



JAGADGURUKUL
UNIVERSITY

Faculty of Engineering & Technology

Bachelor of Computer Application
BCA
(2015-16)

Program Structure

BCA Course Structure (2015-16)

Semester - I

THEORY PAPERS		No. of Teaching Hours			Marks Allocation			
Code	Subject/Paper	L	T	P	IA	EA	Total	Credits
BCA 101	Computer Fundamentals	3	1	-	30	70	100	4
BCA 102	C Language	3	1	-	30	70	100	4
BCA 103	Mathematics	3	1	-	30	70	100	4
BCA 104	Basics of Internet Programming	3	1	-	30	70	100	4
BCA 105	Communication Skills	4	-	-	30	70	100	4
BCA 106	Principles of Management	3	1	-	30	70	100	4
PRACTICALS/VIVA-VOCE		No. of Teaching Hours			Sessional	Practical	Total	Credits
BCA 107	Computer Fundamentals & PC Computing Lab	-	-	2	30	20	50	1
BCA 108	C Language Lab	-	-	2	30	20	50	1
BCA 109	Internet Programming Lab	-	-	2	30	20	50	1
TOTAL		19	5	6	270	480	750	27

Semester - II

THEORY PAPERS		No. of Teaching Hours			Marks Allocation			
Code	Subject/Paper	L	T	P	IA	EA	Total	Credits
BCA 201	Digital Electronics	4	-	-	30	70	100	4
BCA 202	Computer Organization and Architecture	3	1	-	30	70	100	4
BCA 203	System Analysis & Design	4	-	-	30	70	100	4
BCA 204	Data Structure & Algorithms	3	1	-	30	70	100	4
BCA 205	Linux Environment	3	1	-	30	70	100	4
BCA 206	Environmental Studies	4	-	-	30	70	100	4
PRACTICALS/VIVA-VOCE		No. of Teaching Hours			Sessional	Practical	Total	Credits
BCA 207	Data Structure & Algorithms Lab	-	-	2	30	20	50	1
BCA 208	Linux Environment Lab	-	-	2	30	20	50	1
BCA 209	Personality Development Lab	-	-	2	30	20	50	1
TOTAL		21	3	6	270	480	750	27

Semester - III

THEORY PAPERS		No. of Teaching Hours			Marks Allocation			
Code	Subject/Paper	L	T	P	IA	EA	Total	Credits
BCA 301	Object Oriented Programming Using C++	3	1	-	30	70	100	4
BCA 302	Database Management System	3	1	-	30	70	100	4
BCA 303	Front End Design Tool (VB)	3	1	-	30	70	100	4
BCA 304	Managerial Personality Development	4	-	-	30	70	100	4
BCA 305	Technical Communication	3	1	-	30	70	100	4
BCA 306	Discrete Mathematics	3	1	-	30	70	100	4
PRACTICALS/VIVA-VOCE		No. of Teaching Hours			Sessional	Practical	Total	Credits
BCA 307	OOPS Using C++ Lab	-	-	2	30	20	50	1
BCA 308	DBMS Lab	-	-	2	30	20	50	1
BCA 309	Front End Design Tool (VB) Lab	-	-	2	30	20	50	1
TOTAL		19	5	6	270	480	750	27

Semester - IV

THEORY PAPERS		No. of Teaching Hours			Marks Allocation			
Code	Subject/Paper	L	T	P	IA	EA	Total	Credits
BCA 401	Operating Systems	3	1	-	30	70	100	4
BCA 402	Computer Oriented Numerical & Statistical Methods using C	3	1	-	30	70	100	4
BCA 403	Java Programming	3	1	-	30	70	100	4
BCA 404	Software Engineering	4	-	-	30	70	100	4
BCA 405	Data Mining & Data Warehousing	4	-	-	30	70	100	4
BCA 406	Communication Skills- Scientific & Technical Writing	3	1	-	30	70	100	4
PRACTICALS/VIVA-VOCE		No. of Teaching Hours			Sessional	Practical	Total	Credits
BCA 407	Java Lab	-	-	2	30	20	50	1
BCA 408	Software Engineering Lab	-	-	2	30	20	50	1
BCA 409	Communication Technical Lab	-	-	2	30	20	50	1
TOTAL		20	4	6	270	480	750	27

4-6 weeks training will be held after fourth semester, viva will be conducted in fifth sem.

Semester - V

THEORY PAPERS		No. of Teaching Hours			Marks Allocation			
Code	Subject/Paper	L	T	P	IA	EA	Total	Credits
BCA 501	Computer Networks	3	1	-	30	70	100	4
BCA 502	System Software	4	-	-	30	70	100	4
BCA 503	Advanced Internet Programming	3	1	-	30	70	100	4
BCA 504	Advance Java	3	1	-	30	70	100	4
BCA 505	Computer Graphics	3	1	-	30	70	100	4
BCA 506	E-Commerce	4	-	-	30	70	100	4
		No. of Teaching Hours			Sessional	Practical	Total	Credits
PRACTICALS/VIVA-VOCE								
BCA 507	Advance Internet Programming Lab	-	-	2	30	20	50	1
BCA 508	Advanced Java Lab	-	-	2	30	20	50	1
BCA 509	Summer Project Seminar	-	-	2	30	20	50	1
TOTAL		20	4	6	270	480	750	27

Semester - VI

THEORY PAPERS		No. of Teaching Hours			Marks Allocation			
Code	Subject/Paper	L	T	P	IA	EA	Total	Credits
BCA 601	Advance Computer Networks	3	1	-	30	70	100	4
BCA 602	Management Information System	4	-	-	30	70	100	4
BCA 603	Artificial Intelligence	3	1	-	30	70	100	4
Elective (any one)								
BCA 604A	.NET Programming	3	1	-	30	70	100	4
BCA 604B	Fundamental of PHP	3	1	-	30	70	100	4
BCA 604C	Principles of Accounting	3	1	-	30	70	100	4
BCA 604D	Intellectual Property Rights	3	1	-	30	70	100	4
Elective (any one)								
BCA 605A	Social Implications of IT	3	1	-	30	70	100	4
BCA 605B	Mobile Computing	3	1	-	30	70	100	4
BCA 605C	Cyber Ethics & Crime	3	1	-	30	70	100	4
BCA 605D	Entrepreneurship	3	1	-	30	70	100	4
		No. of Teaching Hours			Sessional	Practical	Total	Credits
PRACTICALS/VIVA-VOCE								
BCA 606	.NET/PHP Lab	-	-	2	30	20	50	1
BCA 607	Major Project	-	-	4	100	50	150	2
BCA 608	Seminar	-	-	2	30	20	50	1
TOTAL		16	4	8	310	440	750	24
Grand Total of Credits		115	25	38	1660	2840	4500	159

**L=LECTURER, T= TUTORIAL, P=PRACTICAL, IA=INTERNAL ASSESSMENT,
EA=EXTERNAL ASSESSMENT**

The student will submit a synopsis at the beginning of the semester for approval from the departmental committee in a specified format, thereafter he/she will have to present the progress of the work through seminars and progress reports. Seminar related to the project should be delivered one after starting of semester .The progress will be monitored through seminars and progress reports.

Note;--

1. The total number of the credits of BCA Program are = 159
2. Each student shall be required to appear for examinations in all courses. However, for the award of the degree a student shall be required to earn minimum of 149 credits.



JAGADGURUKUL
UNIVERSITY

Faculty of Engineering & Technology

Bachelor of Computer Application
BCA
(2016-17)

Program Structure

BCA Course Structure (2016-17)

Semester - I

THEORY PAPERS		No. of Teaching Hours			Marks Allocation			
Code	Subject/Paper	L	T	P	IA	EA	Total	Credits
BCA 101	Computer Fundamentals	3	1	-	30	70	100	4
BCA 102	C Language	3	1	-	30	70	100	4
BCA 103	Mathematics	3	1	-	30	70	100	4
BCA 104	Basics of Internet Programming	3	1	-	30	70	100	4
BCA 105	Communication Skills	4	-	-	30	70	100	4
BCA 106	Principles of Management	3	1	-	30	70	100	4
PRACTICALS/VIVA-VOCE		No. of Teaching Hours			Sessional	Practical	Total	Credits
BCA 107	Computer Fundamentals & PC Computing	-	-	2	30	20	50	1
BCA 108	C Language Lab	-	-	2	30	20	50	1
BCA 109	Internet Programming Lab	-	-	2	30	20	50	1
TOTAL		19	5	6	270	480	750	27

Semester - II

THEORY PAPERS		No. of Teaching Hours			Marks Allocation			
Code	Subject/Paper	L	T	P	IA	EA	Total	Credits
BCA 201	Digital Electronics	4	-	-	30	70	100	4
BCA 202	Computer Organization and Architecture	3	1	-	30	70	100	4
BCA 203	System Analysis & Design	4	-	-	30	70	100	4
BCA 204	Data Structure & Algorithms	3	1	-	30	70	100	4
BCA 205	Linux Environment	3	1	-	30	70	100	4
BCA 206	Environmental Studies	4	-	-	30	70	100	4
PRACTICALS/VIVA-VOCE		No. of Teaching Hours			Sessional	Practical	Total	Credits
BCA 207	Data Structure & Algorithms Lab	-	-	2	30	20	50	1
BCA 208	Linux Environment Lab	-	-	2	30	20	50	1
BCA 209	Personality Development Lab	-	-	2	30	20	50	1
TOTAL		21	3	6	270	480	750	27

Semester - III

THEORY PAPERS		No. of Teaching Hours			Marks Allocation			
Code	Subject/Paper	L	T	P	IA	EA	Total	Credits
BCA 301	Object Oriented Programming using C++	3	1	-	30	70	100	4
BCA 302	Database Management System	3	1	-	30	70	100	4
BCA 303	Front End Design Tool (VB)	3	1	-	30	70	100	4
BCA 304	Managerial Personality Development	4	-	-	30	70	100	4
BCA 305	Technical Communication	3	1	-	30	70	100	4
BCA 306	Discrete Mathematics	3	1	-	30	70	100	4
PRACTICALS/VIVA-VOCE		No. of Teaching Hours			Sessional	Practical	Total	Credits
BCA 307	OOPS Using C++ Lab	-	-	2	30	20	50	1
BCA 308	DBMS Lab	-	-	2	30	20	50	1
BCA 309	Front End Design Tool (VB) Lab	-	-	2	30	20	50	1
TOTAL		19	5	6	270	480	750	27

Semester - IV

THEORY PAPERS		No. of Teaching Hours			Marks Allocation			
Code	Subject/Paper	L	T	P	IA	EA	Total	Credits
BCA 401	Operating Systems	3	1	-	30	70	100	4
BCA 402	Computer Oriented Numerical & Statistical Methods Using C	3	1	-	30	70	100	4
BCA 403	Java Programming	3	1	-	30	70	100	4
BCA 404	Software Engineering	4	-	-	30	70	100	4
BCA 405	Data Mining & Data Warehousing	4	-	-	30	70	100	4
BCA 406	Communication Skills- Scientific & Technical Writing	3	1	-	30	70	100	4
PRACTICALS/VIVA-VOCE		No. of Teaching Hours			Sessional	Practical	Total	Credits
BCA 407	Java	-	-	2	30	20	50	1
BCA 408	Software Engineering Lab	-	-	2	30	20	50	1
BCA 409	Communication Technical Lab	-	-	2	30	20	50	1
TOTAL		20	4	6	270	480	750	27

4-6 weeks training will be held after fourth semester, viva will be conducted in fifth sem.

Semester - V

THEORY PAPERS		No. of Teaching Hours			Marks Allocation			
Code	Subject/Paper	L	T	P	IA	EA	Total	Credits
BCA 501	Computer Networks	3	1	-	30	70	100	4
BCA 502	System Software	4	-	-	30	70	100	4
BCA 503	Advanced Internet Programming	3	1	-	30	70	100	4
BCA 504	Advance Java	3	1	-	30	70	100	4
BCA 505	Computer Graphics	3	1	-	30	70	100	4
BCA 506	E-Commerce	4	-	-	30	70	100	4
PRACTICALS/VIVA-VOCE		No. of Teaching Hours			Sessional	Practical	Total	Credits
BCA 507	Advance Internet Programming Lab	-	-	2	30	20	50	1
BCA 508	Advance Java Lab	-	-	2	30	20	50	1
BCA 509	Summer Project Seminar	-	-	2	30	20	50	1
TOTAL		20	4	6	270	480	750	27

Semester - VI

THEORY PAPERS		No. of Teaching Hours			Marks Allocation			
Code	Subject/Paper	L	T	P	IA	EA	Total	Credits
BCA 601	Advance Computer Networks	3	1	-	30	70	100	4
BCA 602	Management Information System	4	-	-	30	70	100	4
BCA 603	Artificial Intelligence	3	1	-	30	70	100	4
Elective (any one)								
BCA 604A	.NET Programming	3	1	-	30	70	100	4
BCA 604B	Fundamental of PHP	3	1	-	30	70	100	4
BCA 604C	Principles of Accounting	3	1	-	30	70	100	4
BCA 604D	Intellectual Property Rights	3	1	-	30	70	100	4
Elective (any one)								
BCA 605A	Social Implications of IT	3	1	-	30	70	100	4
BCA 605B	Mobile Computing	3	1	-	30	70	100	4
BCA 605C	Cyber Ethics & Crime	3	1	-	30	70	100	4
BCA 605D	Entrepreneurship	3	1	-	30	70	100	4
PRACTICALS/VIVA-VOCE		No. of Teaching Hours			Sessional	Practical	Total	Credits
BCA 606	.NET/PHP Lab	-	-	2	30	20	50	1
BCA 607	Major Project	-	-	4	100	50	150	2
BCA 608	Seminar	-	-	2	30	20	50	1
TOTAL		16	4	8	310	440	750	24
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Faculty of Engineering & Technology

Bachelor of Computer Application
BCA
(2017-18)

Program Structure

BCA Course Structure (2017-18)

Semester - I

THEORY PAPERS		No. of Teaching Hours			Marks Allocation			
Code	Subject/Paper	L	T	P	IA	EA	Total	Credits
BCA 101	Computer Fundamentals	3	1	-	30	70	100	4
BCA 102	C Language	3	1	-	30	70	100	4
BCA 103	Mathematics	3	1	-	30	70	100	4
BCA 104	Basics of Internet Programming	3	1	-	30	70	100	4
BCA 105	Communication Skills	4	-	-	30	70	100	4
BCA 106	Principles of Management	3	1	-	30	70	100	4
PRACTICALS/VIVA-VOCE		No. of Teaching Hours			Sessional	Practical	Total	Credits
BCA 107	Computer Fundamentals & PC Computing	-	-	2	30	20	50	1
BCA 108	C Language Lab	-	-	2	30	20	50	1
BCA 109	Internet Programming Lab	-	-	2	30	20	50	1
TOTAL		19	5	6	270	480	750	27

Semester - II

THEORY PAPERS		No. of Teaching Hours			Marks Allocation			
Code	Subject/Paper	L	T	P	IA	EA	Total	Credits
BCA 201	Digital Electronics	4	-	-	30	70	100	4
BCA 202	Computer Organization and Architecture	3	1	-	30	70	100	4
BCA 203	System Analysis & Design	4	-	-	30	70	100	4
BCA 204	Data Structure & Algorithms	3	1	-	30	70	100	4
BCA 205	Linux Environment	3	1	-	30	70	100	4
BCA 206	Environmental Studies	4	-	-	30	70	100	4
PRACTICALS/VIVA-VOCE		No. of Teaching Hours			Sessional	Practical	Total	Credits
BCA 207	Data Structure & Algorithms Lab	-	-	2	30	20	50	1
BCA 208	Linux Environment Lab	-	-	2	30	20	50	1
BCA 209	Personality Development Lab	-	-	2	30	20	50	1
TOTAL		21	3	6	270	480	750	27

Semester - III

THEORY PAPERS		No. of Teaching Hours			Marks Allocation			
Code	Subject/Paper	L	T	P	IA	EA	Total	Credits
BCA 301	Object Oriented Programming using C++	3	1	-	30	70	100	4
BCA 302	Database Management System	3	1	-	30	70	100	4
BCA 303	Front End Design Tool (VB)	3	1	-	30	70	100	4
BCA 304	Managerial Personality Development	4	-	-	30	70	100	4
BCA 305	Technical Communication	3	1	-	30	70	100	4
BCA 306	Discrete Mathematics	3	1	-	30	70	100	4
PRACTICALS/VIVA-VOCE		No. of Teaching Hours			Sessional	Practical	Total	Credits
BCA 307	OOPS Using C++ Lab	-	-	2	30	20	50	1
BCA 308	DBMS Lab	-	-	2	30	20	50	1
BCA 309	Front End Design Tool (VB) Lab	-	-	2	30	20	50	1
TOTAL		19	5	6	270	480	750	27

Semester - IV

THEORY PAPERS		No. of Teaching Hours			Marks Allocation			
Code	Subject/Paper	L	T	P	IA	EA	Total	Credits
BCA 401	Operating Systems	3	1	-	30	70	100	4
BCA 402	Computer Oriented Numerical & Statistical Methods Using C	3	1	-	30	70	100	4
BCA 403	Java Programming	3	1	-	30	70	100	4
BCA 404	Software Engineering	4	-	-	30	70	100	4
BCA 405	Data Mining & Data Warehousing	4	-	-	30	70	100	4
BCA 406	Communication Skills- Scientific & Technical Writing	3	1	-	30	70	100	4
PRACTICALS/VIVA-VOCE		No. of Teaching Hours			Sessional	Practical	Total	Credits
BCA 407	Java	-	-	2	30	20	50	1
BCA 408	Software Engineering Lab	-	-	2	30	20	50	1
BCA 409	Communication Technical Lab	-	-	2	30	20	50	1
TOTAL		20	4	6	270	480	750	27
4-6 weeks training will be held after fourth semester, viva will be conducted in fifth sem.								

Semester - V

THEORY PAPERS		No. of Teaching Hours			Marks Allocation			
Code	Subject/Paper	L	T	P	IA	EA	Total	Credits
BCA 501	Computer Networks	3	1	-	30	70	100	4
BCA 502	System Software	4	-	-	30	70	100	4
BCA 503	Advanced Internet Programming	3	1	-	30	70	100	4
BCA 504	Advance Java	3	1	-	30	70	100	4
BCA 505	Computer Graphics	3	1	-	30	70	100	4
BCA 506	E-Commerce	4	-	-	30	70	100	4
<i>PRACTICALS/VIVA-VOCE</i>		No. of Teaching Hours			Sessional	Practical	Total	Credits
BCA 507	Advance Internet Programming Lab	-	-	2	30	20	50	1
BCA 508	Advance Java Lab	-	-	2	30	20	50	1
BCA 509	Summer Project Seminar	-	-	2	30	20	50	1
TOTAL		20	4	6	270	480	750	27

Semester - VI

THEORY PAPERS		No. of Teaching Hours			Marks Allocation			
Code	Subject/Paper	L	T	P	IA	EA	Total	Credits
BCA 601	Advance Computer Networks	3	1	-	30	70	100	4
BCA 602	Management Information System	4	-	-	30	70	100	4
BCA 603	Artificial Intelligence	3	1	-	30	70	100	4
Elective (any one)								
BCA 604A	.NET Programming	3	1	-	30	70	100	4
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Elective (any one)								
BCA 605A	Social Implications of IT	3	1	-	30	70	100	4
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BCA 605C	Cyber Ethics & Crime	3	1	-	30	70	100	4
BCA 605D	Entrepreneurship	3	1	-	30	70	100	4
<i>PRACTICALS/VIVA-VOCE</i>		No. of Teaching Hours			Sessional	Practical	Total	Credits
BCA 606	.NET/PHP Lab	-	-	2	30	20	50	1
BCA 607	Major Project	-	-	4	100	50	150	2
BCA 608	Seminar	-	-	2	30	20	50	1
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Faculty of Engineering & Technology

Bachelor of Computer Application
BCA
(2018-19)

Program Structure

BCA Course Structure (2018-19)

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BCA 105	Communication Skills	4	-	-	30	70	100	4
BCA 106	Principles of Management	3	1	-	30	70	100	4
PRACTICALS/VIVA-VOCE		No. of Teaching Hours			Sessional	Practical	Total	Credits
BCA 107	Computer Fundamentals Lab	-	-	2	30	20	50	1
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PRACTICALS/VIVA-VOCE		No. of Teaching Hours			Sessional	Practical	Total	Credits
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BCA 209	Personality Development	-	-	2	30	20	50	1
TOTAL		21	3	6	270	480	750	27

Semester - III

THEORY PAPERS		No. of Teaching Hours			Marks Allocation			
Code	Subject/Paper	L	T	P	IA	EA	Total	Credits
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BCA 302	Database Management System	3	1	-	30	70	100	4
BCA 303	Front End Design Tool (VB)	3	1	-	30	70	100	4
BCA 304	Managerial Personality Development	4	-	-	30	70	100	4
BCA 305	Technical Communication	3	1	-	30	70	100	4
BCA 306	Discrete Mathematics	3	1	-	30	70	100	4
PRACTICALS/VIVA-VOCE		No. of Teaching Hours			Sessional	Practical	Total	Credits
BCA 307	OOPS Using C++ Lab	-	-	2	30	20	50	1
BCA 308	Database Management System Lab	-	-	2	30	20	50	1
BCA 309	Front End Design Tool (VB) Lab	-	-	2	30	20	50	1
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BCA 404	Software Engineering	4	-	-	30	70	100	4
BCA 405	Data Mining & Data Warehousing	4	-	-	30	70	100	4
BCA 406	Communication Skills- Scientific & Technical Writing	3	1	-	30	70	100	4
PRACTICALS/VIVA-VOCE		No. of Teaching Hours			Sessional	Practical	Total	Credits
BCA 407	Java Programming Lab	-	-	2	30	20	50	1
BCA 408	Software Engineering Lab	-	-	2	30	20	50	1
BCA 409	Communication Technical Lab	-	-	2	30	20	50	1
TOTAL		20	4	6	270	480	750	27

4-6 weeks training will be held after fourth semester, viva will be conducted in fifth sem.

Semester - V

THEORY PAPERS		No. of Teaching Hours			Marks Allocation			
Code	Subject/Paper	L	T	P	IA	EA	Total	Credits
BCA 501	Computer Networks	3	1	-	30	70	100	4
BCA 502	System Software	4	-	-	30	70	100	4
BCA 503	Advanced Internet Programming	3	1	-	30	70	100	4
BCA 504	Advance Java	3	1	-	30	70	100	4
BCA 505	Computer Graphics	3	1	-	30	70	100	4
BCA 506	E-Commerce	4	-	-	30	70	100	4
PRACTICALS/VIVA-VOCE		No. of Teaching Hours			Sessional	Practical	Total	Credits
BCA 507	Advance Internet Programming Lab	-	-	2	30	20	50	1
BCA 508	Advance Java Lab	-	-	2	30	20	50	1
BCA 509	Summer Project Seminar	-	-	2	30	20	50	1
TOTAL		20	4	6	270	480	750	27

Semester - VI

THEORY PAPERS		No. of Teaching Hours			Marks Allocation			
Code	Subject/Paper	L	T	P	IA	EA	Total	Credits
BCA 601	Advance Computer Networks	3	1	-	30	70	100	4
BCA 602	Management Information System	4	-	-	30	70	100	4
BCA 603	Artificial Intelligence	3	1	-	30	70	100	4
Elective (any one)								
BCA 604A	.NET Programming	3	1	-	30	70	100	4
BCA 604B	Fundamental of PHP	3	1	-	30	70	100	4
BCA 604C	Principles of Accounting	3	1	-	30	70	100	4
BCA 604D	Intellectual Property Rights	3	1	-	30	70	100	4
Elective (any one)								
BCA 605A	Social Implications of IT	3	1	-	30	70	100	4
BCA 605B	Mobile Computing	3	1	-	30	70	100	4
BCA 605C	Cyber Ethics & Crime	3	1	-	30	70	100	4
BCA 605D	Entrepreneurship	3	1	-	30	70	100	4
PRACTICALS/VIVA-VOCE		No. of Teaching Hours			Sessional	Practical	Total	Credits
BCA 606	.NET/PHP Lab	-	-	2	30	20	50	1
BCA 607	Major Project	-	-	4	100	50	150	2
BCA 608	Seminar	-	-	2	30	20	50	1
TOTAL		16	4	8	310	440	750	24
Grand Total of Credits		115	25	38	1660	2840	4500	159

**L=LECTURER, T= TUTORIAL, P=PRACTICAL, IA=INTERNAL ASSESSMENT,
EA=EXTERNAL ASSESSMENT**

The student will submit a synopsis at the beginning of the semester for approval from the departmental committee in a specified format, thereafter he/she will have to present the progress of the work through seminars and progress reports. Seminar related to the project should be delivered one after starting of semester .The progress will be monitored through seminars and progress reports.

Note;--

1. The total number of the credits of BCA Program are = 159
2. Each student shall be required to appear for examinations in all courses. However, for the award of the degree a student shall be required to earn minimum of 149 credits.



JAGADGURUKUL
UNIVERSITY

Faculty of Engineering & Technology

Bachelor of Computer Application
BCA
(2019-20)

Program Structure

BCA Course Structure (2019-20)

Semester - I

THEORY PAPERS		No. of Teaching Hours			Marks Allocation			
Code	Subject/Paper	L	T	P	IA	EA	Total	Credits
BCA 101	Computer Fundamentals	3	1	-	30	70	100	4
BCA 102	C Language	3	1	-	30	70	100	4
BCA 103	Mathematics	3	1	-	30	70	100	4
BCA 104	Basics of Internet Programming	3	1	-	30	70	100	4
BCA 105	Communication Skills	4	-	-	30	70	100	4
BCA 106	Principles of Management	3	1	-	30	70	100	4
PRACTICALS/VIVA-VOCE		No. of Teaching Hours			Sessional	Practical	Total	Credits
BCA 107	Computer Fundamentals & PC Computing Lab	-	-	2	30	20	50	1
BCA 108	C Language Lab	-	-	2	30	20	50	1
BCA 109	Internet Programming Lab	-	-	2	30	20	50	1
TOTAL		19	5	6	270	480	750	27

Semester - II

THEORY PAPERS		No. of Teaching Hours			Marks Allocation			
Code	Subject/Paper	L	T	P	IA	EA	Total	Credits
BCA 201	Digital Electronics	4	-	-	30	70	100	4
BCA 202	Computer Organization and Architecture	3	1	-	30	70	100	4
BCA 203	System Analysis & Design	4	-	-	30	70	100	4
BCA 204	Data Structure & Algorithms	3	1	-	30	70	100	4
BCA 205	Linux Environment	3	1	-	30	70	100	4
BCA 206	Environmental Studies	4	-	-	30	70	100	4
PRACTICALS/VIVA-VOCE		No. of Teaching Hours			Sessional	Practical	Total	Credits
BCA 207	Data Structure & Algorithms Lab	-	-	2	30	20	50	1
BCA 208	Linux Environment Lab	-	-	2	30	20	50	1
BCA 209	Personality Development Lab	-	-	2	30	20	50	1
TOTAL		21	3	6	270	480	750	27

Semester - III

THEORY PAPERS		No. of Teaching Hours			Marks Allocation			
Code	Subject/Paper	L	T	P	IA	EA	Total	Credits
BCA 301	Object Oriented Programming Using C++	3	1	-	30	70	100	4
BCA 302	Database Management System	3	1	-	30	70	100	4
BCA 303	Front End Design Tool (VB)	3	1	-	30	70	100	4
BCA 304	Managerial Personality Development	4	-	-	30	70	100	4
BCA 305	Technical Communication	3	1	-	30	70	100	4
BCA 306	Discrete Mathematics	3	1	-	30	70	100	4
PRACTICALS/VIVA-VOCE		No. of Teaching Hours			Sessional	Practical	Total	Credits
BCA 307	OOPS Using C++ Lab	-	-	2	30	20	50	1
BCA 308	DBMS Lab	-	-	2	30	20	50	1
BCA 309	Front End Design Tool (VB) Lab	-	-	2	30	20	50	1
TOTAL		19	5	6	270	480	750	27

Semester - IV

THEORY PAPERS		No. of Teaching Hours			Marks Allocation			
Code	Subject/Paper	L	T	P	IA	EA	Total	Credits
BCA 401	Operating Systems	3	1	-	30	70	100	4
BCA 402	Computer Oriented Numerical & Statistical Methods Using C	3	1	-	30	70	100	4
BCA 403	Java Programming	3	1	-	30	70	100	4
BCA 404	Software Engineering	4	-	-	30	70	100	4
BCA 405	Data Mining & Data Warehousing	4	-	-	30	70	100	4
BCA 406	Communication Skills- Scientific & Technical Writing	3	1	-	30	70	100	4
PRACTICALS/VIVA-VOCE		No. of Teaching Hours			Sessional	Practical	Total	Credits
BCA 407	Java Lab	-	-	2	30	20	50	1
BCA 408	Software Engineering Lab	-	-	2	30	20	50	1
BCA 409	Communication Technical Lab	-	-	2	30	20	50	1
TOTAL		20	4	6	270	480	750	27

4-6 weeks training will be held after fourth semester, viva will be conducted in fifth sem.

Semester - V

THEORY PAPERS		No. of Teaching Hours			Marks Allocation			
Code	Subject/Paper	L	T	P	IA	EA	Total	Credits
BCA 501	Computer Networks	3	1	-	30	70	100	4
BCA 502	System Software	4	-	-	30	70	100	4
BCA 503	Advanced Internet Programming	3	1	-	30	70	100	4
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BCA 505	Computer Graphics	3	1	-	30	70	100	4
BCA 506	E-Commerce	4	-	-	30	70	100	4
		No. of Teaching Hours			Sessional	Practical	Total	Credits
PRACTICALS/VIVA-VOCE								
BCA 507	Advance Internet Programming Lab	-	-	2	30	20	50	1
BCA 508	Advanced Java Lab	-	-	2	30	20	50	1
BCA 509	Summer Project Seminar	-	-	2	30	20	50	1
TOTAL		20	4	6	270	480	750	27

Semester - VI

THEORY PAPERS		No. of Teaching Hours			Marks Allocation			
Code	Subject/Paper	L	T	P	IA	EA	Total	Credits
BCA 601	Advance Computer Networks	3	1	-	30	70	100	4
BCA 602	Management Information System	4	-	-	30	70	100	4
BCA 603	Artificial Intelligence	3	1	-	30	70	100	4
Elective (any one)								
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PRACTICALS/VIVA-VOCE								
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