

Panipat Institute of Engineering & Technology

An Autonomous Institution, Approved by A.I.C.T & Affiliated to Kurukshetra University, Kurukshetra NBA Accredited (MBA,CSE,IT & ECE,UG) 70, MILESTONE, G.T.ROAD, SAMALKHA, PANIPAT-132103, HARYANA Phone No. – 0180-2569700 Fax: 0180-2569800 Email: info@piet.co.in Web: www.piet.co.in

Scheme of Studies and Examinations, and the Syllabi

Under Graduate Degree Programme

Bachelor of Computer Applications

(in phased manner)

as per NEP-2020 guidelines

With Multiple Entry-Exit and Internship w.e.f. Academic Session 2024-25

DEPARTMENT OF COMPUTER APPLICATIONS - UG

Scheme of Studies and Examinations (w.e.f. Session 2024 - 2025)										
	Bachelor of Computer Applications Semester – I									
Course Code	Course Title	Period(s)		Hours/ Week		Continuous Internal Examination	Semester End Exanination	Total Marks	Duration of Exam (Hours)	
				H	-	(CIE)	(SEE)	(CIE+SEE)	Our	
		L	T	P			Max	Max	Max	
	Core C		_							
BCA-101A	Foundations of Computer Science	3	0	0	3	3	40	60	100	3
BCA-103A	Digital Logic Design	3	0	0	3	3	40	60	100	3
ASH-MAT-115A	Basics of Mathematics-I	2	0	0	2	2	40	60	100	3
A CIT THEN A 107 A	Value Added	1 Cour	rse (\	(AC)	_	_	10	60	100	2
ASH-HUM-107A	Universal Human Values Skill Enhancer			O (ST	2	2	40	60	100	3
BCA-105A	Problem Solving through C	3	ours 0	0	3	3	40	60	100	3
BCA-103A	Ability Enhance	_					40	00	100	,
ASH-HUM-117A	English Language and Communication-1	2	0	0	2	2	40	60	100	3
	Multi Disciplin		ourse	e (MI	OC)					
BBA-215A	Digital Marketing	2	0	0	2	2	40	60	100	3
	Practicum	Cour	rse (F	PC)						
BCA-171A	Digital Logic Design Lab	0	0	4	4	2	50	50	100	3
BCA-173A	Problem Solving through C Lab	0	0	4	4	2	50	50	100	3
Total 17 0 8 25 21 380 520 900										
	Scheme of Studies and Examinations (w.e.f. Session 2024 - 2025)									
Bachelor of Computer Applications Semester – II								023)		
	Bachelor of Computer A	Appli					r – II			
Course Code	Bachelor of Computer A			ons	Seme	ester		Semester End Examination	Total Marks	ation of Exam (Hours)
Course Code			cati	ons			r – II			Duration of Exam (Hours)
Course Code			cati	ons	Seme	ester	Continuous Internal IExamination	Semester End Examination	Marks	Duration of Exam (Hours)
Course Code	Curse Title	Pe	cation T	ons (s)	Seme	ester	Continuous I Internal II Examination	Semester End Examination	Marks (CIE+SEE)	Duration of Exam (Hours)
	Curse Title Core C	Pe L ourse	cation T	ons (s)	Hours/Week ma	Credit (s)	Continuous I Internal II Examination	SEMESTER END SEMESTER END EXAMINATION	Marks (CIE+SEE) Max	
BCA-102A	Curse Title Core C Operating System	Pe L ourse	riod(ons (s)	Hours/ Week	Credit (s)	Continuous (AIO) Examination	Semester End Examination	Marks (CIE+SEE)	3
	Curse Title Core C	Pe L ourse	riod(P 0	Hours/Week ma	Credit (s)	II - I Continuous (AIC) Wax 40	Semester End Examination 60	Marks (CIE+SEE) Max	
BCA-102A BCA-104A	Curse Title Core C Operating System Object Oriented Programming using C++	L ourse 3 3 2	riod(P 0 0 0	Seme 3 3 2	Credit (s)	II - T Continuous Internal Wax Examination 40	Semester End Semester End Examination 60	Marks (CIE+SEE) Max 100 100	3
BCA-102A BCA-104A	Curse Title Core C Operating System Object Oriented Programming using C++ Basics of Mathematics-II	L ourse 3 3 2	riod(P 0 0 0	Seme 3 3 2	Credit (s)	II - T Continuous Internal Wax Examination 40	Semester End Semester End Examination 60	Marks (CIE+SEE) Max 100 100	3
BCA-102A BCA-104A ASH-MAT-116A	Curse Title Core C Operating System Object Oriented Programming using C++ Basics of Mathematics-II Value Added	L ourse 3 3 2 l Cour	riod(T (CC) 0 0 cree(V	P 0 0 0 VAC) 0	Semo years/Week	Credit (s)	II - I Continuous (3ID) Examination Examination Oh Oh	SEE) Max 60 60 60	Marks (CIE+SEE) Max 100 100 100	3 3 3
BCA-102A BCA-104A ASH-MAT-116A	Core C Operating System Object Oriented Programming using C++ Basics of Mathematics-II Value Added Environmental Studies Skill Enhancer Introduction to Web Technology	L ourse 3 3 2 d Cour 2 nent C	T (CC) 0 0 0 0 course (V) 0 0	P 0 0 0 VAC) 0 ee (SH	yaaw/smoH	Credit (s)	II - I Continuous (3ID) Examination Examination Oh Oh	SEE) Max 60 60 60	Marks (CIE+SEE) Max 100 100 100	3 3 3
BCA-102A BCA-104A ASH-MAT-116A BT-CE-104A BCA-106A	Core C Operating System Object Oriented Programming using C++ Basics of Mathematics-II Value Adder Environmental Studies Skill Enhancer Introduction to Web Technology Ability Enhance	L ourse 3 3 2 l Cour 2 ment C 3 ment	T (CC) 0 0 0 0 course (V) 0 0	P 0 0 0 VAC) 0 ee (SH	yaaw/smoH	3 3 2 2 2	Continuous Continuous CIE Continuous CIE C	SEE) Max 60 60 60 60	Marks (CIE+SEE) Max 100 100 100 100	3 3 3
BCA-102A BCA-104A ASH-MAT-116A BT-CE-104A BCA-106A	Curse Title Core C Operating System Object Oriented Programming using C++ Basics of Mathematics-II Value Adder Environmental Studies Skill Enhancer Introduction to Web Technology Ability Enhance English Language and Communication-2	L ourse 3 3 2 l Cour 2 nent C 3 ment c	T (CC) 0 0 0 course (V	P 0 0 0 VAC) 0 se (SI 0 se (A	3 3 2 2 CC) 3 EC) 2	3 3 2 2 2	Continuous Continuous CIE Continuous CIE C	SEE) Max 60 60 60 60	Marks (CIE+SEE) Max 100 100 100 100	3 3 3
BCA-102A BCA-104A ASH-MAT-116A BT-CE-104A BCA-106A ASH-HUM-118A	Curse Title Core C Operating System Object Oriented Programming using C++ Basics of Mathematics-II Value Added Environmental Studies Skill Enhancer Introduction to Web Technology Ability Enhance English Language and Communication-2 Multi Disciplin	L ourse 3 3 2 d Coun 2 nent C 3 ment c 2 ary C	T (CC) 0 0 0 Course 0 Course	P 0 0 0 VAC) 0 see (SH 0 0 ee (MI	3 3 2 2 CC) 3 EC) 2 CC)	3 3 2 2 2 3	Continuous Con	Semester End Max 60 60 60 60 60	Marks (CIE+SEE) Max 100 100 100 100	3 3 3 3 3
BCA-102A BCA-104A ASH-MAT-116A BT-CE-104A BCA-106A ASH-HUM-118A	Core C Operating System Object Oriented Programming using C++ Basics of Mathematics-II Value Added Environmental Studies Skill Enhancer Introduction to Web Technology Ability Enhance English Language and Communication-2 Multi Disciplin Indian Knowledge System	L ourse 3 3 2 d Coun 2 ment C 3 ment C 2 ary C	T (CC) 0 0 0 Course 0 course 0	P 0 0 0 VAC) 0 see (SH 0 0 ee (MII 0	3 3 2 2 CC) 3 EC) 2	3 3 2 2 2 3	Continuous Continuous Call Ca	SEE) Max 60 60 60 60	Marks (CIE+SEE) Max 100 100 100 100	3 3 3 3
BCA-102A BCA-104A ASH-MAT-116A BT-CE-104A BCA-106A ASH-HUM-118A ASH-HUM-119A	Curse Title Core C Operating System Object Oriented Programming using C++ Basics of Mathematics-II Value Added Environmental Studies Skill Enhancer Introduction to Web Technology Ability Enhancer English Language and Communication-2 Multi Disciplin Indian Knowledge System Practicum	L ourse 3 3 2 d Cour 2 ment C 3 ment C 2 ary C 2	T (CC) 0 0 0 Course 0 Course 0 rse (F	P 0 0 0 VAC) 0 ee (SH 0 0 0 CC)	3 3 2 2 CC) 3 EC) 2 DC) 2	3 3 2 2 2 2 2	Continuous Con	SEE) Max 60 60 60 60 60	Marks (CIE+SEE) Max 100 100 100 100 100 100	3 3 3 3 3 3
BCA-102A BCA-104A ASH-MAT-116A BT-CE-104A BCA-106A ASH-HUM-118A ASH-HUM-119A	Curse Title Core C Operating System Object Oriented Programming using C++ Basics of Mathematics-II Value Adder Environmental Studies Skill Enhancer Introduction to Web Technology Ability Enhance English Language and Communication-2 Multi Disciplin Indian Knowledge System Practicum Object Oriented Programming Lab	L ourse 3 3 2 d Cour 2 ment C 3 ment C 2 ary C 2 t Cour 0	T (CC) 0 0 0 0 Course (V 0 0 ourse (F 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	P 0 0 0 VAC) 0 ee (SH 0 0 0 CC) 4	3 3 2 2 CC) 3 EC) 2 0 C) 2	3 3 2 2 2 2 2 2	Continuous Con	SEE) Max 60 60 60 60 60 60	Marks (CIE+SEE) Max 100 100 100 100 100 100 100 100	3 3 3 3 3 3 3
BCA-102A BCA-104A ASH-MAT-116A BT-CE-104A BCA-106A ASH-HUM-118A ASH-HUM-119A	Curse Title Core C Operating System Object Oriented Programming using C++ Basics of Mathematics-II Value Adder Environmental Studies Skill Enhancer Introduction to Web Technology Ability Enhancer English Language and Communication-2 Multi Disciplin Indian Knowledge System Practicum Object Oriented Programming Lab Web Technology Lab	L ourse 3 3 2 l Cour 2 ment C 3 ment C 2 ary C 2 1 Cour 0 0	T (CC) 0 0 0 Course (V 0 0 course (F 0 0 0 0 course (F 0 0 0 0	P 0 0 0 VAC) 0 ee (SH 0 0 CC) 4 4	3 3 2 2 CC) 3 EC) 2 CC) 4 4	3 3 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	Continuous Con	SEE) Max 60 60 60 60 60 60 60 60	Marks (CIE+SEE) Max 100 100 100 100 100 100 100 100	3 3 3 3 3 3
BCA-102A BCA-104A ASH-MAT-116A BT-CE-104A BCA-106A ASH-HUM-118A ASH-HUM-119A BCA-172A BCA-174A	Curse Title Core C Operating System Object Oriented Programming using C++ Basics of Mathematics-II Value Adder Environmental Studies Skill Enhancer Introduction to Web Technology Ability Enhance English Language and Communication-2 Multi Disciplin Indian Knowledge System Practicum Object Oriented Programming Lab	L ourse 3 3 2 d Cour 2 ment C 3 ment C 2 ary C 2 t Cour 0	T (CC) 0 0 0 0 Course (V 0 0 ourse (F 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	P 0 0 0 VAC) 0 ee (SH 0 0 0 CC) 4	3 3 2 2 CC) 3 EC) 2 0 C) 2	3 3 2 2 2 2 2 2	Continuous Con	SEE) Max 60 60 60 60 60 60	Marks (CIE+SEE) Max 100 100 100 100 100 100 100 100	3 3 3 3 3 3 3

Note 1: The Industrial Internship shall be of 4 credits duration of 45-60 days after the 2nd semester. If a student takes exit after 2nd semester with Under Graduate Certificate in Computer Applications, marks of Industrial Internship shall be counted in 2nd semester itself.

Scheme of Studies and Examinations (w.e.f. Session 2024 - 2025)										
	Bachelor of Computer Applications Semester – III									
Course Code	Course Title		Period(s)		Hours/ Week	Credit (s)	Continuous Internal Examination	Semester End Exanination	Total Marks	Duration of Exam (Hours)
					H	-	(CIE)	(SEE)	(CIE+SEE)	Ĭ.
		L	T	P]		Max	Max	Max	
	Core Course (CC)									
BCA-201A	Software Engineering	3	0	0	3	3	40	60	100	3
BCA-207A	Data Structures	3	0	0	3	3	40	60	100	3
BCA-203A	Database Management System	3	0	0	3	3	40	60	100	3
	Skill Enhancer	nent C	ours	e (SI	CC)					
BCA-205A	Programming with Java	3	0	0	3	3	40	60	100	3
	Ability Enhance	ment (Cour	se (A	EC)					
BBA-217A	Personality Development	2	0	0	2	2	40	60	100	3
	Practicum	Cour	se (I	PC)						
BCA-271A	Data Structures Lab	0	0	4	4	2	50	50	100	3
BCA-273A	Database Management System Lab	0	0	4	4	2	50	50	100	3
BCA-275A	Programming with Java Lab	0	0	4	4	2	50	50	100	3
BCA-2/JA			0	_	_					,
Total 14 0 12 26 20 350 450 800										
G 1										
	Schome of Studies and Evamin	ation	c (m	o f	Sacr	ion	2024 2	025)		
	Scheme of Studies and Examin							025)		
Course Code	Scheme of Studies and Examin Bachelor of Computer A Course Title	Appli		ons S	Seme			Semester End Examination	Total Marks	ation of Exam (Hours)
Course Code	Bachelor of Computer A	Appli	catio	ons S		ester	- IV			Ouration of Exam (Hours)
Course Code	Bachelor of Computer A	Appli	catio	ons S	Seme	ester	Continuous Internal II	Semester End Exanination	Marks	Duration of Exam (Hours)
Course Code	Bachelor of Computer A	Applio Pe	riod(ons S	Seme	ester	Continuous Internal II Examination	Semester End Examination	Marks (CIE+SEE)	Duration of Exam (Hours)
Course Code ASH-MAT-215A	Bachelor of Computer A Course Title	Applio Pe	riod(ons S	Seme	ester	Continuous Internal II Examination	Semester End Examination	Marks (CIE+SEE)	Duration of Exam (Hours)
ASH-MAT-215A BCA-122A	Course Title Core C Probability and Statistics Programming with Python	Pe L ourse	riod(ons S	Hours/ Week ma	Credit (s)	Continuous (AIO) Examination	XEM Semester End Examination	Marks (CIE+SEE) Max	
ASH-MAT-215A	Course Title Core C Probability and Statistics Programming with Python Full Stack Development-1 (MERN)	Pe L ourse 3 3 3 3	riod((s) P 0 0 0	eme Hours/Week	Credit (s)	Continuous (EXAMINATION Continuous Caramination 40	Semester End (33S) Examination	Marks (CIE+SEE) Max	3
ASH-MAT-215A BCA-122A BCA-215A	Course Title Core C Probability and Statistics Programming with Python Full Stack Development-1 (MERN) Value Added	Pe L ourse 3 3 d Cour	T (CC)	P 0 0 0 VAC)	Hours/Week	Credit (s)	Continuous Continuous (3I2) Max 40 40 40 40	Semester End Semester End 60 60 60	Marks (CIE+SEE) Max 100 100 100	3 3 3
ASH-MAT-215A BCA-122A	Course Title Core Core Core Core Core Core Core Core	Pe L ourse 3 3 4 Course 2	T ((CC) 0 0 0 0	P 0 0 0 0 VAC) 0	Hours/Week	Credit (s)	Continuous (EXamination Lexamination August 100 Lexamination August 100 Lexamination August 100 Lexamination August 100 A	SEE Semester End Examination	Marks (CIE+SEE) Max 100 100	3 3
ASH-MAT-215A BCA-122A BCA-215A BCA-202A	Course Title Core C Probability and Statistics Programming with Python Full Stack Development-1 (MERN) Value Added Quantitative Aptitude Skill Enhancer	Pe L ourse 3 3 3 d Cour	T (CC)	P 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Seme year/s.moH	Credit (s)	- IV	SEE) Max 60 60 60 60	Marks (CIE+SEE) Max 100 100 100 100	3 3 3
ASH-MAT-215A BCA-122A BCA-215A	Course Title Core Core Core Core Core Core Core Core	Pe L ourse 3 3 d Cour 2 nent C	T (CC) 0 0 0 course 0	P 0 0 0 0 VAC) 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	yean (New Year) (New Y	3 3 3 2 2 2	Continuous Continuous (3I2) Max 40 40 40 40	Semester End Semester End 60 60 60	Marks (CIE+SEE) Max 100 100 100	3 3 3
ASH-MAT-215A BCA-122A BCA-215A BCA-202A BCA-204A	Course Title Core C Probability and Statistics Programming with Python Full Stack Development-1 (MERN) Value Added Quantitative Aptitude Skill Enhancer Animation Discipline specific	Pe L ourse 3 3 d Cour 2 nent C	T (CC) 0 0 0 course 0	P 0 0 0 0 VAC) 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	yean (New Year) (New Y	3 3 3 2 2 2 2 (2)	V — IV — Continuons — Continuon	SEMESTEL END Semester End 60 60 60 60	Marks (CIE+SEE) Max 100 100 100 100	3 3 3 3
ASH-MAT-215A BCA-122A BCA-215A BCA-202A	Course Title Core Core Core Core Core Core Core Core	Pe L ourse 3 3 d Cour 2 nent C Electi 3	T (CC) 0 0 0 course (V 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	P 0 0 0 0 VAC) 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	yean way was a second with the second was a s	3 3 3 2 2 2	- IV	SEE) Max 60 60 60 60	Marks (CIE+SEE) Max 100 100 100 100	3 3 3
ASH-MAT-215A BCA-122A BCA-215A BCA-202A BCA-204A	Course Title Core C Probability and Statistics Programming with Python Full Stack Development-1 (MERN) Value Added Quantitative Aptitude Skill Enhancer Animation Discipline specific Elective-I	Pe L ourse 3 3 d Cour 2 nent C Electi 3	T (CC) 0 0 0 course (V 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	P 0 0 0 0 VAC) 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	yean way was a second with the second was a s	3 3 3 2 2 2 2 (2)	V — IV — Continuons — Continuon	SEMESTEL END Semester End 60 60 60 60	Marks (CIE+SEE) Max 100 100 100 100	3 3 3 3
ASH-MAT-215A BCA-122A BCA-215A BCA-202A BCA-204A BCA-252A	Course Title Core C Probability and Statistics Programming with Python Full Stack Development-1 (MERN) Value Adder Quantitative Aptitude Skill Enhancer Animation Discipline specific Elective-I Practicum	Pe L ourse 3 3 d Cour 2 ment C 2 Electi 3	T (CC) 0 0 0 0 course (V	P 0 0 0 0 VAC) 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	yean (New Year) (New Y	3 3 3 2 2 2 2 3 3	- IV - Outinuous -	60 60 60 60 60 60 60 60 60 60 60 60 60 6	Marks (CIE+SEE) Max 100 100 100 100 100	3 3 3 3 3
ASH-MAT-215A BCA-122A BCA-215A BCA-202A BCA-204A BCA-252A	Course Title Core Core Core Core Core Core Core Core	Pe L ourse 3 3 d Coun 2 nent C 2 Electi 3 1 Coun 0	T (CC) 0 0 0 course 0 course (F	P 0 0 0 VAC) 0 ce (SE 0 CC) 4	yean (New Year) (New Y	(\$) 3 3 3 3 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	- IV - IV - Continuous - Contin	60 60 60 60 60 60 60 60 60 60 60 60 60 6	Marks (CIE+SEE) Max 100 100 100 100 100 100	3 3 3 3 3 3

Note 2: The Industrial Internship shall be of 4 credits duration of 45-60 days after the 4th semester. If a student takes exit after 4th semester with Under Graduate Diploma in Computer Applications, marks of Industrial Internship (either done after 2nd or 4th semester) shall be counted in 4th semester itself.

40 104 88

1600

2000

3600

Grand Total (Exit with 2 years Diploma)

Scheme of Studies and Examinations (w.e.f. Session 2024 - 2025)											
Bachelor of Computer Applications Semester – V											
Course Code	Course Title	Period(s)		Period(s)		Hours/ Week	Credit (s)	Continuous Internal Examination	Semester End Exanination	Total Marks	Duration of Exam (Hours)
					Ħ		(CIE)	(SEE)	(CIE+SEE)	Dan	
		L	T	P			Max	Max	Max		
	Core C	ourse	(CC))							
BCA-212A	Data Communication and Computer Networks	3	0	0	3	3	40	60	100	3	
BCA-301A	Data Analysis using Excel	3	0	0	3	3	40	60	100	3	
BCA-218A	Full Stack Development-2 (MEAN)	3	0	0	3	3	40	60	100	3	
	Discipline specific	Electi	ve C	ourse	(DSI)					
BCA-351A	Elective-II	3	0	0	3	3	40	60	100	3	
	Skill Enhancen	ient C	ours	e (SI	C)						
BCA-371A	Seminar	0	0	2	2	1	100		100	3	
	Practicum	Cour	se (I	PC)							
BCA-373A	Data Analysis using Excel Lab	0	0	4	4	2	50	50	100	3	
BCA-375A	Full Stack Development-2 (MEAN) Lab	0	0	4	4	2	50	50	100	3	
	Industrial In	ternsl	hip (I	NTR)						
BCA-377A	Industrial Internship	0	0	0	0	4	100		100	3	
	Total	12	0	10	22	21	460	340	800		

Note 3: If a student pursues 3 years UG Programme without taking Exit option, the Industrial Internship (either done after 2nd or 4th semester) will be taken into account in 5th semester.

Scheme of Studies and Examinations (w.e.f. Session 2024 - 2025)														
Bachelor of Computer Applications Semester – VI														
Course Code	Course Title		Period(s)		Period(s)		Period(s)		Hours/ Week	Credit (s)	Continuous Internal Examination	O.	Total Marks	Duration of Exam (Hours)
			H				(CIE)	(SEE)	(CIE+SEE)) I				
		L	T	P			Max	Max	Max					
	Core Course (CC)													
BCA-224A	Data Mining and Warehousing	3	0	0	3	3	40	60	100	3				
BCA-302A	Machine Learning	3	0	0	3	3	40	60	100	3				
	Discipline specific	Electi	ve C	ourse	(DSI)								
BCA-352A	Elective-III	3	0	0	3	3	40	60	100	3				
	Skill Enhancer	nent C	ours	e (SI	C)									
BBA-304A	Entrepreneurship and Startups	2	0	0	2	2	40	60	100	3				
	Practicum	Cour	se (I	PC)										
BCA-372A	Data Mining and Warehousing Lab	0	0	4	4	2	50	50	100	3				
BCA-374A	Machine Learning Lab	0	0	4	4	2	50	50	100	3				
BCA-376A	Minor Project	0	0	8	8	4	50	50	100	3				
	Total	11	0	16	27	19	310	390	700					
Grand T	otal (Exit with 3 years Degree)	87	0	66	153	124	2270	2730	5000					

	Scheme of Studies and Examinations (w.e.f. Session 2024 - 2025)																
	Bachelor of Computer Applications Semester – VII (Honours)																
Course Code			Period(s)		Hours/ Week	Credit (s)	Continuous Internal Examination	Semester End Exanination	Total Marks	Duration of Exam (Hours)							
					#		(CIE)	(SEE)	(CIE+SEE)	D D							
		L	T	P			Max	Max	Max								
	Honour	Cours	e (H(C)													
BCA-451A	Design and Analysis of Algorithm	3	0	0	3	3	40	60	100	3							
BCA-453A	Optimization Techniques	3	0	0	3	3	40	60	100	3							
	Value Adde		rse (VAC)													
BT-ME-112A	Design Thinking and Innovation	2	0	0	2	2	40	60	100	3							
	Practicum		$\overline{}$														
BCA-471A	Design and Analysis of Algorithm Lab	0	0	4	4	2	50	50	100	3							
BCA-473A	Major Project-1	0	0	20	20	10	50	50	100	3							
	Total	8	0	24	32	20	220	280	500								
	GI CG I IF I		- /	C	C	•	2024 2	025)									
	Scheme of Studies and Examin																
Course Code	Bachelor of Computer Applica Course Title	Period(s)										Hours/Week	Credit (s)	Continuous Internal Examination	Semester End	Total Marks	Duration of Exam (Hours)
					Ħ		(CIE)	(SEE)	(CIE+SEE)) III							
		L	T	P			Max	Max	Max								
	Honour	Cours	e (H(C)													
BCA-315A	Cryptography and Network Security	3	0	0	3	3	40	60	100	3							
BCA-452A	Computer Graphics	3	0	0	3	3	40	60	100	3							
	Practicum	Cour	se (I	PC)													
		0	^	4	4	2	50	50	100	3							
BCA-472A	Computer Graphics Lab	U	0	4	4				100	_							
BCA-472A BCA-474A	Computer Graphics Lab Major Project-2	0	0	20	20	10	50	50	100	3							
		_	_	_	_	10 18		50 220		_							

	Scheme of Studies and Examinations (w.e.f. Session 2024 - 2025)									
Ba	chelor of Computer Applications S								ch)	
Course Code	Course Title	Period(s)		Hours/ Week	ours/ Week Credit (s)	Credit (s)	Continuous Internal Examination	Semester End Exanination	Total Marks	Duration of Exam (Hours)
					H		(CIE)	(SEE)	(CIE+SEE)	Dur
		L	T	P			Max	Max	Max	
	Honour (Cours	e (H(C)						
BCA-455A	Research Methodology	3	0	0	3	3	40	60	100	3
BCA-457A	Image Processing	3	0	0	3	3	40	60	100	3
	Value Added	l Cour	rse (VAC)						
BT-ME-112A	Design Thinking and Innovation	2	0	0	2	2	40	60	100	3
	Practicum		se (I	PC)						
BCA-475A	Image Processing Lab	0	0	4	4	2	50	50	100	3
BCA-473A	Major Project-1	0	0	20	20	10	50	50	100	3
	Total	8	0	24	32	20	220	280	500	
		_	_	_		_				
	Scheme of Studies and Examin								•.	
Ba	chelor of Computer Applications S	emes	ter-	– VI	II (H	lono			rch)	
Course Code	Course Title		riod((s)	Hours/ Week	Credit (s)	Continuous Internal Examination	Semester End Exanination	Total Marks	Duration of Exam (Hours)
					H		(CIE)	(SEE)	(CIE+SEE)	Dur
		L	T	P			Max	Max	Max	
	Practicum	Cour	se (I	PC)						
BCA-476A	Dissertation	0	0	36	36	18	100	100	200	3
	Total	0	0	36	36	18	100	100	200	
Grand Total (4	years Honours with Research Degree)	95	0	126	221	162	2590	3110	5700	

Abbreviations Used:

Abbreviation	Full Form	Description			
CC	Core Course	Compulsory core course for the programme, CC will be a theory course of 3 credits			
PC	Practicum Course	Compulsory practical course (software lab) of 2 credits			
INTR	Industrial Internship	 A student can do Industrial Internship of 45-60 days duration after the 2nd or 4th semester. It will be of 4 credits. If a student pursues 3 year UG Programme without taking Exit option, this internship (either done after 2nd or 4th semester) will be taken into account in 5th semester. If a student takes Exit after 2 years in UG Programme, this internship (either done after 2nd or 4th semester) will be taken into account in 4th semester. If a student takes Exit after 1 year in UG Programme, the mandatory internship done after 2nd semester will be taken into account in 2nd semester. 			
SEC	Skill Enhancement Course	These courses aim at imparting knowledge, practical skills, hands-on training and competencies, soft skills, etc. to enhance the employability of students.			
AEC	Ability Enhancement Courses	These courses aim at enabling the students to achieve competency in the English language with special emphasis on communication skills.			

VAC	Value-Added Course	This course aims to instil in students (i) Universal Human Values, (ii) Environmental Studies (iii) Quantitative Aptitude.
MDC	Multi-Disciplinary Course	These courses are based on introductory knowledge in a subject which is different from the main discipline of study to gain knowledge across the disciplines. Students are not allowed to choose or repeat courses already undergone at the Senior Secondary Level (Class XII) or disciplines of study under this category. Provided further that if a Multidisciplinary Course (MDC) across the discipline cannot be offered by a Department/ Institute, due to its constraints and available resources, then i) A subject from the same discipline can be offered as a MDC course if that subject also belongs to the list of subjects of some other discipline. ii) MDC can be opted out of Massive Open Online Courses (MOOCs) from NPTEL, SWAYAM. It shall be of minimum 2 credits.
DSE	Discipline Specific Elective Course	A discipline-specific elective course is a course aimed at imparting options for varied knowledge and skills in the specialized fields of a discipline/subject.
нс	Honour Course	A honour course in the 4 th year of the Honours or Honours with Research Degree Programme.

List of Discipline Specific Elective Courses

Elective No.	Semester	Course Code	Elective Course Name
Elective-I	IV	BCA-252A(i)	High Performance Networks
Elective-1	1 V	BCA-252A(ii)	Compiler Design
Elective-II	V	BCA-351A(i)	Software Project Management
Elective-II	V	BCA-351A(ii)	Theory of Computation
Elective-III	VI	BCA-352A(i)	Linux Operating System
		BCA-352A(ii)	Fundamentals of Cloud Computing

Note 4: Relative weightage of Continuous Internal Evaluation (CIE) and Semester End Examination (SEE), criteria of passing marks, evaluation procedure, and other guidelines are as per the Ordinance of Under Graduate Degree Programmes: Bachelor of Computer Applications, Bachelor of Computer Applications (Cloud Technology and Information Security), Bachelor of Computer Applications (Data Science).