

# Estimated procurement budget projection for the equipment for the next 5 years (2021 to 2026)

## Department of Pharmaceutics and PTF

S.No.	Equipment	Qty	Tentative cost in Lakhs
1	RHEOMETER	1	20
2	RAMAN SPECTROSCOPY	1	80
3	Hg INTRUSION POROSIMETER	1	50
4	HIGH PNEUMATIC FDM 3D PRINTER	1	80
5	TENSIOMETER	1	20
6	ADVANCED SLS 3D PRINTER	1	35
7	BET analyzer	1	30
8	MORPHOLOGI	1	125
9	Hot stage Microscopy	1	45
10	Cryo mill	1	40
11	Electrospinning machine	1	20
12	Universal Tester	1	20
13	Cascade Impactor	1	50
14	Spray freezing unit	1	25
15	Moisture Analyser	1	5
16	Contact angle measurement analyzer	1	5
17	Dielectric spectroscopy	1	40
18	Circular dichroism spectroscopy	1	40
19	Analytical centrifuge	1	60
20	Microcalorimetry	1	40
21	UV visible spectrophotometer	1	10
22	Automatic dissolution testers	4	60
23	Type IV dissolution apparatus	1	100
24	Computers and Printers	5	6
25	Tables	20	6
26	Chairs	40	6
27	AC	10	10
28	UPLC with different detectors	2	100
29	Turfiscan	1	50
30	TEM	1	500
31	SEM with EDS	1	300
32	Atomic Force Microscopy (AFM)	1	200
	<b>Total</b>		<b>2178</b>

## Department of Pharmacology and Toxicology

S. No.	Name of equipments	Numbers	Approx. budget (in Lakhs)
1.	Plate Reader with live cell imaging and real-time cytometry	1	150
2.	Advanced version of multimode plate reader	1	40
3.	Optical Imaging System for Lab Animals	1	180
4.	Small Animal SPECT Imaging System	1	550
5.	Small Animal PET Imaging System	1	550
6.	PamChip Multiplex system for kinase activity profiling	1	700
7.	Pyrosequencing System (PyroMark)	1	300
8.	Scanning Electron Microscope (SEM)	1	300
9.	Transmission Electron Microscope (TEM)	1	700
10.	UV- Visible Spectroscopy	2	10
11.	Confocal laser scanning microscope	1	300
12.	FACS with cell sorter	1	80
13.	Fluorescence Microscope	1	35
14.	ChemiDoc Gel Imaging System	1	22
15.	All-in-One Imaging Systems	1	60
16.	High Content Imaging System	1	100
17.	Laser Doppler Imaging System	1	20
18.	Next Generation Sequencing System	1	200
19.	Cell metabolic energy (mitochondrial respiration and glycolysis) Analyzer (Seahorse)	1	200
20.	Automated Biochemical Analyzer	1	35
21.	Triple Quad LC-MS/MS	1	200
22.	Quantitative RT-PCR	1	22
23.	Nanodrop	1	8
24.	Plasma Jet for plasma therapy	1	20
25.	Biosafety cabinets type 3 (BSL3)	1	12
26.	Biosafety cabinets type 2 (BSL2)	3	18
27.	CO2 Incubators with accessories	3	18
28.	Inverted Microscope	1	5
29.	Autoclave	1	7
30.	Liquid Nitrogen Storage Systems for cells	1	5
31.	Electroporation System	1	20
32.	Non-refrigerated centrifuge	1	3
33.	Refrigerated centrifuge	1	7
34.	Ultracentrifuge	1	80
35.	Benchtop Minispin, Thermomixer, Heat Blocks	2	10
36.	Single Channel and Multichannel pipettes	5	5

37.	Hypoxia Chamber	1	20
38.	Inverted microscope	1	10
39.	Cold Room storage facility (walk in)	1	50
40.	Vertical electrophoresis units (Western blot system)	4	10
41.	Gel electrophoresis (horizontal) units	2	3
42.	Semi-dry protein transfer system	2	7
43.	Automated Cell Counter	1	6
44.	Ice cube maker machine	1	10
45.	Probe and water sonicators, homogenizers	1	5
46.	Hot air oven with shaking Incubator	2	4
47.	Molecular grade water purification system	1	45
48.	2-8 Degree Refrigerator	3	6
49.	-20 Degree C deep freezer (Vertical)	3	6
50.	Ultra Low Temperature Freezer (-80 Degree C) (Vertical)	2	18
51.	Individual Ventilated Cages (IVC) for Rats and Mice	4	45
52.	Automatic cage washer	2	10
53.	Automatic metabolic cages	5	50
54.	Small Animal Anesthesia Machines	3	10
55.	Animal Transfer Stations and Necropsy Tables	2	5
56.	Surgical microscope	1	15
57.	General Lab equipment (PH meter, Rocker, water bath, Stirrer, weighing balance, pipettes, filter systems vacuum pumps Vortex, aspirators etc.)	3	50
58.	UPS system	4	20
59.	Computers, Printers and Softwares	10	15
60.	Laboratory furniture's	Multiple	25
	<b>Total</b>		5417

## Department of Biotechnology

Sl. No.	Name of Equipment	Numbers	Approx. Price (in Cr.)
1	DNA Sequencing Machine	1	1.8 Cr.
2	Cell Metabolic Analyzer (Sea Horse)	1	1.8 Cr.
3	FACS With Cell Sorter	1	2.5 Cr.
4	Live Cell Imaging System+ Analysis Software	1	2.0 Cr.
5	LCMS-MS	1	6.5 Cr
6	Scanning Confocal Microscope with hydrolic stage and CO2 chamber	1	3.0 Cr
7	Phase Holographic Microscope	1	0.4 Cr
8	High content screening System	1	7.0 Cr
9	Small scale bioreactor 5-10 ltr. Capacity	1	0.5 Cr
10	Walk-in Cold Room facility	1	0.5 Cr
11	-80 Degree C Refrigerator	4	0.5 Cr
12	-20 Degree C Refrigerator	6	0.12 Cr
13	4 Degree Refrigerator	6	0.12 Cr
14	Multi-Mode Plate Reader	2	0.6 Cr
15	Ultracentrifuge	1	0.8 Cr
16	Large Cold Centrifuge	4	0.3 Cr
17	Sonicator and Homogenizer	2	0.2 Cr
18	Ice Maker Machine	2	0.1 Cr
19	Chemi-Doc	1	0.5 Cr
20	Droplet PCR	1	0.5 Cr
21	RT PCR	1	0.25 Cr
22	Gel Electrophoresis Unites	4	0.08 Cr
23	Class II Biosafety Hood	4	0.4 Cr
24	CO2 Incubators	3	0.3 Cr
25	Automated Cell Counter	2	0.06 Cr
26	Hypoxia Chamber	1	0.2 Cr
27	Animal Imaging with PET	1	2.0 Cr
28	Metabolic Cage	1	1.8 Cr
29	Nanodrop-Nucleic Acid analyzer	2	0.1 Cr
30	Bacterial Culture Hood	2	0.1 Cr
31	Bacterial Culture Incubator+ Shaker	2	0.20 Cr
32	Electroporation System	1	0.2 Cr
33	Inverted Microscope	2	0.1 Cr
34	Automated Autoclaving Systems	2	0.3 Cr
35	Automated Lab ware washing system	2	0.3 Cr
36	High End Computers	6	0.24 Cr
37	All-in-One Printers	8	0.05 Cr
38	Laptops+ Desktops	5+5	0.15 Cr

<b>39</b>	<b>Lab Furniture+ Room Temperature Storage Units</b>	<b>For 4 labs</b>	<b>0.25 Cr</b>
<b>40</b>	<b>Projectors</b>	<b>3</b>	<b>0.05 Cr</b>
<b>41</b>	<b>Water baths and Bead Bath for cell lab and general labs</b>	<b>6</b>	<b>0.1 Cr</b>
<b>42</b>	<b>Small Equipment (Rocker, Vortex, Stirrer, PH meter, weighing balance, pipettes, vacuum pumps, aspirators, filter systems etc.)</b>	<b>multiple</b>	<b>0.5 Cr</b>
<b>43</b>	<b>Molecular Grade Water Purification System</b>	<b>2</b>	<b>0.4 Cr</b>
<b>44</b>	<b>Air Conditioners for Special Labs</b>	<b>6</b>	<b>0.12 Cr</b>
<b>45</b>	<b>Liquid Nitrogen Storage System+</b>	<b>4</b>	<b>0.3 Cr</b>

## Department of Medicinal Chemistry

Sl. No.	Name of Equipment	Numbers	Approx. Price (in Cr.)
1	Rotary evaporator	10	1.0
2	NMR	1	8.0
3	LCMS-MS	1	6.5
4	XRD (single crystal)	1	1.5
5	UV Visible	2	0.2
6	FT-IR	2	0.4
7	CHN analyzer	1	0.35
8	Magnetic Stirrer	30	0.3
9	Flash Chromatography	1	0.2
10	Spectrofluorometer	1	0.2
11	Polarimeter	1	0.25
12	Chiller (-80 °C)	4	0.4
13	-20 °C Refrigerator	6	0.12
14	4 °C Refrigerator	6	0.12
15	Ice Maker Machine	2	0.1
16	Glovebox	1	0.25
17	Millipore Water System	1	0.2
18	Small Equipment (Water bath, UV cabinet, PH meter, pipettes, vacuum pumps, aspirators, filter systems etc.)	multiple	1.0
19	Weighing balance	5	0.1
20	Molecular Modelling and other Chemistry Soft ware	multiple	2.0
21	Automated Lab ware washing system	2	0.3
22	Desktops	30	0.3
23	Laptops	6	0.1
24	Printers	8	0.05
25	Projectors	3	0.05
26	Lab Furniture	For 3 labs	0.2
27	Liquid Nitrogen Storage System+	2	0.2

## Department of Pharmacy Practice

Financial Year: 2021-22

Sr. No.	Description of Item	Broad Specification Parameters	Qty	Accounting Unit (Nos/ Kilo-meters/ Ton..)	Estimated Value of Procurement INR (Lakhs)
1	Desktop Computers	Intel Core i7 Processor, 3.4GHz, 8M Cache	20	Numbers	15
2	RT-PCR		1	Number	14
3	PCR		1	Number	5
4	Biochemistry Auto analyzer		1	Number	40
5	LexiComp Database	15 Databases 8 Clinical Support Modules	1	Number	1.5
6	SPSS Software	Version 27	1	Number	0.8
7	Graphpad Prism	Version 9.0.0	1	Number	0.3
8	SigmaPlot	Version 14.5	1	Number	0.5
9	Automated lab ware washing system		2		35
10	Molecular grade water purification system		1		30
11	Liquid nitrogen storage system		1		30

Financial Year: 2022-23

Sr. No.	Description of Item	Broad Specification Parameters	Qty	Accounting Unit (Nos/ Kilo-meters/ Ton..)	Estimated Value of Procurement INR (Lakhs)
1	Desktop Computers	Intel Core i7 Processor, 3.4GHz, 8M Cache	10	Numbers	7.5
2	Western blot unit		1		6
3	Refrigerated Centrifuge		1		8

4	-80 deep freezer		1		10
5	LexiComp Database	15 Databases 8 Clinical Support Modules	1	Number	1.5
6	SPSS Software	Version 27	1	Number	0.8
7	Graphpad Prism	Version 9.0.0	1	Number	0.3
8	SigmaPlot	Version 14.5	1	Number	0.5

**Financial Year: 2023-24**

Sr. No.	Description of Item	Broad Specification Parameters	Qty	Accounting Unit (Nos/ Kilo-meters/ Ton..)	Estimated Value of Procurement INR (Lakhs)
1	Luminex instrument		1		40
2	Hematology analyzer		1		20
3	Urine analyzer		1		10
4	LexiComp Database	15 Databases 8 Clinical Support Modules	1	Number	1.5
5	SPSS Software	Version 27	1	Number	0.8
6	Graphpad Prism	Version 9.0.0	1	Number	0.3
7	SigmaPlot	Version 14.5	1	Number	0.5

**Financial Year: 2024-25**

Sr. No.	Description of Item	Broad Specification Parameters	Qty	Accounting Unit (Nos/ Kilo-meters/ Ton..)	Estimated Value of Procurement INR (Lakhs)
1	Bone density meter		1		20
2	LexiComp Database	15 Databases 8 Clinical Support Modules	1	Number	1.5
3	SPSS Software	Version 27	1	Number	0.8



4	Graphpad Prism	Version 9.0.0	1	Number	0.3
5	SigmaPlot	Version 14.5	1	Number	0.5

**Financial Year: 2025-26**

<b>Sr. No.</b>	<b>Description of Item</b>	<b>Broad Specification Parameters</b>	<b>Qty</b>	<b>Accounting Unit (Nos/ Kilo-meters/ Ton..)</b>	<b>Estimated Value of Procurement INR (Lakhs)</b>
1	Lab on wheels	Bus and Equipment	1	Number	50
2	LexiComp Database	15 Databases 8 Clinical Support Modules	1	Number	1.5
3	SPSS Software	Version 27	1	Number	0.8
4	Graphpad Prism	Version 9.0.0	1	Number	0.3
5	SigmaPlot	Version 14.5	1	Number	0.5

**Total 35.60 Crore**

## Department of Pharmaceutical analysis

Sr. no.	Particular/item	Number	Tentative price
1.	SepBOX D-1000	01	150 lakh
2.	Ultra High performance liquid chromatograph (UPLC/UHPLC) with multiple detection system	05	350 lakh
3.	GC-MS	01	100 lakh
4.	Modulated DSC/TGA	01	100 lakh
5.	2D-LC-ESI-HR-MS/MS (Q-ToF)	01	250 lakh
6.	Raman spectrometer	01	80 lakh
7.	HPTLC-MS	01	200 lakh
8.	Vibrational CD polarimeter	01	100 lakh
9.	Surface plasmon response spectrometer	01	200 lakh
10.	RT-PCR with western blotting techniques	01	30 lakh
11.	Double beam UV spectrophotometer (with temperature control)	01	10 lakh
12.	Ultrasonicator	02	40 lakh
13.	Ultracentrifuge	01	80 lakh
14.	Automated dissolution apparatus	02	60 lakh
15.	Preparative HPLC	02	150 lakh
16.	Fume hood	02	6 lakh
17.	Biosafety cabinet	02	15 lakh
18.	Incubator shaker	02	20 lakh
19.	Bacterial hood	01	2 lakh
20.	Colony counter	01	1 lakh
21.	LC-MS/MS	02	250 lakh
22.	Platelet aggregation meter	01	5 lakh
23.	Computer	20	10 lakh
24.	Printer	01	5 lakh
25.	UPS (60 KV)	01	7 lakh
26.	Bioplex-multiplex for protein separation	01	50 lakh
27.	Evaporative vapour analyser	01	50 lakh
28.	4 °C freezer	05	12 lakh
29.	-20 °C freezer	2	5 lakh
30.	-80 °C freezer	1	5 lakh
31.	Refrigerator	03	50 thousands
32.	Micropipettes	30	10 lakh
33.	Magnetic stirrer	20	5 lakh
34.	Tensile strength tester	01	10 lakh
35.	Process analytical tool-complete setup	01	150 lakh
36.	SPME apparatus	01	35 lakh

Total 26.03 crore

## **Department of Medical Devices**

<b>Sr. no.</b>	<b>Particular/item</b>	<b>Number</b>	<b>Tentative price (Rs)</b>
1.	Bone marrow cell separator	01	20 lakh
2.	Pulse oximeter-Portable	10	0.5 lakh
3.	Pulse oximeter	01	2 lakh
4.	Pace makers for heart	01	5 lakh
5.	Raman spectroscopy	01	80 lakh
6.	Respirators	01	6 lakh
7.	Defibrillators	01	2 lakh
8.	PET equipment	01	164 lakh
9.	Cardiac stent	01	1 lakh
10.	FE TEM	01	700 lakh
11.	MRI	01	240 lakh
12.	Infusion pump	01	3 lakh
13.	Heart lung machine	01	23 lakh
14.	Holter recorder	01	6 lakh
15.	C arm X-ray	01	25 lakh
16.	Cath lab	01	100 lakh
17.	Ultrasound scan	01	25 lakh
18.	Brain wave machine	01	15 lakh
19.	Cell separator	01	18 lakh
20.	Blood pressure monitoring device	05	1 lakh
21.	Computerized tomography (CT) scan	01	125 lakh
22.	Dissolution apparatus	01	30 lakh
23.	Differential blood cell counter	01	10 lakh

24.	ELISA reader	01	5 lakh
25.	Electrocardiogram (ECG) machine	01	10 lakh
26.	Electroencephalogram (EEG) machine	01	10 lakh
27.	Fluorescence spectrophotometer	01	15 lakh
28.	Glucometer	05	1 lakh
29.	Haemoglobin meter	02	1 lakh
30.	High Performance Liquid Chromatography	01	70 lakh
31.	Magnetic stirrer	02	1.2 lakh
32.	Nebuliser	08	1 lakh
33.	Neubauer chamber	07	1 lakh
34.	pH Meter	02	2 lakh
35.	Double beam UV spectrophotometer	01	10 lakh
36.	Digital Portable X Ray Machine, Radiography	01	10 lakh
37.	Defibrillators	01	2 lakh
38.	Corneal Topography System	01	10 lakh
39.	Hearing aid machine	02	2 lakh
40.	Endoscopic device	01	10 lakh
41.	Video Laryngoscope	01	5 lakh
42.	Olympus Flexible Bronchoscope	01	10 Lakh
43.	Felix International Pneumatic Lithotripter Digital	01	2 lakh
<b>Total</b>			<b>1779 lakh</b>

# Grand Total (in crore)

<b>S. No.</b>	<b>Departments</b>	<b>Budget Projections</b>
1	Pharmacology and Toxicology	54.17
2	Biotechnology	40.09
3	Pharmacy Practice	35.60
4	Pharmaceutical Analysis	26.03
5	Medicinal Chemistry	24.39
6	Pharmaceutics and PTF	21.78
7	Medical Devices	17.79
	<b>Total</b>	<b>219.85</b>