

KARPAGAM ACADEMY OF HIGHER EDUCATION
DEPARTMENT OF BIOCHEMISTRY
(Scheme of Examination for 2017- 2018 onwards)
B.Sc., BIOCHEMISTRY CURRICULUM

Course code	Name of the course	Hrs / week	Marks			Exam (h)	Credit
			CIA	ESE	Total		
SEMESTER – I							
17LSU 101	Language -I	04	40	60	100	3	4
17ENU101	English	04	40	60	100	3	4
17BCU101	Molecules of Life	04	40	60	100	3	4
17BCU102	Cell biology	04	40	60	100	3	4
17BCU103	Membrane Biology and Bioenergetics	04	40	60	100	3	4
17BCU111	Molecules of Life- Practical	03	40	60	100	3	2
17BCU112	Cell biology - Practical	03	40	60	100	3	2
17BCU113	Membrane Biology and Bioenergetics - Practical	04	40	60	100	3	2
	Semester total	30	320	480	800	-	26
SEMESTER – II							
17LSU 201	Language - II	04	40	60	100	3	4
17BCU201	Proteins	04	40	60	100	3	4
17BCU202	Enzymes	04	40	60	100	3	4
17BCU203	Human Physiology	04	40	60	100	3	4
17BCU211	Proteins - Practical	03	40	60	100	3	2
17BCU212	Enzymes- Practical	03	40	60	100	3	2
17BCU213	Human Physiology - Practical	04	40	60	100	3	2
17AEC 201	Environmental Studies	04	40	60	100	3	4
	Semester total	30	320	480	800	-	26
SEMESTER – III							
17BCU301	Metabolism of Carbohydrates and Lipids	04	40	60	100	3	4
17BCU302	Metabolism of Amino acids and Nucleic acids	04	40	60	100	3	4
17BCU303	Hormone: Biochemistry and Function	04	40	60	100	3	4
17BCU311	Metabolism of Carbohydrates and Lipids - Practical	04	40	60	100	3	2
17BCU312	Metabolism of Amino acids and Nucleic acids- Practical	04	40	60	100	3	2
17BCU313	Hormones: Biochemistry and Function- Practical	04	40	60	100	3	2
17BCU304A	Tools and Techniques in Biochemistry	03	40	60	100	3	3
17BCU304B	Concepts in Genetics						
17BCU314A	Tools and Techniques in Biochemistry - Practical	03	40	60	100	3	1
17BCU314B	Concepts in Genetics - Practical						
	Semester total	30	320	480	800	-	22
SEMESTER – IV							
17BCU401	Gene Organization, Replication and Repair	04	40	60	100	3	4
17BCU402	Gene Expression and Regulation	04	40	60	100	3	4
17BCU403	Immunology	04	40	60	100	3	4
17BCU411	Gene Organisation, Replication and Repair- Practical	04	40	60	100	3	2
17BCU412	Gene Expression and Regulation- Practical	04	40	60	100	3	2
17BCU413	Immunology - Practical	04	40	60	100	3	2
17BCU404A	Bioinformatics	03	40	60	100	3	3
17BCU404B	Protein Purification Techniques						
17BCU414A	Bioinformatics - Practical	03	40	60	100	3	1
17BCU414B	Protein Purification Techniques - Practical						

	Semester total	30	320	480	800	-	22
SEMESTER – V							
17BCU501A	Clinical Biochemistry	03	40	60	100	3	3
17BCU501B	Biochemical Correlation of Diseases						
17BCU502A	Basic Microbiology	04	40	60	100	3	4
17BCU502B	Nutritional Biochemistry						
17BCU503A	Plant Biochemistry	04	40	60	100	3	4
17BCU503B	Molecular Basis of Infectious Disease						
17BCU504	Chemistry-I	04	40	60	100	3	4
17BCU511A	Clinical Biochemistry- Practical	03	40	60	100	3	1
17BCU511B	Biochemical Correlation of Diseases- Practical						
17BCU512A	Basic Microbiology- Practical	04	40	60	100	3	2
17BCU512B	Nutritional Biochemistry- Practical						
17BCU513A	Plant Biochemistry-- Practical	04	40	60	100	3	2
17BCU513B	Molecular Basis of Infectious disease-Practical						
17BCU514	Chemistry Practical- I	04	40	60	100	3	2
	Semester total	30	320	480	800	-	22
SEMESTER – VI							
17BCU601A	Genetic Engineering and Biotechnology	03	40	60	100	3	3
17BCU601B	Research Methodology						
17BCU602A	Drug Biochemistry	04	40	60	100	3	4
17BCU602B	Biostatistics						
17BCU603	Chemistry-II	04	40	60	100	3	4
17BCU611A	Genetic Engineering and Biotechnology- Practical	03	40	60	100	3	1
17BCU611B	Research Methodology - Practical						
17BCU612A	Drug Biochemistry- Practical	04	40	60	100	3	2
17BCU612B	Biostatistics- Practical						
17BCU613	Chemistry Practical - II	04	40	60	100	3	2
17BCU691	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

Code: 17BCU101

17	-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...)

ELECTIVE**SKILL ENHANCEMENT COURSE**

Semester	Subject Code	Skill Enhancement Course
III	17BCU304A	Tools and Techniques in Biochemistry
	17BCU304B	Concepts in Genetics
	17BCU314A	Tools and Techniques in Biochemistry - Practical
	17BCU314B	Concepts in Genetics - Practical
IV	17BCU404A	Bioinformatics
	17BCU404B	Protein Purification Techniques
	17BCU414A	Bioinformatics- Practical
	17BCU414B	Protein Purification Techniques- Practical
V	17BCU501A	Clinical Biochemistry
	17BCU501B	Biochemical Correlations and Diseases
	17BCU511A	Clinical Biochemistry- Practical
	17BCU511B	Biochemical Correlations and Diseases- Practical
VI	17BCU601A	Genetic Engineering and Biotechnology
	17BCU601B	Research Methodology
	17BCU611A	Genetic Engineering and Biotechnology- Practical
	17BCU611B	Research Methodology - Practical

DISCIPLINE SPECIFIC ELECTIVE

	Semester	Subject Code	Discipline Specific Elective
DSE – 1	V	17BCU502A	Basic Microbiology
		17BCU502B	Nutritional Biochemistry
		17BCU512A	Basic Microbiology- Practical
		17BCU512B	Nutritional Biochemistry- Practical
DSE – 2	V	17BCU503A	Plant Biochemistry
		17BCU503B	Molecular basis of infectious diseases
		17BCU513A	Plant Biochemistry- Practical
		17BCU513B	Molecular basis of infectious diseases practical
DSE – 3	VI	17BCU603A	Drug Biochemistry
		17BCU603B	Biostatistics
		17BCU613A	Drug Biochemistry- Practical
		17BCU613B	Biostatistics- Practical

GENERIC ELECTIVE /ALLIED COURSE

	Semester	Subject Code	Discipline Specific Elective
GEC – 1	V	17BCU504	Chemistry - I
		17BCU514	Chemistry – I Practical
GEC – 2	VI	17BCU603	Chemistry - II
		17BCU613	Chemistry – II Practical

CORE COURSE

CC-1: Molecules of Life
CC-2: Cell Biology
CC-3: Membrane Biology and Bioenergetics
CC-4: Proteins
CC-5: Enzymes
CC-6: Human Physiology
CC-7: Metabolism of Carbohydrates and Lipids
CC-8: Metabolism of Amino Acids and Nucleotides
CC-9: Hormone: Biochemistry and Function
CC-10: Gene Organization, Replication and Repair
CC-11: Gene Expression and Regulation
CC-12: Immunology
CC-13: Project

SKILL ENHANCEMENT COURSE

SEC-1: Tools and Techniques in Biochemistry
SEC-2: Concepts in Genetics
SEC-3: Bioinformatics
SEC-4: Protein Purification Techniques
SEC-5: Clinical Biochemistry
SEC-6: Biochemical Correlation of diseases
SEC-7: Genetic Engineering and Biotechnology
SEC-8: Research Methodology

DISCIPLINE SPECIFIC ELECTIVE

DSE-1: Basic Microbiology
DSE-2: Nutritional Biochemistry
DSE-3: Plant Biochemistry
DSE-4: Molecular basis of infectious diseases
DSE-5: Drug Biochemistry
DSE-6: Biostatistics

GENERIC ELECTIVE/ ALLIED

GEC1 : Chemistry-I
GEC2 : Chemistry-II

ABILITY ENHANCEMENT COMPULSORY COURSE

AECC-1: English communication
AECC-2: Environmental Studies

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