

ANNEXURE M. Sc. BIOTECHNOLOGY

Equivalence of Syllabus / papers between CBS & CBCS syllabus for desirous students (CBS Pattern students (introduced in the Year 2012-2013) in CBCS Pattern (introduced in the year 2015-16 at M.Sc Semester I and II and in the year 2016-17, at M.Sc. Semester –III and Semester IV

If the candidate has failed in any of the papers mentioned below (As described in Point no. 22 'b', 'c', 'd', and 'e')						Then, the candidate shall appear and clear the paper shown in the respective row as equivalent paper						
M.Sc. BIOTECHNOLOGY CBS Pattern : Semester -I						M.Sc. BIOTECHNOLOGY Choice Based Credit System (CBCS)						
S. No.	Code No.	Paper	Name of Paper	Total Marks	Credits	Equivalence To	Sem	Code No.	Paper	Name of Paper	Total Marks	Credits
01	-	Paper I	Cell Biology and Enzymology	100	4		Sem I	(Core1) 1T1	Paper I	Cell Biology and Enzymology	80+ 20	4
02	-	Paper II	Molecular Biology	100	4		Sem I	(Core2) 1T2	Paper II	Molecular Biology	80+20	4
03	-	Paper III	Biomolecules	100	4		Sem I	(Core3) 1T3	Paper III	Biomolecules	80+20	4
04	-	Paper IV	Biophysical Technique	100	4		Sem I	(Core4) 1T4	Paper IV	Biophysical Technique	80+20	4
05	-	Practical-I	Cell Biology & Enzymology	80+ 20	4		Sem I	(Pract. Core 1&2) 1P1	Practical-I	Cell Biology & Enzymology	100	4
06	-	Practical-II	Macromolecules & Analytical Techniques	80+20	4		Sem I	(Pract. Core 3&4) 1P2	Practical-II	Macromolecules & Analytical Techniques	100	4
07	-	Seminar-I		25	1		Sem I	(Seminar-1) 1S1	Seminar-I	Seminar-I	25	1
M.Sc. BIOTECHNOLOGY CBS Pattern : Semester -II						M.Sc. BIOTECHNOLOGY Choice Based Credit System (CBCS)						
S. No.	Code No.	Paper	Name of Paper	Total Marks	Credits	Equivalence To	Sem	Code No.	Paper	Name of Paper	Total Marks	Credits
01	-	Paper V	Microbiology	100	4		Sem II	(Core5) 2T1	Paper I	Microbiology	80+20	4
02	-	Paper VI	Industrial Biotechnology and Biostatistics	100	4	Sem III	(Core Elective 1) 3T3	Paper III	(Core Elective A) Industrial Biotechnology I	80+20	4	

03	-	Paper VII	Immunology	100	4
04	-	Paper VIII	Molecular Biology & Bioinformatics	100	4
05	-	Practical-III	Microbiology & Immunology	80+20	4
06	-	Practical-IV	Molecular Biology & Bioinformatics	80+20	4
07	-	Seminar-II	-----	25	1

Sem II	(Core 6) 2T2	Paper II	Immunology	80+20	4
Sem II	(Core8) 2T4	Paper IV	Applied Molecular Biology	80+20	4
Sem II	(Pract. Core 5&6) 2P1	Practical-III	Microbiology & Immunology	100	4
Sem II	(Pract. Core 7&8) 2P2	Practical-IV	Genetic Engineering & Molecular Biology	100	4
Sem II	(Seminar-2) 2S1	Seminar 1	Seminar-II	25	1

M.Sc. BIOTECHNOLOGY CBS Pattern : Semester -III

M.Sc. BIOTECHNOLOGY Choice Based Credit System (CBCS)

S. No.	Code No.	Paper	Name of Paper	Total Marks	Credits
01	-	Paper IX	Animal Biotechnology	100	4
02	-	Paper X	Plant Biotechnology	100	4
03	-	Paper XI	Genetic Engineering-I	100	4
04	-	Paper XII	Genetic Engineering-II	100	4
05	-	Practical V	Animal & Plant Biotechnology	80+20	4
06	-	Practical VI	Genetic Engineering	80+20	4
07	-	Seminar-III		25	1

Sem	Code No.	Paper	Name of Paper	Total Marks	Credits
Sem-IV	(Core11) 4T1	Paper IX	Animal Biotechnology	80+20	4
Sem-III	(Core10) 3T2	Paper X	Plant Biotechnology	80+20	4
Sem-II	(Core7) 2T3	Paper XI	Fundamentals of Genetic Engineering	80+20	4
Sem-III	(Core9) 3T4	Paper XII	Genetic Engineering and its Applications	80+20	4
Sem-III	(Pract. Core 9&10) 3P1	Practical V	Genetic Engineering & Plant Biotechnology	100	4
Sem-II	(Pract. Core 7&8) 2P2	Practical VI	Genetic Engineering & Molecular Biology	100	4
Sem-III	(Seminar-3) 3S1	Seminar-III	Seminar-III	25	1

Equivalence To

M.Sc. BIOTECHNOLOGY CBS Pattern : Semester -IV						M.Sc. BIOTECHNOLOGY Choice Based Credit System (CBCS)						
S. No.	Code No.	Paper	Name of Paper	Total Marks	Credits	Equivalence To	Sem	Code No.	Paper	Name of Paper	Total Marks	Credits
01	-	Paper XIII	Environmental Science & Bioresources	100	4		Sem-III	(Core Elective 1) 3T3	Paper XIII	(Core Elective B) Environmental Biotechnology-I	80+20	4
02	-	Paper XIV	Applied Environmental Biotechnology	100	4		Sem-IV	(Core Elective 2) 4T3	Paper XIV	(Core Elective B) Environmental Biotechnology-II	80+20	4
03	-	Paper XV	Environmental Monitoring & Management	100	4		Sem-III	(Core Elective 1) 3T3	Paper XV	(Core Elective B) Environmental Biotechnology-I	80+20	4
04	-	Paper XVI	Ethics, Patenting and Bio-Entrepreneurship	100	4		Sem-IV	(Core 12) 4T2	Paper XVI	Biostatistics , Bioinformatics, Ethics & Patenting	80+20	4
05	-	Practical VII	Environmental Biotechnology	80+20	4		Sem-III	(Pract. Core Elective 1) 3P2	Practical VII	Industrial Biotechnology OR Environmental Biotechnology	100	4
06	-	Project	Project Work	80+20	4		Sem-IV	4PROJ1	Project	Project Work	100	4
07	-		Seminar IV				Sem-IV	(Seminar-4) 4S1	Seminar IV	Seminar-IV	25	1