

Annexure

Equipments required for conducting practicals of FDP Botany and Ayurvedic pharmacy(pass) Practical

Sl. No.	Name of item	Justification	Quantity
Core I - Botany			
1	Colorimeter	Quantification of chlorophyll	1
2	Visible Spectrophotometer	Quantification of chlorophyll/ protein/ Phenols etc	1
3	Electronic balance 3 digit	chemicals	1
4	Pressurre Cooker (10 L /20 L)	tissue culture (small quantity)	1
5	with LED illumination	Essential for B.Sc. Cytology practicals	1
6	and low power objectives	Essential for practicals of B.Sc. all semesters	1 for each student
7	Dissection microscope	Essential for B.Sc. Taxonomy practicals	1 for each student
8	Lab	Bioinformatics practicals	1
9	Refrigerator	Storing heat labile chemicals / solutions	1
10	pH meter	pH of media,	1
11	Camera lucida	and BSc	1
12	Micrometer	Measurement of microscopic objects	1
13	Horticultural tools	Demonstration of horticulture practicals	1 set mentioned in the syllabus
14	Ganong's potometer	Minor apparatuses for plant Physiology practicals	1
15	Ganong's light screen		1
16	Wilmott's bubbler		1
17	Clinostat		1
18	Arc Auxanometer		1
19	Kuhn's fermentation vessel		1
20	Ganong's respirometer		1
Core II - Ayurvedic Pharmacy			
1	Binocular Microscope	For Analysis of medicinal plant products	1 each per student
2	Dissecting Microscope	To work out the flowers	1 each per student
3	Bunsen burner (electric)	For Ash test	1
4	Microtome	To take sections of tissues	1
5	Research Microscope with camera	To take photos of microscopic structures	1
6	Soxhlet apparatus	Extractions of medicinal plants	1
7	Dean and stark apparatus	Extractions of medicinal plants	1
8	Clevenger apparatus	Extractions of medicinal plants	1
9	Water bath	Heating of samples at specific tempertures	1
10	Hot air oven	Drying of medicinal plants	1
11	Distillation apparatus	To prepare pure water for experiments	1
12	TLC unit	To carryout TLC experiment	1
13	UV chamber	To visualise bands under UV light	1
14	Haemocytometer for Blood count	To count blood cells	1
15	Thermometer	Measurement of body temperature	1 each for 5 students
16	Stethoscope	Measurement of heart beat	1 each for 5 students
17	Sphigmomanometer	Measurement of blood pressure	1 each for 5 students

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Desirable equipments for demonstration of practicals			
1	Laminar air flow hood	Essential for demonstration of Microbiology and Tissue culture practicals	1
2	Platform shaker 3' X 3' (with clamps to hold 500 ml, 250 ml and 150 ml flasks)	For Demonstration of tissue culture and Microbiology experiments	1
3	Autoclave (Horizontal / Vertical)	For Demonstration of sterilization of media for microbiology and tissue culture (large quantity)	1
4	Rotary microtome	Demonstration of Cutting sections of paraffin embedded sections	1
5	Sledge microtome	Demonstratio of cutting sections of woody materials	1
6	Electrophoresis - PAGE with power pack and accessories	Demonstrating practicals of Protein electrophoresis	1
7	Electrophoresis - AGE with power pack and accessories	Demonstrating practicals of DNA electrophoresis	1
8	PCR (Gradient)	Practical/Demonstration of PCR in MSc and BSc practicals	1
9	Tissue Culture rack	Incubating culture vessels in controlled conditions demonstratio of tissue culture experiments	1
10	Research Microscope with camera (preferably imported)	To demonstrate photomicrography.	1
11	Electronic balance 4 digit	Weighing accurate quantity of fine chemicals for demonstrating microbiology and tissue culture experiments	1