

Faculty of Technology

M.Tech. Biotechnology

(R 2017) Semester – I

BY5111 Preparative and Analytical Techniques In Biotechnology

(Requirements for a batch of 25 students)

Sl. No.	Description of Equipment	Quantity required (R)	Quantity available (A)	Deficiency (R - A)
1.	Purification columns	25		
2.	microplate reader	1		
3.	spectrometer (Visual and UV range, quartz or disposable cuvettes)	1		
4.	PAGE apparatus, Western blot apparatus (dry/semi-dry/wet)	2		
5.	Bench top centrifuge	1		
6.	Refrigerated Centrifuge (with Falcon tube rotors)	1		
7.	Purification matrix (Amersham) Ion-exchange, gel filtration and Affinity chromatography-500ml (for each) consumables, TLC plates and chambers	15		
8.	Restriction enzymes (a minimum of 2 enzymes atleast required)	2		
9.	DNA markers (1 quantity each of 100 bp ladder and 1kb ladder) as required	1		

Faculty of Technology
M.Tech. Biotechnology
(R 2017) Semester – II
BY5211 IMMUNOTECHNOLOGY LABORATORY
(Requirements for a batch of 25 students)

Sl. No.	Description of Equipment	Quantity required (R)	Quantity available (A)	Deficiency (R - A)
1.	Microscopes	10		
2.	restrainers for demo experiments for routes of administrations (mouse, rat,rabbit), animal anesthetics, disposable syringes for animal	25		
3.	microplate reader	1		
4.	spectrometer (Visual and UV range, quartz or disposable cuvettes)	1		
5.	PAGE apparatus, Western blot apparatus (dry/semi-dry/wet)	2		
6.	Bench top centrifuge	1		
7.	Refrigerated Centrifuge (with Falcon tube rotors)	1		
8.	Purification matrix (Amersham) for IgG, Protein A columns	15		
9.	Haemocytometer	10		
10.	required strains & consumables, TLC plates and chambers	15		
11.	Ficoll-Hypaque	1		
12.	CO2 incubator	1		
13.	Culture (Laminar air flow chamber)	1		
14.	biosafety cabinet	1		

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(R 2017) Semester – III

BY5311 ADVANCED GENETIC ENGINEERING LABORATORY

(Requirements for a batch of 25 students)

Sl. No.	Description of Equipment	Quantity required (R)	Quantity available (A)	Deficiency (R - A)
1.	Microscopes	7		
2.	PCR	1		
3.	purification columns	1		
4.	microplate reader	1		
5.	UV spectrometer	1		
6.	PAGE apparatus	1		
7.	Western blot apparatus (dry/semi-dry/wet)	1		
8.	Southern blot apparatus	1		
9.	centrifuge	1		
10.	Haemocytometer	1		

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(R 2017) Semester – III

BY5312 BIOPROCESS AND DOWNSTREAM PROCESSING LABORATORY

(Requirements for a batch of 25 students)

Sl. No.	Description of Equipment	Quantity required (R)	Quantity available (A)	Deficiency (R - A)
1.	Centrifuge	1		
2.	Column for purification	1		
3.	Ultrasonicator	1		
4.	Homogeniser	1		
5.	Microfiltration capsule	1		
6.	Hot air oven	1		
7.	Incubator	1		
8.	Laminar air flow chamber	1		
9.	HPLC	1		