			Flash point and fire point apparatus (Cleaveland type)	1	0	1	5000	5000		
214			Los angles Abrasion testing machine apparatus	1	0	1	40000	40000		
215			Water bath (Thermostatically controlled)	1	0	1	4500	4500		
216			Aggregate impact value testing apparatus with automatic blow counter	2	0	2	7000	14000		
217			Penetration value apparatus with timer	1	0	1	8000	8000		
218			Viscometer Capillary type	1	0	1	8000	8000		
219			Ductility machine	1	0	1	20000	20000		
220			Direct shear test apparatus	1	0	1	25000	25000		
223			Standard penetration test equipment	1	0	1	8000	8000		
225			Sand replacement method apparatus	2	0	2	3500	7000		

CIVIL ENGG

ENVIRONMENTAL  
ENGINEERING  
LABORATORY

CIVIL ENGG

ROADS AND SOILS  
LABORATORY

226			Liquid limit and plastic limit apparatus	2 each	0	2	5800	11600
227			Compaction apparatus using light compaction (Proctor Test)	2	0	2	6000	12000
229			Sieve shaker	2	0	2	20000	40000
230			Permeability apparatus	1	0	1	8000	8000
231			Proctor penetrometer	1	0	1	6000	6000
232			Core cutter apparatus	2	0	2	1800	3600
235			Liquid limit apparatus (Cone penetrometer method)	2	0	2	4000	8000
236			Vicat's Apparatus	4	0	4	8000	32000
237			Compaction factor apparatus (to determine the workability of concrete)	1	1	0	12000	0
238			Vee-Bee apparatus (to determine the workability of concrete)	1	0	1	25000	25000
239			Lechatlier's apparatus for determining soundness of cement IS 5514 & 4031	2	0	2	1000	2000
240			Standard Cone apparatus IS:2250-1982		0	0	5000	0
241	CIVIL ENGG	CONCRETE LABORATORY	Air permeability apparatus blain type as per IS 5536 for finness of cement	1	0	1	10000	10000
242			CONCRETE MIXER	1	0	1	10000	10000
243			FLANKINESS INDEX APPRATUS	1	0	1	5000	5000
244			ELONGATION INDEX APPRATUS	1	0	1	5000	5000
245			BAR BANDING AND CUTTER APPRATUS	1	0	1	8000	8000
246			BULK DENSITY APPRATUS	1	0	1	8000	8000
247			TABLE VIBRATOR	1	0	1	12000	12000
248			CONCRETE TEST HAMMER	1	0	1	8000	8000
249			ULTRASONIC PULSE APPRATUS	1	0	1	10000	10000
250			Kit of specimens od stones ( at least 10 types) kept in a wooden box labelled	4	0	4	2000	8000
251	CIVIL ENGG	BUILDING MATERIAL	Kit of specimen of timber of size 15x10x5 cm kept in wooden box labeled ( at least 10 types)	4	0	4	2000	8000
<b>कुल अनुमानित धनराशि रु0</b>								<b>8E+06</b>

**Project:- Preliminary Estimate of Govt. Polytechnic at Bhaundela, Firozabad**

**ABSTRACT OF COST**

**Frame Structure**

**Based on Plinth Area Rate U.P.P.W.D. as per Letter N. 1635-G/69 B.P. Wing 2015 Dated 10.09.2015**

<b>S. No.</b>	<b>Description</b>	<b>Qty.</b>	<b>Unit</b>	<b>Rate</b>	<b>Amount</b>
1	COST OF CONSTRUCTION OF G.F.	1175.85	SQM	15000.00	17637750.00
2	ADD FOR EXTRA HT. OF BUILDING ABOVE NORMAL HT OF 2.90M (3.20-2.90/0.30)X570	1175.85	SQM	570.00	670234.50
3	ADD FOR ANTITERMITE TREATMENT AT G.F. ONLY	1175.85	SQM	250.00	293962.50
4	ADD 5% FOR INTERNAL WATER SUPPLY & SEWARAGE SYSTEM ON TOTLA 'A'	5%	OF	17637750.00	881887.50
5	ADD 5% FOR EXTERNAL WATER SUPPLY & SEWARAGE SYSTEM ON TOTAL 'A'	5%	OF	17637750.00	881887.50
6	ADD FOR INTERNAL ELECTRIFICATION WORK @ 12.5% ON TOTAL 'A'	12.50%	OF	17637750.00	2204718.75
7	ADD 5% FOR INTERNALSITE DEVELOPMENT WORK	5%	OF	17637750.00	881887.50
8	ADD 5% FOR EXTERNAL SITE DEVELOPMENT WORK	5%	OF	17637750.00	881887.50
9	FOR VEHICLE PARKING	1%	OF	17637750.00	176377.50
10	FOR TOILET & RAMP	1%	OF	17637750.00	176377.50
11	ADD 2% FOR CONTINGENCIES	2%	OF	17637750.00	352755.00
<b>Grand Total</b>					<b>25039725.75</b>

