

KARPAGAM ACADEMY OF HIGHER EDUCATION
DEPARTMENT OF BIOCHEMISTRY
(Scheme of Examination for 2016- 2017 onwards)
B.Sc., BIOCHEMISTRY CURRICULUM

6

Course code	Name of the course	Hrs / week	Marks			Exam (h)	Credit
			CIA	ESE	Total		
SEMESTER – I							
16LSU 101	Language -I	04	40	60	100	3	4
16ENU101	English	04	40	60	100	3	4
16BCU101	Molecules of Life	04	40	60	100	3	4
16BCU102	Cell biology	04	40	60	100	3	4
16BCU103	Membrane Biology and Bioenergetics	04	40	60	100	3	4
16BCU111	Molecules of Life- Practical	03	40	60	100	3	2
16BCU112	Cell biology - Practical	03	40	60	100	3	2
16BCU113	Membrane Biology and Bioenergetics - Practical	04	40	60	100	3	2
	Semester total	30	320	480	800	-	26
SEMESTER II							
16LSU 201	Language - II	04	40	60	100	3	4
16BCU201	Proteins	04	40	60	100	3	4
16BCU202	Enzymes	04	40	60	100	3	4
16BCU203	Human Physiology	04	40	60	100	3	4
16BCU211	Proteins - Practical	03	40	60	100	3	2
16BCU212	Enzymes- Practical	03	40	60	100	3	2
16BCU213	Human Physiology - Practical	04	40	60	100	3	2
16AEC 201	Environmental Studies	04	40	60	100	3	4
	Semester total	30	320	480	800	-	26
SEMESTER – III							
16BCU301	Metabolism of Carbohydrates and Lipids	04	40	60	100	3	4
16BCU302	Metabolism of Amino acids and Nucleic acids	04	40	60	100	3	4
16BCU303	Hormone: Biochemistry and Function	04	40	60	100	3	4
16BCU311	Metabolism of Carbohydrates and Lipids - Practical	04	40	60	100	3	2
16BCU312	Metabolism of Amino acids and Nucleic acids- Practical	04	40	60	100	3	2
16BCU313	Hormones: Biochemistry and Function- Practical	04	40	60	100	3	2
16BCU304A	Tools and Techniques in Biochemistry	03	40	60	100	3	3
16BCU304B	Concepts in Genetics						
16BCU314A	Tools and Techniques in Biochemistry - Practical	03	40	60	100	3	1
16BCU314B	Concepts in Genetics - Practical						
	Semester total	30	320	480	800	-	22
SEMESTER – IV							
16BCU401	Gene Organization, Replication and Repair	04	40	60	100	3	4
16BCU402	Gene Expression and Regulation	04	40	60	100	3	4
16BCU403	Immunology	04	40	60	100	3	4

16BCU411	Gene Organisation, Replication and Repair- Practical	04	40	60	100	3	2
16BCU412	Gene Expression and Regulation- Practical	04	40	60	100	3	2
16BCU413	Immunology - Practical	04	40	60	100	3	2
16BCU404A	Bioinformatics	03	40	60	100	3	3
16BCU404B	Protein Purification Techniques						
16BCU414A	Bioinformatics - Practical	03	40	60	100	3	1
16BCU414B	Protein Purification Techniques - Practical						
	Semester total	30	320	480	800	-	22
SEMESTER – V							
16BCU501A	Clinical Biochemistry	03	40	60	100	3	3
16BCU501B	Biochemical Correlation of Diseases						
16BCU502A	Basic Microbiology	04	40	60	100	3	4
16BCU502B	Nutritional Biochemistry						
16BCU503A	Plant Biochemistry	04	40	60	100	3	4
16BCU503B	Advanced Cell Biology						
16BCU504A	Molecular basis of non-infectious human diseases	04	40	60	100	3	4
16BCU504B	Molecular basis of infectious diseases						
16BCU511A	Clinical Biochemistry- Practical	03	40	60	100	3	1
16BCU511B	Biochemical Correlation of Diseases- Practical						
16BCU512A	Basic Microbiology- Practical	04	40	60	100	3	2
16BCU512B	Nutritional Biochemistry- Practical						
16BCU513A	Plant Biochemistry-- Practical	04	40	60	100	3	2
16BCU513B	Advanced Cell Biology- Practical						
16BCU514A	Molecular basis of non-infectious human diseases - Practical	04	40	60	100	3	2
16BCU514B	Molecular basis of infectious diseases - Practical						
	Semester total	30	320	480	800	-	22
SEMESTER – VI							
16BCU601A	Genetic Engineering and Biotechnology	03	40	60	100	3	3
16BCU601B	Research Methodology						
16BCU602A	Biostatistics	04	40	60	100	3	4
16BCU602B	Fundamentals of nanotechnology						
16BCU603A	Drug Biochemistry	04	40	60	100	3	4
16BCU603B	Food Preservation Technology						
16BCU611A	Genetic Engineering and Biotechnology- Practical	03	40	60	100	3	1
16BCU611B	Research Methodology - Practical						
16BCU612A	Biostatistics- Practical	04	40	60	100	3	2
16BCU612B	Fundamentals of nanotechnology- Practical						
16BCU613A	Drug Biochemistry- Practical	04	40	60	100	3	2
16BCU613B	Food Preservation Technology- Practical						
16BCU691	Project	08	40	60	100	-	6
ECA / NCC / NSS / Sports / General interest etc							Good
	Semester total	30	280	420	700		22

	G. Total	1880	2820	4700	-	140
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Code: 16BCU101

16	-Academic Year
BC	-Biochemistry
U	- Bachelor's Degree
First Digit	- Semester number (1, 2, 3 and)
Second digit	- Theory (0); Practical (1); Project (9)
Last digit	- Paper number in the concerned semester (1, 2...)

SKILL ENHANCEMENT COURSE

Semester	Subject Code	Skill Enhancement Course
III	16BCU304A	Tools and Techniques in Biochemistry
	16BCU304B	Concepts in Genetics
	16BCU314A	Tools and Techniques in Biochemistry - Practical
	16BCU314B	Concepts in Genetics - Practical
IV	16BCU404A	Bioinformatics
	16BCU404B	Protein Purification Techniques
	16BCU414A	Bioinformatics- Practical
	16BCU414B	Protein Purification Techniques- Practical
V	16BCU501A	Clinical Biochemistry
	16BCU501B	Biochemical Correlations and Diseases
	16BCU511A	Clinical Biochemistry- Practical
	16BCU511B	Biochemical Correlations and Diseases- Practical
VI	16BCU601A	Genetic Engineering and Biotechnology
	16BCU601B	Research Methodology
	16BCU611A	Genetic Engineering and Biotechnology- Practical
	16BCU611B	Research Methodology - Practical

DISCIPLINE SPECIFIC ELECTIVE

Semester	Subject Code	Discipline Specific Elective
V	16BCU502A	Basic Microbiology
	16BCU502B	Nutritional Biochemistry
	16BCU512A	Basic Microbiology- Practical
	16BCU512B	Nutritional Biochemistry- Practical
V	16BCU503A	Plant Biochemistry
	16BCU503B	Advanced Cell Biology
	16BCU513A	Plant Biochemistry- Practical
	16BCU513B	Advanced Cell Biology- Practical
V	16BCU504A	Molecular basis of non-infectious human diseases
	16BCU504B	Molecular basis of infectious diseases
	16BCU514A	Molecular basis of non-infectious human diseases- Practical
	16BCU514B	Molecular basis of infectious diseases- Practical
VI	16BCU602A	Biostatistics
	16BCU602B	Fundamentals of nanotechnology
	16BCU612A	Biostatistics- Practical

	16BCU612B	Fundamentals of nanotechnology- Practical
VI	16BCU603A	Drug Biochemistry
	16BCU603B	Food Preservation Technology
	16BCU613A	Drug Biochemistry- Practical
	16BCU613B	Food Preservation Technology- Practical
	16BCU691	Project

Continuous Internal Assessment Marks

S.No	Category	Marks
1	Assignment	5
2	Attendance	5
3	Seminar	5
4	CIA I	8
5	CIA II	8
6	CIA III	9
Total Marks		40

End Semester Examinations

1	Part A 20 X 1 = 20 Online Examination	20
2	Part B 5 X 2 = 10	10
3	Part C 5 X 6 = 30 Either A or B type	30
	Total	60