KAZI N	NAZRUL UNIVERSITY		FACULTY OF SCIENCE		COMPUTER APP COMPUTER AI	RAMME: 3 YEARS BA LICATION/4 YEARS I PPLICATION HONOU OMPUTER APPLICAT WITH RESEARCH	BACHELOR OF RS/ 4 YEARS	OR OF ARS WITH EFFECT FROM THE ACADEMIC SESSION: 2023-24 NOURS  Potails La Tap Course Sem Credit CA Marks ESE Marks Total Sem Marks									
oreviated Degree	Abbreviated Degree Programme	Semester	Course Name		Course Type	Course Code	Course Details	L - T - P	Course Credit	Sem Credit	CA N Practical	Marks Theoretical	ESE I	Marks Theoretical	Total Marks	Sem Marks	
			Introduction to Programming using C		MAJOR	BCAMJ101	MJC-1	3 - 0 - 4	5		30	15	20	35	100		
			Financial Accounting		MINOR	BCAMN101	MNC-1	4-1-0	5			30		70	100	1	
		I	Choose from the Pool of Multidisciplinary Courses offered in 1st Semester		MD	See Pool	MDC-1	3 - 0 - 0	3	20		15		35	50	350	
			English/MIL Communication		AEC	See Pool	AEC-1	4 - 0 - 0	4			15		35	50	1	
			Office Automation Software Lab		SEC	BCASE101	SEC-1	0-0-6	3		30		20		50		
			Data Structures and Algorithms		MAJOR	BCAMJ201	MJC-2	3 - 0 - 4	5		30	15	20	35	100		
			Cost Accounting		MINOR	BCAMN201	MNC-2	4 - 1 - 0	5			30		70	100		
		II	Choose from the Pool of Multidisciplinary Courses offered in 2nd Semester		MD	See Pool	MDC-2	3 - 0 - 0	3	20		15		35	50	350	
			Environment Studies		VAC	VAC201	VAC-1	4 - 0 - 0	4			15		35	50	1	
			Web Designing with HTML, CSS		SEC	BCASE201	SEC-2	0-0-6	3		30		20		50		
		Student exit	ting the programmes after securing 40 credits will be	e awarded UG (	Certificate in the relevan		ided they secure 4 cr earned during first a			ional courses	offered during su	ımmer term or in	ternship / App	renticeship. In a	iddition to 6 cr	redits from skil	
			1	Τ		Dased courses		lid secolid sell	nestei								
			Object Oriented Programming with C ++		MAJOR	BCAMJ301	MJC-3	3 - 0 - 4	5		30	15	20	35	100		
			Digital Logic and Computer Organization		MAJOR	BCAMJ302	MJC-4	3-0-4	5		30	15	20	35	100	†	
			Introduction to Algebra		MINOR	BCAMN301	MNC-3	4-1-0	5	22		30		70	100	100	
		III	Choose from the Pool of Multi-Disciplinary		MD	See Pool	MD-3	2 - 1 - 0	3	22		15		35	50	400	
			Courses offered in 3rd Semester													1	
	BCA		English Communication		AE	AECCE301	AECC-2	4-0-0	4			15		35	50		
	Ben				MATOR	DC 1 M 101	) II G 5	2 0 4	-		20	1.5	20	25	100		
			Operating System		MAJOR	BCAMJ401	MJC-5	3 - 0 - 4	5		30	15	20	35	100	1	
			Database Management System		MAJOR	BCAMJ402	MJC-6	3 - 0 - 4	5		30	15	20	35	100	-	
		IV	Introduction to Calculus and Differential Equation		MINOR	BCAMN401	MNC-4	4 - 1 - 0	5	22		30		70	100	400	
			Reasoning and Aptitude		SEC	BCASE401	SEC-3	3 - 0 - 0	3			15		35	50	]	
			VALUE ADDED COURSE- Choose from the Pool of VAC offered in 4th Semester	(Any One)	VAC	See Pool	VAC-2	4 - 0 - 0	4			15		35	50		
			Students exiting the programmes after securing	g 80 credits will	be awarded UG Diplom	I in the relevant Disciplin	ne/Subject provided	they secure add	ditional 4 cr	edits in skill b	pased vocational	courses offered of	luring first yea	r or second year	r summer term	1	
	1													\\			
			Microprocessor and Computer Architecture		MAJOR	BCAMJ501	MJC-7	3 - 0 - 4	5		30	15	20	35	100		
			Microprocessor and Computer Architecture Computer Networks		MAJOR MAJOR	BCAMJ501 BCAMJ502	MJC-7 MJC-8	3 - 0 - 4 3 - 0 - 4	5 5		30 30	15 15	20 20	35 35	100		
		v								20						400	
COMPUT		v	Computer Networks		MAJOR	BCAMJ502	MJC-8	3 - 0 - 4	5	20	30	15	20	35	100	400	
COMPUT APPLICAT N		v	Computer Networks  Core Java  Introduction to Geometry and Probability-		MAJOR MAJOR	BCAMJ502 BCAMJ503	MJC-8 MJC-9	3 - 0 - 4	5	20	30	15 15	20	35 35	100	400	
APPLICAT		V	Computer Networks  Core Java  Introduction to Geometry and Probability-		MAJOR MAJOR MINOR MAJOR	BCAMJ502 BCAMJ503	MJC-8 MJC-9	3 - 0 - 4	5	20	30	15 15	20	35 35	100	400	
APPLICAT			Computer Networks Core Java Introduction to Geometry and Probability-Statistics Data Mining Software Engineering		MAJOR MAJOR MINOR MAJOR MAJOR	BCAMJ502 BCAMJ503 BCAMN501 BCAMJ601 BCAMJ602	MJC-8 MJC-9 MNC-5 MJC-10 MJC-11	3 - 0 - 4 3 - 0 - 4 4 - 1 - 0 4 - 1 - 0	5 5 5 5		30 30	15 15 30 30 30	20 20	35 35 70 70 70	100 100 100 100		
APPLICAT		V	Computer Networks Core Java Introduction to Geometry and Probability-Statistics Data Mining Software Engineering Web and Internet Technology		MAJOR MAJOR MINOR MAJOR MAJOR MAJOR	BCAMJ502 BCAMJ503 BCAMN501 BCAMJ601 BCAMJ602 BCAMJ603	MJC-8 MJC-9 MNC-5 MJC-10 MJC-11 MJC-12	3-0-4 3-0-4 4-1-0 4-1-0 3-0-4	5 5 5 5 5 5	20	30 30 30	15 15 30 30 30 15	20 20 20	35 35 70 70 70 70 35	100 100 100 100 100 100	400	
APPLICAT			Computer Networks Core Java Introduction to Geometry and Probability-Statistics  Data Mining Software Engineering Web and Internet Technology Programming in Python		MAJOR MAJOR MINOR  MAJOR MAJOR MAJOR MAJOR MAJOR	BCAMJ502 BCAMJ503 BCAMN501 BCAMJ601 BCAMJ602 BCAMJ603 BCAMJ604	MJC-8 MJC-9 MNC-5 MJC-10 MJC-11 MJC-12 MJC-13	3-0-4 3-0-4 4-1-0 4-1-0 3-0-4 3-0-4	5 5 5 5 5 5 5		30 30 30 30 30	15 15 30 30 30	20 20 20 20 20	35 35 70 70 70	100 100 100 100 100 100 100		
APPLICAT			Computer Networks Core Java Introduction to Geometry and Probability-Statistics  Data Mining Software Engineering Web and Internet Technology Programming in Python Summer Internship		MAJOR MAJOR MINOR  MAJOR MAJOR MAJOR MAJOR MAJOR SI	BCAMJ502 BCAMJ503 BCAMN501 BCAMJ601 BCAMJ602 BCAMJ603	MJC-8 MJC-9 MNC-5 MJC-10 MJC-11 MJC-12	3-0-4 3-0-4 4-1-0 4-1-0 3-0-4	5 5 5 5 5 5	22	30 30 30 30 30 30	15 15 30 30 30 15	20 20 20	35 35 70 70 70 70 35	100 100 100 100 100 100	450	
APPLICAT			Computer Networks Core Java Introduction to Geometry and Probability-Statistics  Data Mining Software Engineering Web and Internet Technology Programming in Python		MAJOR MAJOR MINOR  MAJOR MAJOR MAJOR MAJOR MAJOR	BCAMJ502 BCAMJ503 BCAMN501 BCAMJ601 BCAMJ602 BCAMJ603 BCAMJ604	MJC-8 MJC-9 MNC-5 MJC-10 MJC-11 MJC-12 MJC-13	3-0-4 3-0-4 4-1-0 4-1-0 3-0-4 3-0-4	5 5 5 5 5 5 5	22	30 30 30 30 30	15 15 30 30 30 15	20 20 20 20 20	35 35 70 70 70 70 35	100 100 100 100 100 100 100		
APPLICAT			Computer Networks Core Java Introduction to Geometry and Probability-Statistics  Data Mining Software Engineering Web and Internet Technology Programming in Python Summer Internship  Total Credit and Marks	Students who v	MAJOR MAJOR MINOR  MAJOR MAJOR MAJOR MAJOR MAJOR SI TOTAL CREDIT	BCAMJ502 BCAMJ503 BCAMN501 BCAMJ601 BCAMJ602 BCAMJ603 BCAMJ604	MJC-8 MJC-9 MNC-5 MJC-10 MJC-11 MJC-12 MJC-13 SI-1	3-0-4 3-0-4 4-1-0 4-1-0 3-0-4 3-0-4 0-0-4	5 5 5 5 5 5 5 2	22	30 30 30 30 30 30 TOTAL MARKS	15 15 30 30 30 15 15	20 20 20 20 20	35 35 70 70 70 70 35	100 100 100 100 100 100 100	450	
APPLICAT			Computer Networks Core Java Introduction to Geometry and Probability-Statistics  Data Mining Software Engineering Web and Internet Technology Programming in Python Summer Internship  Total Credit and Marks	Students who v	MAJOR MAJOR MINOR  MAJOR MAJOR MAJOR MAJOR MAJOR SI TOTAL CREDIT	BCAMJ502 BCAMJ503 BCAMN501 BCAMJ601 BCAMJ602 BCAMJ603 BCAMJ604 BCASI601 BCASI601	MJC-8 MJC-9 MNC-5  MJC-10 MJC-11 MJC-12 MJC-13 SI-1  be awarded UG Do	3 - 0 - 4 3 - 0 - 4 4 - 1 - 0 4 - 1 - 0 3 - 0 - 4 3 - 0 - 4 0 - 0 - 4	5 5 5 5 5 5 5 2	22	30 30 30 30 30 30 TOTAL MARKS	15 15 30 30 30 15 15	20 20 20 20 20	35 35 70 70 70 70 35 35	100 100 100 100 100 100 100 50	450	
APPLICAT			Computer Networks Core Java Introduction to Geometry and Probability-Statistics  Data Mining Software Engineering Web and Internet Technology Programming in Python Summer Internship  Total Credit and Marks  Theory of Computation	Students who v	MAJOR MAJOR MINOR  MAJOR MAJOR MAJOR MAJOR SI TOTAL CREDIT  want to undertake 3-ye  MAJOR	BCAMJ502 BCAMJ503 BCAMN501 BCAMJ601 BCAMJ602 BCAMJ603 BCAMJ604 BCASI601 BCASI601 BCAMJ701	MJC-8 MJC-9 MNC-5  MJC-10 MJC-11 MJC-12 MJC-13 SI-1  be awarded UG Do	3 - 0 - 4 3 - 0 - 4 4 - 1 - 0 4 - 1 - 0 3 - 0 - 4 3 - 0 - 4 0 - 0 - 4	5 5 5 5 5 5 5 2	22	30 30 30 30 30 30 TOTAL MARKS	15 15 30 30 30 15 15 15	20 20 20 20 20	35 35 70 70 70 35 35 35	100 100 100 100 100 100 100 50	450	
APPLICAT			Computer Networks Core Java Introduction to Geometry and Probability-Statistics  Data Mining Software Engineering Web and Internet Technology Programming in Python Summer Internship  Total Credit and Marks	Students who v	MAJOR MAJOR MINOR  MAJOR MAJOR MAJOR MAJOR MAJOR SI TOTAL CREDIT	BCAMJ502 BCAMJ503 BCAMN501 BCAMJ601 BCAMJ602 BCAMJ603 BCAMJ604 BCASI601 BCASI601	MJC-8 MJC-9 MNC-5  MJC-10 MJC-11 MJC-12 MJC-13 SI-1  be awarded UG Do	3 - 0 - 4 3 - 0 - 4 4 - 1 - 0 4 - 1 - 0 3 - 0 - 4 3 - 0 - 4 0 - 0 - 4	5 5 5 5 5 5 5 2	22	30 30 30 30 30 30 TOTAL MARKS	15 15 30 30 30 15 15	20 20 20 20 20	35 35 70 70 70 70 35 35	100 100 100 100 100 100 100 50	450	

														_
		Principals of Management	MINOR	BCAMN701	MNC-6	4 - 1 - 0	5			30		70	100	
4 YEARS DEGREE WITH HONOURS														
WITH HONOURS		Numerical and Statistical Methods	MAJOR	BCAMJ801	MJC-18	3 - 0 - 4	5		30	15	20	35	100	
		Cloud Computing	MAJOR	BCAMJ802	MJC-19	3 - 1 - 0	4			30		70	100	
	VIII	Internet of Things	MAJOR	BCAMJ803	MJC-20	3 - 1 - 0	4	22		30		70	100	500
	7111	Dissertation/ Major Project	MAJOR	BCAMJ804	MJC-21	0 - 0 - 8	4	]	60		40		100	
		Management Information System	MINOR	BCAMN801	MNC-7	4 - 1 - 0	5			30		70	100	
		Total Credit and Marks	TOTAL CREDIT					173	TOTAL MARKS					3350
			Students will be awarded UG Degr	ree (Honours) in the rele	evant Discipline / S	Subject provid	led they sec	ure 173 credi	ts	1				
		Theory of Computation	MAJOR	BCAMJ701	MJC-14	4-1-0	5			30		70	100	
		Design and Analysis of Algorithm	MAJOR	BCAMJ701	MJC-15	4-1-0	5	1		30		70	100	1
	3777	Artificial Intelligence and Machine Learning	MAJOR	BCAMJ703	MJC-16	3 - 0 - 4	5	25	30	15	20	35	100	500
	VII	Minor Project and Entrepreneurship	MAJOR	BCAMJ704	MJC-17	0 - 0 - 10	5	25	60		40		100	300
4 YEARS DEGREE		Principals of Management	MINOR	BCAMN701	MNC-6	4 - 1 - 0	5			30		70	100	
WITH HONOURS														
WITH RESEARCH		Numerical and Statistical Methods	MAJOR	BCAMJ801	MJC-18	3 - 0 - 4	5		30	15	20	35	100	
		RESEARCH METHODOLOGY	RP	BCARP801	RP-1	4 - 0 - 0	4	]		15		35	50	
	VIII	RESEARCH PROJECT / DISSERTATION	RP	BCARP802	RP-2	0 - 0 - 16	8	22	150		100		250	500
		Management Information System	MINOR	BCAMN801	MNC-7	4-1-0	5			30		70	100	

TOTAL CREDIT Students will be awarded UG Degree (Honours) with Research in the relevant Discipline / Subject provided they secure 173 credits

173

TOTAL MARKS

3350

Abbreviations: MJC-= Major (Core); AE= Ability Enhancement; AECC= Ability Enhancement Compulsory Course; MNC= Minor (Core); SE= Skill Enhancement Course; MD= Multidisciplinary Course; SI - Summer Internship; RP= Research Project; VAC= Value Added Course; CA= Continuous Assessment, ESE= End Semester Examination, L= Lecture Hour; T= Tutorial Hour and P= Practical Hour/ Field Work and NA= Not Applicable

**Total Credit and Marks** 

Semester wise Pool of Multidisciplinary Courses Offered

Discipline	Semester	Course Name		Course Type	Course Code	Course Details	L-T-P	Course	Sem Credit	CA N			Marks	Total	Sem Mari
2 iso-pine	Semester		1	course Type		Course Details		Credit	Sem Great	Practical	Theoretical	Practical	Theoretical	Marks	Jen Han
		Physical Science (FROM PHYSICS)			MDC101		3 - 0 - 0			`	15		35		
		E-Commerce (FROM BBA)			MDC102		3 - 0 - 0	1			15		35		
		Human Rights (FROM POLITICAL SCIENCE)			MDC103		3 - 0 - 0				15		35		
		Disaster Management (FROM GEOGRAPHY)			MDC104	]	3 - 0 - 0	]			15		35		
		Fitness and Wellness (FROM PHYSICAL EDUCATION)			MDC105		3 - 0 - 0				15		35		
		Application of Bio-Science (FROM ZOOLOGY)			MDC106		3 - 0 - 0				15		35		
		Film Appreciation (FROM ENGLISH)			MDC107	_	3 - 0 - 0	1			15		35		
		Accounting for All (FROM COMMERCE)			MDC108		3 - 0 - 0	1			15		35		
		History of Ancient Bengal (FROM HISTORY)	-		MDC109	-	3 - 0 - 0	1			15		35		
		Bangla Sahitya O Sanskriti (FROM BENGALI)	(4.0)		MDC110	MD-1	3 - 0 - 0	2			15		35	50	
	1	Money and Banking (From Economics)	(Any One)		MDC111	MD-1	3 - 0 - 0	3			15		35	50	
		Patrakarita (FROM HINDI)			MDC112		3 - 0 - 0				15		35		
		Business Mathematics (From Mathematics)			MDC113		3 - 0 - 0				15		35		
		Indian Society (From Sociology)	]		MDC114		3 - 0 - 0	1			15		35		
		Yoga for Daily Life (From Philosophy)			MDC115		3 - 0 - 0				15		35		
		Electronic Measurements (From Electronics)			MDC116		3 - 0 - 0				15		35		
		Information and Communication Technology (FROM COMPUTER SC)			MDC117		3 - 0 - 0				15		35		
		Introduction to Local Flora (From Botany)			MDC118						15		35		
	Information and Media Literacy			MDC119		3 - 0 - 0		]		15		35			

				-					-						
		Mathematical Science (FROM			MDC201		3 - 0 - 0				15		35		
		MATHEMATICS)	+		MDC202	-	2 0 0				1.5		35		
		Business Environment (FROM BBA)	+		ļ	-	3-0-0	-			15 15		35		
MULTI DISCIPLINARY		Basic Statistics (From Statistics) Cultural History of Bengal (FROM HISTORY)	1	MD	MDC203 MDC204	+	3 - 0 - 0	1	NA		15		35		
		Personal Finance (FROM COMMERCE)	1		MDC204 MDC205	+	3-0-0	1			15		35		
		Nutrition and Public Health (FROM	1			-		1							
		NUTRITION)			MDC206		3 - 0 - 0				15		35		
		Educational Philosophy (FROM EDUCATION)			MDC207		3 - 0 - 0				15		35		
		Stress Management (FROM PSYCHOLOGY)	1		MDC208	1	3 - 0 - 0	1			15		35		
		Social Media and Cyber Awareness (From	1		MDC209		3 - 0 - 0	1			15		35		
	П	Computer Science)	(Any One)			MD-2		3						50	
		Adhunik Bangla Sahitya (FROM BENGALI)	(1111) (1111)		MDC210		3 - 0 - 0				15		35		
		Nazrul Sangeet (From Nazrul Sangeet)			MDC211		3 - 0 - 0				15		35		
		E-Waste Management (From Electronics)			MDC212		3 - 0 - 0				15		35		
		Chemical Science (From Chemistry)			MDC213		3 - 0 - 0				15		35		
		Critical Survey of Sanskrit Language (From Sanskrit)			MDC214		3 - 0 - 0				15		35		
		Asnaf- e -Adab (From Urdu)	1		MDC215		3 - 0 - 0				15		35		
		Anuvad Vigyan (From Hindi)	1		MDC216			1							
		Herbal Home Remedies (From Botany)	1		MDC217	1		1							
		Contemporary India: Women and Empowerment (From English)			MDC218		3 - 0 - 0				15		35		
		Bharatavarsha—A Land of Rare Natural Endowments (FROM GEOGRAPHY)			MDC301		3 - 0 - 0		1		15		35		
		The Vedangas and Other Streams of Indian	†		MDC302	-	3 - 0 - 0				15		35		
		Knowledge System (FROM SANSKRIT)	1			-		-							
		Indian Astronomy (FROM PHYSICS)	1		MDC303	-	3 - 0 - 0	-			15		35		
	III	Indian Health Sciences (FROM ZOOLOGY)	(Any One)		MDC304	MD-3	3 - 0 - 0	3			15		35	50	
	""	Indian Mathematics (FROM MATHEMATICS)	(Ally Olic)		MDC305	WID-3	3 - 0 - 0	,			15		35	30	
		Indian Education (FROM EDUCATION)	1		MDC306		3 - 0 - 0				15		35		
		Indian Polity and Economy (FROM POLITICAL			MDC307		3 - 0 - 0				15		35		
		Methodology of Indian Knowledge System (From	1			+		1							
		Philosophy)			MDC308		3 - 0 - 0				15		35		
	_	Pool of C	Communicat	tion Courses offer	ed as Ability Enh	ancement Com	pulsary Co	ourses							
Discipline	Semester	Course Name		Course Type	Course Code	Course Details	L-T-P	Course	Sem Credit		Marks	ESE N		Total	Sem Marks
P				VI.				Credit		Practical	Theoretical	Practical	Theoretical	Marks	
		English Communication	1		AECCE101		4-0-0				15		35		
English/MIL Communication	T	Bengali Communication	(Any One)	ΔE	AECCB101	AECC-2	4 - 0 - 0	4	NA		15		35	50	NA
	1 1		(Any One)	/ LL	I									30 1	11/1
	1	Hindi Communication Urdu Communication	(Ally Olic)	TALL .	AECCH101 AECCU101	71200 2	4-0-0		1,11		15 15		35 35	30	1171

			Sei	nesterwise Pool of	f Value Added Co	ourses offered									
Discipline	Semester	Course Name		Course Type	Course Code	Course Details	L-T-P	Course	Sem Credit	CA !	Marks	ESE I	Marks	Total	Sem Marks
Discipline	Semester	Course Name		Course Type	Course Coue	Course Details	L-1-1	Credit	Sem Creuit	Practical	Theoretical	Practical	Theoretical	Marks	Selli Marks
		Yoga and Health (FROM PHYSIOLOGY)			VAC401		4 - 0 - 0			,	15		35		
		Social Values and Ethics (FROM PHILOSOPHY)			VAC402		4 - 0 - 0				15		35		
		Digital and Technological Solutions (FROM COMPUTER SCIENCE)			VAC403		4 - 0 - 0				15		35		
VALUE ADDED	IV	Understanding India (FROM HISTORY)	(Any One)	VAC	VAC404	VAC-2	4 - 0 - 0	4	NA		15		35	50	NA
		Sustainable Development: Issues and Challenges (FROM ECONOMICS)			VAC405		4 - 0 - 0				15		35		
		Goods and Services Tax (FROM COMMERCE)			VAC406		4 - 0 - 0				15		35		
		Basics of Indian Constitution (FROM POLITICAL SCIENCE)			VAC407		4 - 0 - 0				15		35		

	KAZI NAZRU	L UNIVERSITY		FACULTY OF SCIENCE		BA		ROGRAMME: IPUTER APPLICAT	ION		WIT	H EFFECT	FROM THE	ACADEMIC	C SESSION: 2	020-21	
Abbreviated		Abbreviated Degree				Course				Course	Sem	CA	Marks	ESE	Marks	Total	Sem
Degree	Discipline	Programme	Semester	Course Name		Type	Course Code	Course Details	L - T - P	Credit	Credit	Practical	Theoretical	Practical	Theoretical	Marks	Marks
				Computer Fundamentals			BCAC101	CC-1	3 - 1 - 0	4			20		80	100	
				Programming in C			BCAC102	CC-2	3 - 1 - 0	4			20		80	100	
			ī	Mathematics - I		C	BCAC103	CC-3	3 - 1 - 0	4	24		20		80	100	550
			1	Software Lab - I : PC Software			BCAC104	CC-4	0 - 0 - 8	4	27	60		40		100	330
				Software Lab - II : Programming in C			BCAC105	CC-5	0 - 0 - 8	4		60		40		100	
				Environment Studies		AE	AEE101	AECC-1	4 - 0 - 0	4			10		40	50	
				Digital Logic		_	BCAC201	CC-6	3 - 1 - 0	4			20		80	100	1
				Data Structure		1	BCAC202	CC-7	3 - 1 - 0	4			20		80	100	
			п	Accounting & Costing		С	BCAC203	CC-8	3 - 1 - 0	4	24		20		80	100	550
				Software Lab - III : Data Structure		4	BCAC204	CC-9	0 - 0 - 8	4		60		40		100	
				Hardware Lab - I : Digital Logic			BCAC205	CC-10	0 - 0 - 8	4		60		40		100	_
				English/MIL Communication		AE	See Pool	AECC-2	4 - 0 - 0	4			10		40	50	
				lot: .o.: .th			D.C. + C204	20.11				T			00	100	
				Object Oriented Programming with C ++		- 1	BCAC301	CC-11	3-1-0	4	1		20 20		80	100	1
				Operating Systems  Mathematics - II		$\frac{1}{c}$	BCAC302	CC-12		4					80	100	4
				Software Lab - IV : Object Oriented Programmi	ng with C ++	'	BCAC303 BCAC304	CC-13 CC-14	3 - 1 - 0	4		60	20	40	80	100 100	- 1
			III	Software Lab - V : Unix and Shell Programming		-	BCAC305	CC-14 CC-15	0-0-8	4	28	60		40		100	650
				Business System & Application			BCAGE301		3 - 1 - 0		1	- 60	20	40	80		1
				Multimedia System Design	(Any One)	GE	BCAGE302	GEC-1	3 - 1 - 0	4			20		80	100	
				Reasoning & Aptitude		SE	BCASE301	SEC-1	4-0-0	4			10		40	50	1
				reasoning & ripitade		J.D.	BCA5L301	BLC-1	4-0-0				10		40		
				Data Base Management System			BCAC401	CC-16	3 - 1 - 0	4	l		20		80	100	
	COMPUTER			Computer Networks		1	BCAC402	CC-17	3 - 1 - 0	4	i		20		80	100	1
BCA	APPLICATION	BCA		Computer Organization and Architecture		c l	BCAC403	CC-18	3 - 1 - 0	4	i		20		80	100	1
			***	Software Lab - VI : SQL & PLSQL		1	BCAC404	CC-19	0-0-8	4	20	60		40		100	650
			IV	Software Lab - VII : Visual Basic		1	BCAC405	CC-20	0 - 0 - 8	4	28	60		40		100	650
				Information System Analysis & Design	(Any One)	GE	BCAGE401	GEC-2	3 - 1 - 0	4	1		20		80	100	
				Microprocessor and its Applications	(Any One)	GE	BCAGE402	GEC-2	3 - 1 - 0	1 4			20		80	100	
				Communicative English		SE	BCASE401	SEC-2	4 - 0 - 0	4			10		40	50	
				Software Engineering		4	BCAC501	CC-21	3 - 1 - 0	4	1		20		80	100	
				E-commerce and Internet		4	BCAC502	CC-22	3 - 1 - 0	4			20		80	100	
				Mathematics - III		c l	BCAC503	CC-23	3 - 1 - 0	4			20		80	100	4
			.,	Core Java Software Lab - VIII : E-commerce using HTML	1 DIID	4	BCAC504	CC-24	3 - 1 - 0	4	28		20	40	80	100	700
			V		and PHP	-	BCAC505	CC-25	0 - 0 - 8	4	28	60		40		100	- /00
				Software Lab - IX : Core Java			BCAC506 BCAGE501	CC-26	0 - 0 - 8 3 - 1 - 0	4	-	60	20	40	80	100	1
				Introduction to Cyber Security	(Any One)	GE	BCAGE501 BCAGE502	GEC-3	3-1-0	4			20		80	100	
				Image Processing Intelligent Systems	(Any One)	GE	BCAGE502 BCAGE503	GEC-3	3-1-0	+			20		80	100	
				Intelligent Systems			BCAGE303		3-1-0				20		80		
				Programming in Python		1	BCAC601	CC-27	3 - 1 - 0	4		1	20		80	100	
				Programming in Python  C#.NET  Software Lab - X : Python Programming	1 1	BCAC602	CC-28	3 - 1 - 0	4	1		20		80	100	+	
					+ c $ $	BCAC603	CC-29	0-0-8	4	1	60	20	40	80	100	1	
				Software Lab - VI · C# NET			BCAC604	CC-30	0-0-8	4	ł	60		40		100	1
			VI	Project Work and Viva		1	BCAC605	CC-31	0-0-8	4	24	60		40		100	600
				Computer Graphics		_	BCAGE601	CC-31	3 - 1 - 0	-	1	- 00	20	40	80	100	1
				Theory of Computation	(Any One)	GE	BCAGE602	GEC-4	3 - 1 - 0	4			20		80	100	
				Cloud Computing	(ring One)	l or	BCAGE603	1 525 7	3 - 1 - 0	† .			20		80	130	
			Total Credit and Marks				DCAGLOO		J-1-0		156		20		80		3700
				1								1					

Abbreviations: C= Core; CC=Core Course; AE= Ability Enhancement; AECC= Ability Enhancement Compulsory Course; GE= Generic Elective; GEC= Generic Elective Course; SE= Skill Enhancement; SEC= Skill Enhancement Course; DSE= Discipline Specific Elective; DSEC= Discipline Specific Elective Course; CA= Continuous Assessment, ESE= End Semester Examination, L= Lecture Hour; T= Tutorial Hour and P= Practical Hour/ Field Work and NA= Not Applicable

Generic Elective Courses (GEC): Students of a particular Honours Course will choose from the Pool of Generic Elective Courses offered by Disciplines other than the Discipline in which Honours course is taken

Semesterwise Pool of Generic Elective Courses offered by the	his Disciplii	ne													
Discipline	Semester	Course Name	Course Name Co		Course Code	Course Details	L - T - P	Course	Sem	CA	Marks	ESE	Marks	Total	Sem
Discipline	Schiester	Course reame		Type	Course Coue	Course Details	L-1-1	Credit	Credit	Practical	Theoretical	Practical	Theoretical	Marks	Marks
	Ш	Business System & Application	(Any One)		BCAGE301	GEC-1	3 - 1 - 0	4			20		80	100	
	111	Multimedia System Design	(Ally Olle)		BCAGE302	GEC-1	3 - 1 - 0	7			20		80	100	
	IV	Information System Analysis & Design	(Any One)		BCAGE401	GEC-2	3 - 1 - 0	4			20		80	100	
			TAILVUINET			- CITAC-2.								100	

	KAZI NAZRU	L UNIVERSITY		FACULTY OF SCIENCE		BA	DEGREE PR ACHELOR OF COM	OGRAMME: PUTER APPLICAT	ION		WIT	H EFFECT	FROM THE	ACADEMIC	C SESSION: 2	2020-21	
Abbreviated		Abbreviated Degree		a v		Course				Course	Sem	CA	Marks	ESE	Marks	Total	Sem
Degree	Discipline	Programme	Semester	Course Name T			Course Code	Course Details	L - T - P			Practical	Theoretical	Practical	Theoretical	Marks	Marks
				Microprocessor and its Applications	(riny one)		BCAGE402	GLC 2	3 - 1 - 0	•			20		80	100	
	COMPUTER APPLICATION			Introduction to Cyber Security		GE	BCAGE501		3 - 1 - 0		NA.		20		80		NA
	COMPUTER APPLICATION			Image Processing	(Any One)	GL	BCAGE502	GEC-3	3 - 1 - 0	4	IVA		20		80	100	IVA
				Intelligent Systems			BCAGE503		3 - 1 - 0				20		80		
				Computer Graphics			BCAGE601		3 - 1 - 0				20		80		
			VI	Theory of Computation	(Any One)		BCAGE602	GEC-4	3 - 1 - 0	4			20		80	100	
				Cloud Computing			BCAGE603		3 - 1 - 0				20		80		
	·			·													
Pool of Commu	nication Courses of	ffered as Ability Enhanc	ement Com	pulsary Courses													
		·	_			Course				Course	Sem	CA	Marks	ESE	Marks	Total	Sem

Pool of Communication Courses offered as Ability Enhance	ement Com	pulsary Courses													
Discipline	Semester	Course Name		Course	Course Code	Course Details	L-T-P	Course	Sem	CA	Marks	ESE	Marks	Total	Sem
Discipine	Semester	Course Ivaine		Type	Course Coue	Course Details	11-1	Credit	Credit	Practical	Theoretical	Practical	Theoretical	Marks	Marks
		English Communication			AECCE201		4 - 0 - 0				10		40		
English/MIL Communication		Bengali Communication	(Any One)	AE	AECCB201	AECC-2	4 - 0 - 0	1	NA		10		40	50	NT A
English/MIL Communication		Hindi Communication	(Any One)	AL	AECCH201	AECC-2	4 - 0 - 0	7	INA		10		40	] 30	INA
		Urdu Communication			AECCU201		4 - 0 - 0				10		40	1	