



# SRI MANAKULA VINAYAGAR ENGINEERING COLLEGE

(An Autonomous Institution)

(Approved by AICTE, New Delhi and Affiliated to Pondicherry University)  
(Accredited by NAAC with 'A' Grade and Accredited by NBA-AICTE, New Delhi)  
Madagadipet, Puducherry



*Sixth Meeting of the Board of Studies*

*Department of Computational Studies*

for the Programme

**Bachelor of Computer Application**

*Venue*

First Floor, SAS Block

Sri Manakula Vinayagar Engineering College

Madagadipet, Puducherry – 605 107

*Date & Time*

*08-06-2023 & 02.30 pm to 4.30 pm*



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## Minutes of Board of Studies

The Sixth Meeting of the Board of Studies of the Department of Computational Studies was held on Friday, the **08<sup>th</sup> July 2023 at 02.30 pm** in the First Floor, SAS Block, Sri ManakulaVinayagar Engineering College with the Head of the Department in the chair.

The following members were present for the BoS meeting

Sl.No	Name of the Member with Designation and official Address	Responsibility in the BoS
1	<b>Dr. N. MOGANARANGAN, M.E., Ph.D.</b> Professor & Head, Department of Computational Studies, School of Arts & Science, Sri Manakula Vinayagar Engineering College (Autonomous) Madagadipet, Puducherry 605 107 <b>E-mail: moganarangan.cse@smvec.ac.in</b> <b>Mobile: 98945 33661</b>	Chairman
<b>External Members</b>		
2	<b>Dr. N. VIJAYALAKSHMI, M.C.A., Ph.D.</b> Associate Prof, Department of Computer Science, SRM Institute of Science and Technology (Autonomous) Specialization: IOT, Network Security. email: vijinatarajan23@gmail.com Mobile: 9941202829,	Pondicherry University Nominee
3	<b>Dr. A. MARTIN, M.C.A., M.Phil., M.E., Ph.D.</b> Asst. Prof, Department of Computer Science, School of Mathematics and Computer Science, Central University of Tamil Nadu, Thiruvarur. Specialization: Business Intelligence, Information Science and Engineering email:martin@cutn.ac.in Mobile: 8903756380,	Academic Council Nominee
4	<b>Dr. S. BEHIN SAM, M.Sc., M.Tech., Ph.D.</b> Associate Prof, Department of Computer Science, Dr. Ambedkar Arts and Science College Viyasarpadi, Chennai. Specialization:Data Mining, Artificial Intelligence. email:behinsam@gmail.com	Academic Council Nominee

	Mobile: 9176667525,	
5	<b>Mr. C. VIMAL RAJ</b> Systems Architect, TCS, Chennai. Email:vimal06vishwa@gmail.com Mobile: 9952578333	Member (Industry representative)
<b>Internal Members</b>		
6	<b>Mr. N. VELAN, M.C.A.,</b> Assistant Professor, Specialization: Computer Network Years of Experience: 1 Year Sri Manakula Vinayagar Engineering College E-mail: velancs.sas@smvec.ac.in Mobile: 8344577751	Member
7	<b>Mrs. A. SHAMSATH BEGUM, M.C.A.,</b> Assistant Professor, Specialization: Networking Years of Experience: 1 Year Sri Manakula Vinayagar Engineering College E-mail: shamsathbegum.sas@smvec.ac.in Mobile: 9500399774	Member
8	<b>Mrs. S. SAKTHIPRIYA, M.C.A.,</b> Assistant Professor Department of Computational Studies Sri Manakula Vinayagar Engineering College <b>Mail id:</b> sakthipriya.sas@smvec.ac.in <b>Ph:</b> +917639111224	Member
<b>Co-opted Members</b>		
1	<b>Dr. M.A. ISHRATH JAHAN M.A., M.Phil., Ph.D.,</b> Associate Professor Head, Dept. of English, SMVEC	Member
2	<b>Dr. J. MANIMEGALAI M.COM., Ph.D.,</b> Assistant Professor , Dept. of Commerce and Management, SMVEC	Member

## AGENDA OF THE MEETING

<b>Item No.:</b> <b>BOS/2022/SAS/UG/ CA/6.1</b>	<ul style="list-style-type: none"><li>❖ Welcome Address, Introduction about the Institution, Department and BoS Members.</li><li>❖ Confirmation of minutes of the fifth meeting of the Board of Studies.</li></ul>
<b>6.2</b>	<ul style="list-style-type: none"><li>❖ To discuss and approve the Curriculum Framework (1 to 6 Semester) under Regulation 2023 and Syllabi of 1st Semester for the Programme Bachelor of Computer Applications under Regulation 2023</li></ul>
<b>6.3</b>	<p>Discussion of the following as in the Regulation - 2023 of School of Arts and Science</p> <ul style="list-style-type: none"><li>❖ Admission eligibility criteria / norms to enroll as student in the specific programme as prescribed by UGC</li><li>❖ Conduct of Internal assessment test, model practical exams, award of internal assessment /Re Earn / Improvement / Evaluation Procedures.</li><li>❖ Value added Courses</li><li>❖ Department research activities</li></ul> <p>Professional Bodies activities and its outcome</p>
<b>6.4</b>	Any other item with the permission of the Chair

The Chairman proceeded with the presentation to deliberate on agenda items.

## **Minutes of the Meeting**

### **Item No.: BOS/2022/SAS/UG/CA/6.1**

- ❖ Dr. Moganarangan.N, Chairman, welcomed all the external and internal members. The meeting thereafter deliberated on agenda items that had been approved by the Chairman.
- ❖ The Board of studies members appreciated regarding the Minutes of the fifth Meeting of BoS and recommended the same to the Academic council.

### **Item No.: BOS/2022/SAS/UG/CA/6.2**

- ❖ To discuss and approve the Curriculum Framework (1 to 6 Semester) under Regulation 2023 and Syllabi of 1st Semester for the Programme Bachelor of Computer Applications under Regulation 2023

**The above corrections have been made in the curriculum and the details are given in Annexure- I**

### **Item No.: BOS/2022/SAS/UG/CA/6.3:**

Discussion of the following as in the Regulation - 2023 of School of Arts and Science



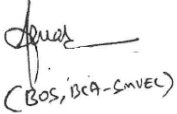



- ❖ Admission eligibility criteria / norms to enroll as student in the specific programme as prescribed by UGC
- ❖ Conduct of Internal assessment test, model practical exams, award of internal assessment /Re Earn / Improvement / Evaluation Procedures.
- ❖ Value added Courses
- ❖ Department research activities

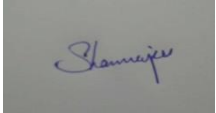
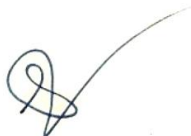
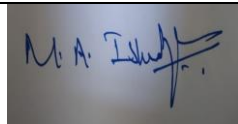
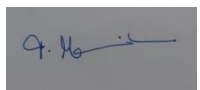
Professional Bodies activities and its outcome

The Board members appreciated the revised R-2023.

The Board of Studies approved the above suggestions for BCA Computer Applications. The meeting was concluded at 02:30 pm with vote of thanks by Dr. N. MOGANARANGAN, Professor Department of Computer Applications.

Minutes of the sixth Meeting of the Board of studies held on 08.06.2023 is signed by the members who attended the meeting.

No.	Name of the Member with Designation and official Address	Responsibility in the BoS	Signature
1	<b>Dr. N. MOGANARANGAN, M.E., Ph.D.</b> Professor & Head, Department of Computational Studies, School of Arts & Science, Sri Manakula Vinayagar Engineering College (Autonomous) Madagadipet, Puducherry 605 107 <b>E-mail: moganarangan.cse@smvec.ac.in</b> <b>Mobile: 98945 33661</b>	Chairman	
2	<b>Dr. N. VIJAYALAKSHMI, M.C.A., Ph.D.</b> Associate Prof, Department of Computer Science, SRM Institute of Science and Technology (Autonomous) Specialization: IOT, Network Security. email: vijinatarajan23@gmail.com Mobile: 9941202829,	University Nominee	
3	<b>Dr. A. MARTIN, M.C.A., M.Phil., M.E., Ph.D.</b> Asst. Prof, Department of Computer Science, School of Mathematics and Computer Science, Central University of Tamil Nadu, Thiruvavur. Specialization: Business Intelligence, Information Science and Engineering email:martin@cutn.ac.in Mobile: 8903756380,	Subject Expert (Academic Council Nominee)	
4	<b>Dr. S. BEHIN SAM, M.Sc., M.Tech., Ph.D.</b> Associate Prof, Department of Computer Science, Dr. Ambedkar Arts and Science College Viyasarpadi, Chennai. Specialization:Data Mining, Artificial Intelligence. email:behinsam@gmail.com Mobile: 9176667525,	Subject Expert (Academic Council Nominee)	
5	<b>Mr. C. VIMAL RAJ</b> Systems Architect, TCS, Chennai. Email:vimal06vishwa@gmail.com, Mobile: 9952578333	Industry Expert	
6	<b>Mr. N. VELAN, M.C.A.,</b> Assistant Professor, Specialization: Computer Network Years of Experience: 1 Year Sri Manakula Vinayagar Engineering College E-mail: velancs.sas@smvec.ac.in	Internal member	

	Mobile: 8344577751		
9	<b>Mrs. A. SHAMSATH BEGUM, M.C.A.,</b> Assistant Professor, Specialization: Networking Years of Experience: 1 Year Sri Manakula Vinayagar Engineering College E-mail: shamsathbegum.sas@smvec.ac.in Mobile: 9500399774	Internal member	
10	<b>Mrs. S. SAKTHIPRIYA, M.C.A., B.Ed.,</b> Assistant Professor Department of Computational Studies Sri Manakula Vinayagar Engineering College <b>Mail id:</b> sakthipriya.sas@smvec.ac.in <b>Ph:</b> +917639111224	Member	
<b>Co-opted Members</b>			
10	<b>Dr. M.A. ISHRATH JAHAN M.A., M.Phil., Ph.D.,</b> Associate Professor Head, Dept. of English, SMVEC	Internal member	
11	<b>Mr.P. KRISHNAMOORTHY M.Sc., M. Phil., B.Ed.,</b> Assistant Professor , Dept. of Mathematics School of Arts and Science, SMVEC	Internal member	

**Dr. N. MOGANARANGAN,**  
HOD / Dept. of Computational Studies,  
Chairman-BoS (BCA)

**Dean SAS**  
[Dr. S. Muthulakshmi]



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## **SCHOOL OF ARTS AND SCIENCE**

**Department of Computational Studies**

**BACHELOR OF COMPUTER SCIENCE**

**ACADEMIC REGULATIONS**

**2023(R-2023)**

**CURRICULUM AND SYLLABI**

**Annexure- I**



**PROGRAMME SPECIFIC OUTCOMES (PO'S)**  
**DEPARTMENT OF COMPUTATIONAL STUDIES**

<b>PO'S</b>	<b>STATEMENTS</b>
<b>PO1</b>	It provides an ability to apply knowledge of Mathematics, Computer software and hardware in practice. It enhances not only comprehensive understanding of the theory but practical also.
<b>PO2</b>	The program prepares the young professionals in wide range of areas such as Digital logics and computer architecture, Algorithms, Programming, Networking, Software Engineering, Information Security, Web Designing, Micro-processors and micro-controllers
<b>PO3</b>	The program equips to demonstrate the capabilities required to apply cross-functional business knowledge and technologies in solving real-world problems and to demonstrate use of appropriate techniques to effectively manage business challenges
<b>PO4</b>	curriculum is divided based on various streams specialization that is needed in the IT Domain. Hence a student can specialize himself/herself in a particular stream.
<b>PO5</b>	It provides an opportunity to prepare for the competitive examination and also getting admission to Higher Education and Government organizations.
<b>PO6</b>	Become employable in various IT companies as programmer, system engineer, software tester, junior programmer, web developer, system administrator, software developer etc.

**PROGRAMMING SPECIFIC OUTCOMES(PSOs)**  
**B.C.A( COMPUTER APPLICATIONS)**

<b>PSO</b>	<b>STATEMENTS</b>
<b>PSO1</b>	Understand the information, and can able to identify, locate, evaluate, and effectively for the issue or problem which arise.
<b>POS2</b>	Developing algorithm and practical approach in a logical manner
<b>POS3</b>	Acquire depth knowledge and can have clear understanding in advanced area of computer learning skills for the chosen course.

*R.D. Mohan Kumar*

## STRUCTURE FOR UNDERGRADUATE PROGRAMME

Sl. No	Course Category	Breakdown of Credits
1	Language	6
2	English	6
3	Discipline Specific Core Courses (DSC)	79
4	Discipline Specific Elective Courses (DSE)	12
5	Inter-Disciplinary C o r e courses (IDC)	16
6	Skill Enhancement Courses (SEC)	12
7	Employability Enhancement Courses (EEC*)	-
8	Ability Enhancement Compulsory Courses (AECC)	4
9	Open Elective (OE)	4
10	Extension Activity (EA)	-
11	Online Course ( OCC )	-
12	In-Plant Training (IT)	3
<b>Total</b>		<b>142</b>

### SCHEME OF CREDIT DISTRIBUTION – SUMMARY

Sl.No	Course Category	Credits per Semester						Total Credits
		I	II	III	IV	V	VI	
1	Language Modern Indian Language (MIL)	3	3	-	-	-	-	6
2	English (ENG)	3	3	-	-	-	-	6
3	Discipline Specific Core Courses (DSC)	12	12	12	12	16	15	79
4	Discipline Specific Elective Courses (DSE)	-	-	3	3	3	3	12
5	Inter-Disciplinary courses (IDC)	4	4	4	4	-	-	16
6	Skill Enhancement Courses (SEC)	2	2	2	2	2	2	12
7	Employability Enhancement Courses (EEC*)	-	-	-	-	-	-	-
8	Ability Enhancement Courses (AEC)	1	1	1	1	-	-	4
9	Open Elective (OE)	-	-	2	2	-	-	4
10	Extension Activity (EA)	-	-	-	-	-	-	-
11	Online Course (OCC)	-	-	-	-	-	-	-
12	In-Plant Training (IT)	-	-	-	3	-	-	3
<b>Total</b>		<b>25</b>	<b>25</b>	<b>24</b>	<b>27</b>	<b>21</b>	<b>20</b>	<b>142</b>

*\* EEC will not be included for the computation of "Total of credits" as well as "CGPA" calculation*

*R.D. Mohan Kumar*

SEMESTER – I										
S. No	Course Code	Course Title	Category	Periods			Credits	Max. Marks		
				L	T	P		CAM	ESM	Total
<b>Theory</b>										
1	A23TAT101C / A23FRT101C	Tamil - I / French – I	MIL	3	1	0	3	25	75	100
2	A23GET101C	General English – I	ENG	3	1	0	3	25	75	100
3	A23CPT101C	Problem Solving using C	DSC	4	0	0	4	25	75	100
4	A23CPT102C	Digital Logic and Computer Organization	DSC	4	0	0	4	25	75	100
5	A23MAD102C	Computational Mathematics	IDC	3	1	0	4	25	75	100
<b>Practical</b>										
6	A23CPL101C	PROGRAMMING IN C LAB	DSC	0	0	4	2	50	50	100
7	A23CPL102C	DIGITAL LAB	DSC	0	0	4	2	50	50	100
<b>Skill Enhancement Course</b>										
8	A23ENSA02C	SOFT SKILL LAB	SEC	0	0	4	2	100	0	100
<b>Ability Enhancement Course</b>										
9	A23AETA01C	PUBLIC ADMINISTRATION	AEC	0	0	2	1	100	0	100
<b>Employment Enhancement Course</b>										
10	A23CAC101D	WEB PROGRAMING - I	EEC	0	0	4	0	100	0	100
							<b>25</b>	<b>525</b>	<b>475</b>	<b>1000</b>

*R.D. Mohan Kumar*

SEMESTER – II										
S · N o	Course Code	Course Title	Category	Periods			Credits	Max. Marks		
				L	T	P		CAM	ESM	Total
<b>Theory</b>										
1	A23TAT202C / A23FRT202C	TAMIL II / FRENCH - II	MIL	3	0	0	3	25	75	100
2	A23GET202C	GENERAL ENGLISH - II	ENG	3	0	0	3	25	75	100
3	A23CPT203C	FUNDAMENTALS OF IT	DSC	4	0	0	4	25	75	100
4	A23CPT204C	DATA STRUCTURE AND ALGORITHMS	DSC	4	0	0	4	25	75	100
5	A23MAD205 C	DISCRETE MATHEMATICS	IDC	3	1	0	4	25	75	100
<b>Practical</b>										
6	A23CPL203C	FUNDAMENTALS OF IT LAB	DSC	0	0	4	2	50	50	100
7	A23CPL204C	DATA STRUCTURES LAB	DSC	0	0	4	2	50	50	100
<b>Skill Enhancement Course</b>										
8	A23ENSA01C	Communication Skills Lab	SEC	0	0	4	2	100	0	100
<b>Ability Enhancement Course</b>										
9	A23AETA02C	ENVIRONMENTAL STUDIES	AEC	0	0	2	1	100	0	100
<b>Employment Enhancement Course</b>										
10	A23CAC202D	WEB PROGRAMING - II	EEC	0	0	4	0	100	0	100
<b>Extension Activities</b>										
11	A23EAS201C	National Service Scheme	EA	0	0	2	0	100	0	100
							<b>25</b>	<b>625</b>	<b>475</b>	<b>1100</b>

*R.D. Mohan Kumar*

SEMESTER – III										
S. No	Course Code	Course Title	Category	Periods			Credits	Max. Marks		
				L	T	P		CAM	ESM	Total
<b>Theory</b>										
1	A23CAT301D	PYTHON LANGUAGE AND ITS APPLICATIONS	DSC	4	0	0	4	25	75	100
2	A23CPT305C	PROGRAMMING IN C++	DSC	4	0	0	4	25	75	100
3	A23CAEXXX	DISCIPLINE SPECIFIC ELECTIVE- I	DSE	3	0	0	3	25	75	100
4	A23MAD308C	NUMERICAL METHODS	IDC	3	1	0	4	25	75	100
5	A23XXO30XX	OPEN ELECTIVE-I	OE	2	0	0	2	25	75	100
<b>Practical</b>										
6	A23CAL301D	PYTHON PROGRAMMING LAB	DSC	0	0	4	2	50	50	100
7	A23CPL305C	PROGRAMMING IN C++	DSC	0	0	4	2	50	50	100
<b>Skill Enhancement Course</b>										
8	A23MASA01C	QUANTITATIVE APTITUDE AND LOGICAL REASONING	SEC	0	0	4	2	100	0	100
<b>Ability Enhancement Course</b>										
9	A23AETA03C	INDIAN CONSTUTION	AEC	0	0	2	1	100	0	100
<b>Employment Enhancement Course</b>										
10	A23CAC303D	JAVA	EEC	0	0	4	0	100	0	10
							<b>24</b>	<b>525</b>	<b>475</b>	<b>1000</b>

*R.D. Mohan Kumar*

SEMESTER – IV										
S. No	Course Code	Course Title	Category	Periods			Credits	Max. Marks		
				L	T	P		CAM	ESM	Total
<b>Theory</b>										
1	A23CPT406C	PROBLEM SOLVING USING JAVA	DSC	4	0	0	4	25	75	100
2	A23CPT407C	DATABASE MANAGEMENT SYSTEMS CONCEPTS	DSC	4	0	0	4	25	75	100
3	A23MAD410C	STATISTICS AND PROBABILITY	IDC	3	0	0	4	25	75	100
4	A23CAE4XXXX	DISCIPLINE SPECIFIC ELECTIVE –II	DSE	3	1	0	3	25	75	100
5	A23XXO40XX	OPEN ELECTIVE-II	OE	2	0	0	2	25	75	100
<b>Practical</b>										
6	A23CPL406C	PROGRAMMING IN JAVA LAB	DSC	0	0	4	2	50	50	100
7	A23CPL407C	DBMS LAB	DSC	0	0	4	2	50	50	100
<b>Skill Enhancement Course</b>										
8	A23CAS401C	ANDROID APPDEVELOPMENT	SEC	0	0	4	2	100	0	100
<b>Ability Enhancement Course</b>										
9	A23AETA04C	VALUE EDUCATION	AEC	0	0	2	1	100	0	100
<b>Employment Enhancement Course</b>										
10	A23CAC404D	EXPLORING JAVA	EEC	0	0	4	0	100	0	100
11	A23CAN401D	INTERNSHIP	DSC	0	0	3	3	100	0	100
							<b>27</b>	<b>625</b>	<b>475</b>	<b>1100</b>

*R.D. Mohan Kumar*

SEMESTER - V										
S. No	Course Code	Course Title	Category	Periods			Credits	Max. Marks		
				L	T	P		CAM	ESM	Total
<b>Theory</b>										
1	A23CAT502D	OPERATING SYSTEM CONCEPTS	DSC	4	0	0	4	25	75	100
2	A23CPT509C	SOFTWARE ENGINEERING	DSC	4	0	0	4	25	75	100
4	A23CAT504D	ARTIFICIAL INTELLIGENCE AND ITS APPLICATIONS	DSC	4	0	0	4	25	75	100
5	A23CAEXXXX	DISCIPLINE SPECIFIC	DSE	3	0	0	3	25	75	100
<b>Practical</b>										
6	A23CAL502D	UNIX LAB	DSC	0	0	4	2	50	50	100
7	A23CAL503D	MINI PROJECT ( JAVA / PYTHON / WEB )	DSC	0	0	4	2	50	50	100
<b>Skill Enhancement Course</b>										
8	A23CAS502D	RESEARCH METHODOLOGY	SEC	0	0	4	2	100	0	100
<b>Online Certification Course</b>										
9	A23CAM501D	NPTEL / SWAYAM	OCC	0	0	0	0	100	0	100
							<b>21</b>	<b>400</b>	<b>400</b>	<b>800</b>

*R.D. Mohan Kumar*

SEMESTER - VI										
S.No	Course Code	Course Title	Category	Periods			Credits	Max. Marks		
				L	T	P		CAM	ESM	Total
<b>Theory</b>										
1	A23CAT605D	WEB TECHNOLOGY	DSC	4	0	0	4	25	75	100
2	A23CAT606D	.NET FRAMEWORK	DSC	4	0	0	4	25	75	100
3	A23CAEXXXX	DISCIPLINE SPECIFIC ELECTIVE -IV	DSE	3	0	0	3	25	75	100
<b>Practical</b>										
4	A23CAL604D	.NET TECHNOLOGY LAB	DSC	0	0	10	2	50	50	100
5	A23CAP601D	PROJECT WORK & VIVA-VOCE	DSC	0	0	10	5	40	60	100
<b>Skill Enhancement Course</b>										
6	A23CAS603D	ENTREPRENEURIAL SKILLS	SEC	0	0	4	2	100	0	100
							<b>20</b>	<b>265</b>	<b>335</b>	<b>600</b>

*R.D. Mohan Kumar*



Department	Tamil		Programme:BCA COMPUTER APPLICATIONS								
Semester	First		Course Category Code: MIL			*End Semester Exam Type: TE					
CourseCode	A23TAT101C		Periods/Week			Credit	Maximum Marks				
			L	T	P	C	CAM	ESE	TM		
Course Name	TAMIL – I		3	-	-	3	25	75	100		
(Common to B.Sc., BBA., B.COM., BCA., B.COM CS.,)											
Prerequisite	+2 வகுப்பில் தமிழை ஒரு பாடமாக கொண்டிருக்க வேண்டும்.										
Course Objectives	<ul style="list-style-type: none"> <li>செவ்விலக்கிய தன்மை கொண்ட தமிழ்மொழியின் சிறப்பினை எடுத்துரைப்பதாக இப்பாடத்திட்டம் அமைக்கப்பட்டுள்ளது.</li> <li>இரண்டாயிரம் ஆண்டுகாலத் தமிழின் தொன்மையையும் வரலாற்றையும் அதன் விழுமியங்களையும் பண்பாட்டையும் எடுத்துரைப்பதாக இப்பாடத்திட்டம் அமைக்கப்பட்டுள்ளது.</li> <li>தமிழ் இலக்கியம் உள்ளடக்கத்திலும், வடிவத்திலும் பெற்றமாற்றங்கள், அதன் சிந்தனைகள், அடையாளங்கள் ஆகியவற்றைக் காலந்தோறும் எழுதப்பட்ட இக்கியங்களின் வழியாகக் கூறுவதற்கு இப்பாடத்திட்டம் அமைக்கப்பட்டுள்ளது.</li> <li>வாழ்வியல் சிந்தனைகள், ஒழுக்கவியல் கோட்பாடுகள், சமத்துவம், சூழலியல் எனப் பல கூறுகளை மாணவர்களுக்கு எடுத்துரைக்கும் விதத்தில் இப்பாடத்திட்டம் உருவாக்கப்பட்டுள்ளது.</li> <li>சிந்தனை ஆற்றலைப் பெருக்குவதற்குத் தாய்மொழியின் பங்களிப்பினை உணர்த்த இப்பாடத்திட்டம் அமைக்கப்பட்டுள்ளது.</li> </ul>										
	Course Outcome	<b>On completion of the course, the students will be able to</b>							BT Mapping (Highest Level)		
		CO1	இலக்கியங்கள் உணர்த்தும் வாழ்வியல் நெறிமுறைகளைப் பேணிநடத்தல்.							K3	
		CO2	நமது எண்ணத்தை வெளிப்படுத்தும் கருவியாகத் தாய்மொழியைப் பயன்படுத்துதல்.							K3	
		CO3	தகவல் தெர்ப்புக்குத் தாய்மொழியின் முக்கியத்துவத்தை உணர்தல்.							K3	
CO4		தாய்மொழியின் சிறப்பை அறிதல்.							K3		
CO5		இலக்கிய இன்பங்களை நுகரும் திறன்களை வளர்த்தல்.							K3		
UNIT-I	இக்கால சிறுகதை		இலக்கியம்- மரபுக்கவிதைகள்- புதுக்கவிதைகள்-			Periods: 09					
	<ul style="list-style-type: none"> <li>மரபுக்கவிதைகள் - பாரதியார்-வெள்ளிப் பனிமலையின் மீதுலாவுவோம்... (13 பாடல்கள்)- பாரதிதாசன்-புரட்சிக்கவி (பேரன்புக் கொண்டவரே...முதல் - கவிஞனுக்கும் காதலிக்கும் மீட்சித்தார் வரை) தங்கப்பா - பனிப்பாறை நுனிகள் - வாழ்க்கை ஓவியம். புதுக்கவிதைகள்-அப்துல் ரகுமான் - வடலூரும் வார்தாவும் - யுகி - உயிர்ப்பு (இயற்கையின் எலும்பு முறிப்பு) - சிறுகதை -ஆர்.சூடாமணி - சாம்பலுக்குள்.</li> </ul>									CO1	
UNIT-II	நாடகம் -உரைநடை- நாவல்					Periods: 09					
	<ul style="list-style-type: none"> <li>நாடகம் - பிரபஞ்சன் - முட்டை - உரைநடை - இரா.வேங்கடாசலபதி - அந்தக் காலத்தில் காப்பி இல்லை -நாவல் - இரா.முருகவேள் - மிளிர்கல்</li> </ul>									CO2	
UNIT-III	பக்தி இலக்கியம்-சைவம்-வைணவம்-கிறித்துவம்-இஸ்லாம்					Periods: 09					
	<ul style="list-style-type: none"> <li>பக்தி இலக்கியம் -சைவம்-திருஞானசம்பந்தர் - முதல் திருமுறை - தோடுடையசெவியன்...பாடல் மட்டும் - திருநாவுக்கரசர் நான்காம் திருமுறை - கூற்றாயினவாறு...பாடல் மட்டும்- சுந்தரர் - ஏழாம் திருமுறை - பித்தாரிணைகூட...பாடல் மட்டும் மாணிக்கவாசகர் - திருவாசகம் - புல்லாய் புழுவாய்...பாடல் மட்டும் - திருமுலர் - திருமந்திரம் - ஆர்க்கும் இடுமின்...பாடல் மட்டும் - காரைக்காலம்மையார்-திருவிருட்டை மணிமாலை - அன்பால் அடைவதெவ்வாறு...பாடல் மட்டும். வைணவம் பொய்கையாழ்வார் - வையம் தகளியாய்...பாடல் மட்டும் -பூதத்தாழ்வார் - அன்பே தகளியாய்...பாடல் மட்டும் - பேயாழ்வார் திருக்கண்டேன் பொன்மேனி...பாடல் மட்டும் - நம்மாழ்வார் - திருவாய்மொழி - உளன் எனின்...பாடல் மட்டும் - பெரியாழ்வார் பெரியாழ்வார் திருமொழி - வாக்குத் தூய்மை...பாடல் மட்டும் -ஆண்டாளர் - நாச்சியார் திருமொழி- என்பு உருகி இனவேல்...பாடல் மட்டும் - கிறித்துவம் - இரட்சண்ய மனோகரம் - ஆவிக்குறுவெந்துயர்...முதல் உணையல்லது பற்றுதோ வரை இஸ்லாம் - குணக்குடி மஸ்தான் சாகிபு- ரகுமான் கண்ணி -அடைத்த மனக்கோட்டை...முதல் என்கண் வரை</li> </ul>									CO3	
UNIT-IV	சிறநிலக்கியம் - முத்தொள்ளாயிரம் - உலா- கலம்பகம்- பள்ளு- இடைக்காலப் புலவர்கள்					Periods: 09					
	<ul style="list-style-type: none"> <li>சிறநிலக்கியம் - முத்தொள்ளாயிரம் - 1.வேறுறுகைப்பிச்சு சுரையாய்...2.மாலை விலைபகர்வார்... 3.என்னை உரையல் ...எனத் தொடங்கும் பாடல்கள் மட்டும் - உலா - குலோத்துங்கசோழன் உலா - தானை அரவிந்தச் சாதர்...முதல் நிலவென்றான் வரை - கலம்பகம் -திருவரங்கக்கலம்பகம் - உருமாறிப் பலபிற்பும்...முதல் ஆடர் வாசல் வரை - பள்ளு - முக்கூடற்பள்ளு - நாட்டுவளம் - கறைபட்டுள்ளது...எனத்தொடங்கும் பாடல் மட்டும் -தூது-அழகர் கிள்ளைவிடு தூது - இன்சொல்லை...முதல் உபதேசமாக உரைப்பாய் வரை</li> <li>இடைக்காலப் புலவர்கள் - இராமலிங்க அடிகள் - மஹாதேவமாலை-படித்தேன்...முதல் பொய் உலகியல் வரை - வீரமாமுனிவர் திருக்காவலூர்க் கலம்பகம் - தழை-போதவிழ்ப்;...எனத்தொடங்கும் பாடல் மட்டும் - மு.முஹம்மதுதஹா - .கௌதுமுஹிய்யித்தீன்</li> </ul>									CO4	

K. D. M. S. S. S.

பிள்ளைத் தமிழ் - வயிறுபுடைக்க உண்கின்றீர்...பாடல் மட்டும்.			
<b>UNIT-V</b>	<b>மொழிப்பயிற்சி-இலக்கிய வரலாறு</b>	<b>Periods: 09</b>	
<ul style="list-style-type: none"> <li>மொழிப்பயிற்சி - 1.வலிமிகும் இடங்கள் ,வலிமிகா இடங்கள்.- 2.அகரவரிசைப்படுத்துதல்.-3.நேர்காணல் - இலக்கிய வரலாறு - இக்கால இலக்கியம், பக்தி இலக்கியம், சிற்றிலக்கியம் குறித்த பாடப்பகுதியை ஒட்டியது.</li> </ul>			<b>CO5</b>
<b>Lecture Periods: 45</b>	<b>Tutorial Periods:-</b>	<b>PracticalPeriods:-</b>	<b>TotalPeriods:45</b>
<b>Text Books</b>			
<ul style="list-style-type: none"> <li>பாரதியார் – பாரதியார் கவிதைகள், முனைந நுனவைழை, ரீடிடனாநன துரநெ 2இ 2020.</li> <li>சிவகுமார். எஸ்., - கொங்குதேர் வாழ்க்கை, பாடல் தொகுப்பு நூல் - தொகுதி -1 யுனைடெட் ரைட்டர்ஸ், சென்னை -86. முதற்பதிப்பு 2003.</li> <li>குடாமணி.ஆர். - தனிமைத் தளிர், தேர்ந்தெடுத்த சிறுகதைகள், காலச்சுவடு பதிப்பகம், முதல் பதிப்பு: செப்டம்பர் 2013.</li> <li>பிரபஞ்சன் - ஜீவநதி (நாடகங்கள்) – கவிதா பப்ளிகேன், 8, மாசிலாமணி தெரு, பாண்டிபுஜார், தி.நகர், சென்னை -600 017</li> <li>முருகவேள். இரா., - மிளிரகல், ஐம்பொழில் பதிப்பகம், திருப்பூர், இரண்டாம் பதிப்பு, 2014.</li> </ul>			
<b>Reference Books</b>			
<ul style="list-style-type: none"> <li>வல்லிக்கண்ணன், புதுக்கவிதையின் தோற்றமும் வளர்ச்சியும், ஸ்ரீசெண்பகா பதிப்பகம், ஜனவரி,1, 2020.</li> <li>சிற்பிபாலசுப்பிரமணியம் மற்றும் நிலபத்மநாபன் (ப.ஆ.சி.) – புதிய தமிழ் இலக்கிய வரலாறு, தொகுதி-1,2,3, சாகித்திய அகாடெமி, புதுடெல்லி, 2013.</li> <li>பாக்கியமேரி, வகைமை நோக்கில் தமிழ் இலக்கிய வரலாறு (செம்மை மற்றும் விரிவுப் பதிப்பு), பாரிநிலையம். சென்னை,</li> <li>ஆனந்தன், முனைவர்.சு., - தமிழ் இலக்கிய வரலாறு, கண்மணி பதிப்பகம், திருச்சி-2. இருபத்தி மூன்றாம் பதிப்பு– 2015.</li> <li>பரந்தாமனார், அ.கி., - நல்ல தமிழ் எழுத வேண்டுமா, பாரி நிலையம், சென்னை, 1998.</li> </ul>			
<b>Web References</b>			
1. <a href="http://www.tamilvu.org">http://www.tamilvu.org</a> – 2. <a href="http://www.tamilweb.com">http://www.tamilweb.com</a> – 3. <a href="http://www.tamilkodal.com">http://www.tamilkodal.com</a> – 4. <a href="http://www.store.tamillexican.com">www.store.tamillexican.com</a> 5. <a href="http://www.kala.tamilforu.blogspot.com">www.kala.tamilforu.blogspot.com</a> 6. <a href="http://www.noolagam.com">www.noolagam.com</a>			

\* TE – Theory Exam, LE – Lab Exam

### COs/POs/PSOs Mapping

COs	Program Outcomes (POs)					Program Specific Outcomes (PSOs)		
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO 3
1	3	3	3	3	3	3	3	3
2	3	3	3	3	3	3	3	3
3	3	2	3	3	2	3	3	3
4	2	3	1	3	2	2	2	3
5	3	3	3	3	3	3	3	3

Correlation Level: 1 - Low, 2 - Medium, 3 – High

### Evaluation Method

Assessment	Continuous Assessment Marks (CAM)					End Semester Examination (ESE) Marks	Total Marks
	CAT 1	CAT 2	Model Exam	Assignment*	Attendance		
Marks	10	5	5	5	5	75	100

\* Application oriented / Problem solving / Design / Analytical in content beyond the syllabus

*K. D. Mahalingam*

Department	<b>French</b>	Programme: <b>BCA COMPUTER APPLICATIONS</b>						
Semester	<b>FIRST</b>	Course Category Code: <b>MIL</b>	*End Semester Exam Type : <b>TE</b>					
Course Code	<b>A23FRT101C</b>	Periods/Week			Credit	Maximum Marks		
		L	T	P	C	CAM	ESE	TM
Course Name	<b>FRENCH I</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>25</b>	<b>75</b>	<b>100</b>
(Common to B.A., B.SC., and BCA Branches)								
Prerequisite	Basic knowledge of French language							
Course Objective	To introduce the basics of French language to the students							
	To enable the students to read, understand and write simple sentences							
	To help them to grasp the fundamentals of French grammar							
	To make the students to formulate correct phrases							
	To introduce them French and Francophone countries and their cultures							
Course Outcomes	<b>On completion of the course, the students will be able to</b>							BT Mapping
								(Highest Level)
	<b>CO1</b>	have a general understanding of the language						<b>K3</b>
	<b>CO2</b>	analyze and interpret simple phrases written in French						<b>K3</b>
	<b>CO3</b>	have the basics of French grammar						<b>K3</b>
	<b>CO4</b>	communicate and ask basic questions in French language						<b>K3</b>
<b>CO5</b>	appreciate the diversity and multiplicity of French and Francophone world						<b>K3</b>	
<b>UNIT-I</b>	<b>S'introduire</b>				<b>Periods:09</b>			
1. Le francais, les Francais, la France 2. Je m'appelle Elise, et vous ? 3. Saluer, se presenter, remercier 4. Vous dansez ? D'accord 5. Interroger quelqu'un et donner des informations								
<b>UNIT-II</b>	<b>Demander des questions sur quelqu'un</b>				<b>Periods:09</b>			
1. Monica, Yokiko et compagnie 2. Dire ce qu'on l'aime 3. Les voisins de Sophie 4. Demander des informations sur quelqu'un								
<b>UNIT-III</b>	<b>Expliquer quelque chose</b>				<b>Periods:09</b>			
1. Tu vas au Luxembourg ? 2. Dire où on va, dire d'où on vient 3. Nous venons pour l'inscription 4. A vélo, en train, en avion... 5. Expliquer un itinéraire, proposer quelque chose								
<b>UNIT-IV</b>	<b>Poser des questions et commander</b>				<b>Periods:09</b>			
1. Pardon monsieur, le BHV s'il vous plait 2. Au marché 3. Acheter quelque chose, demander le prix 4. On déjeune ici ? 5. Aller au restaurant, comprendre un menu								
<b>UNIT-V</b>	<b>Inviter et proposer quelque chose</b>				<b>Periods:09</b>			
1. On va chez ma copine ? 2. Proposer quelque chose 3. Demander et donner des informations sur quelqu'un 4. Chez Susana								



5. Etre invité chez quelqu'un			
<b>Lecture Periods: 45</b>	<b>Tutorial Periods:</b>	<b>Practical Periods:-</b>	<b>Total Periods:45</b>
<b>Text Books</b>			
1. Sylvie Poisson Quinton and Michèle Maheo, <i>Festival 1 Méthode de Français</i> , CLE editions, 2009			
2. Nathalie Hirschsprung and Tony Tricot, <i>Cosmopolite 1</i> , Hachette editions, 2017			
3. Caroline Veltcheff and Stanley Hilton, <i>Preparation du Delf A1</i> , Hachette editions, 2011			
<b>Reference Books</b>			
1. Régine Mérieux and Yves Loiseau, <i>Latitudes 1</i> , Didier editions, 2017			
2. Annie Berthet and Emmanuelle Daili, <i>Alter Ego + A1</i> , Hachette editions, 2012			
3. Bruno Giradeau, <i>Réussir le Delf A1</i> , Didier editions, 2019			
4. Richard Lescure, <i>Delf A1 150 Activités</i> , Langers and CLE, 2005			
5. Manisha Verma, <i>La grammaire élémentaire française</i> , Notion Press, 2010			
<b>Web References</b>			
1. <a href="https://www.tv5monde.com">https://www.tv5monde.com</a>			
2. <a href="https://www.rfi.fr">https://www.rfi.fr</a>			
3. <a href="https://www.lemonde.fr">https://www.lemonde.fr</a>			
4. <a href="https://www.frenchpodcasts.com">https://www.frenchpodcasts.com</a>			
5. <a href="https://www.coursera.org">https://www.coursera.org</a>			

\* TE – Theory Exam, LE – Lab Exam

### COs/POs/PSOs Mapping

COs	Program Outcomes (PO)					Program Specific Outcomes (PSOs)		
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3
1	3	3	3	3	3	3	3	3
2	3	3	3	3	2	3	3	3
3	3	3	3	3	3	3	2	3
4	2	3	2	2	3	3	3	3
5	3	3	3	3	3	3	3	3

Correlation Level: 1 - Low, 2 - Medium, 3 – High

### Evaluation Method

Assessment	Continuous Assessment Marks (CAM)					End Semester Examination (ESE) Marks	Total Marks
	CAT 1	CAT 2	Model Exam	Assignment*	Attendance		
Marks	10	5	5	5	5	75	100

\* Application oriented / Problem solving / Design / Analytical in content beyond the syllabus

*R.D. Mahalingam*

Department	<b>ENGLISH</b>		Programme: <b>BCA COMPUTER APPLICATIONS</b>						
Semester	<b>FIRST</b>		Course Category Code: <b>ENG</b>			End Semester Exam Type: <b>TE</b>			
Course Code	<b>A23GET101C</b>		Periods / Week			Credit	Maximum Marks		
			L	T	P	C	CAM	ESE	TM
Course Name	<b>GENERAL ENGLISH - I</b>		<b>3</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>25</b>	<b>75</b>	<b>100</b>
(Common to B.A., B.SC., AND BCA Branches)									
Prerequisite	Basic part-two language and knowledge gained from Grammar and Vocabulary								
<b>Course Objectives</b>	To recognize the rhythms, metrics and other aspects of Literature								
	To read a variety of texts critically and proficiently								
	To enable the students to enjoy the flair of literature through the work of great writer								
	To make the students to know the functions of basic grammar								
	To enable them understanding the intrinsic nuances of writing in English language								
<b>Course Outcomes</b>	<b>On completion of the course, the students will be able to</b>								BT Mapping
									(Highest Level)
	<b>CO1</b>	comprehend and discuss the various facets of selected poems							<b>K3</b>
	<b>CO2</b>	analyze and interpret texts written in English							<b>K3</b>
	<b>CO3</b>	read drama with graduate-level interpretive and analytical proficiency							<b>K3</b>
	<b>CO4</b>	improve the fluency and formation of grammatically correct sentence							<b>K3</b>
<b>CO5</b>	enhance the writing skills for specific purposes							<b>K3</b>	
<b>UNIT-I</b>	<b>POETRY</b>					<b>Periods: 09</b>			
6. Rudyard Kipling – <i>IF</i> 7. William Wordsworth – <i>Daffodils</i> 8. Percy Bysshe Shelley – <i>Ozymandias</i> 9. William Ernest Henley – <i>Invictus</i> 10. Rabindranath Tagore – <i>On the Nature of Love</i>									<b>CO1</b>
<b>UNIT-II</b>	<b>PROSE</b>					<b>Periods: 09</b>			
5. Bertrand Russell – <i>The Road to Happiness</i> 6. Charles Lamb – <i>A Dissertation upon Roast Pig</i>									<b>CO2</b>
<b>UNIT-III</b>	<b>SHORT STORIES</b>					<b>Periods: 09</b>			
6. Oscar Wilde – <i>The Devoted Friend</i> 7. R. K. Narayan – <i>God and the Cobbler</i>									<b>CO3</b>
<b>UNIT-IV</b>	<b>DRAMA</b>					<b>Periods: 09</b>			
6. H H Munro – <i>The Death Trap</i> 7. J.M. Synge – <i>Riders to the Sea</i>									<b>CO4</b>
<b>UNIT-V</b>	<b>GRAMMAR AND COMPOSITION</b>					<b>Periods: 09</b>			
6. Parts of Speech 7. Subject-Verb Agreement 8. Letter Writing 9. Essay Writing									<b>CO5</b>
<b>Lecture Periods: 45</b>			<b>Tutorial Periods: 0</b>			<b>Practical Periods: -</b>		<b>Total Periods: 45</b>	
<b>Text Books</b>									



4. Narayan, R.K, *Malgudi days*, Indian Thought Publication, 2019
5. Synge John Millington, *Riders to the Sea*, Sahitya Sarowar Publisher, 2022
6. P. C. Wren, H. Martin, *High School Wren and Martin English Grammar and Composition*, S. Chand & Company Pvt. Ltd, 2022.

**Reference Books**

1. Lamb, Charles, *Selected Prose*, Penguin Classics Publication, 2<sup>nd</sup> Edition, 2013.
2. S.C. Gupta, *English Grammar & Composition Very Useful for All Competitive Examinations*, Arihant Publications, 2014.
3. Saki, H. H. Munro, F. Carruthers Gould, *The Complete Works of Saki: Illustrated Edition: Novels, Short Stories, Plays, Sketches & Historical Works, including Reginald, The Chronicles of Clovis, ... The Death-Trap*, The Westminster Alice Kindle Edition, e-artnow, 2018.
4. J.M. Synge, S.C. Narula. *Riders to the Sea*. Surjeet Publication. 2018.
5. S.C.Gupta. *A Handbook for Letter Writing*. Arihant Publication. 2016.

**Web References**

6. <https://www.englishcharity.com/of-love-by-francis-bacon-explanation/>
7. <https://www.gradesaver.com/charles-lamb-essays/study-guide/summary-a-dissertation-upon-roast-pig>
8. <https://allpoetry.com/On-The-Nature-Of-Love>
9. <http://sittingbee.com/god-and-the-cobbler-r-k-narayan/>
10. <https://www.toppr.com/guides/essays/>

\* TE – Theory Exam, LE – Lab Exam

**COs/POs/PSOs Mapping**

COs	Program Outcomes (POs)					Program Specific Outcomes (PSOs)		
	PO 1	PO 2	PO 3	PO 4	PO 5	PSO 1	PSO 2	PSO 3
1	3	3	3	3	3	3	3	3
2	3	3	3	3	3	3	3	3
3	3	2	3	3	2	3	3	3
4	2	3	2	1	2	2	3	2
5	3	3	3	3	3	3	3	3

**Correlation Level:**

High	Moderate	Low
3	2	1

**Evaluation Method**

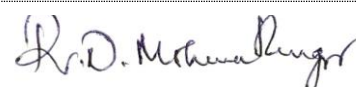
Assessment	Continuous Assessment Marks (CAM)					End Semester Examination (ESE) Marks	Total Marks
	CAT 1	CAT 2	Model Exam	Assignment*	Attendance		
Marks	10	5	5	5	5	75	100

\* Application oriented / Problem solving / Design / Analytical in content beyond the syllabus





Department	<b>Computational Studies</b>		Programme: <b>BCA COMPUTER APPLICATIONS</b>						
Semester	<b>First</b>		Course Category Code: <b>DSC</b>			*End Semester Exam Type: <b>TE</b>			
Course Code	<b>A23CPT101C</b>		Periods / Week			Credit	Maximum Marks		
			L	T	P	C	CAM	ESE	TM
Course Name	<b>PROBLEM SOLVING USING C</b>		<b>4</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>25</b>	<b>75</b>	<b>100</b>
(common to B.Sc (CS) & BCA)									
Prerequisite	Basic knowledge in C Programming								
Course Outcome	<i>After the completion of this course, the students will be able to:</i>								BT Mapping (Highest Level)
	<b>CO1</b>	Describing the basic introduction about C programming.							<b>K2</b>
	<b>CO2</b>	Incorporating the use of sequential, selection and repetition control structures into a program.							<b>K3</b>
	<b>CO3</b>	Develop the concepts of looping and arrays.							<b>K3</b>
	<b>CO4</b>	Design and develop programs using Functions and Pointers.							<b>K4</b>
	<b>CO5</b>	Understand the File management Operations and Pre-processor Directives.							<b>K4</b>
<b>UNIT-I</b>	<b>INTRODUCTION TO C</b>					<b>Periods: 12</b>			
Fundamentals of Computer: Computer Definition - Block Diagram of Computer - Types of Computer - Characteristics of Computer - Applications of Computer. C programming: Overview of C - Constants - Compiling a C Program - Variables and Data Types - Technical Difference between Keywords and Identifiers -Types of C Qualifiers and format specifiers - Operators and Expressions - Operators Precedence -Type conversion - Input-Output Statements.									<b>CO1</b>
<b>UNIT-II</b>	<b>DECISION MAKING</b>					<b>Periods: 12</b>			
Decision making and branching - Relational operators – Logical operators - if – if else - if else if – nested if, Switch-case.									<b>CO2</b>
<b>UNIT-III</b>	<b>LOOPING AND ARRAYS</b>					<b>Periods: 12</b>			
Looping: while - do while – for – break – continue - nested loop. Arrays: One Dimensional Arrays-Two-Dimensional Arrays-Multi-Dimensional Array-Dynamic arrays-Character Arrays and String-Sorting – Searching.									<b>CO3</b>
<b>UNIT-IV</b>	<b>FUNCTIONS, POINTERS</b>					<b>Periods: 12</b>			
Functions: Introduction - Definition – Declaration – Categories of Functions - Nesting of Functions, Recursive functions - Passing Arrays to Functions - Strings – String library function. Pointers: Introduction - Declaring Pointer Variables - Initialization of Pointer Variables - Accessing the address of a variable - Accessing a variable thorough Pointer - Chain of Pointers - Pointer Expressions - Pointers and arrays – Pointers and functions – Call by Reference - Pointers and character strings - Array of Pointers - Pointers and Structures.									<b>CO4</b>
<b>UNIT-V</b>	<b>STRUCTURES AND UNIONS, FILE MANAGEMENT</b>					<b>Periods: 12</b>			
User defined data types: Introduction - Structure: definition - declaration - Arrays of Structures - Nested structures- Passing structures to functions - Union - Enumeration and Typedef. Introduction to File Handling in C, Input and Output operations on a file - Error Handling - Random access to files - Command Line Arguments. Introduction to Pre-Processor - Macro substitution directives - File inclusion directives - Conditional Compilation Directives - Miscellaneous directives.									<b>CO5</b>
<b>Lecture Periods: 60</b>			<b>Tutorial Periods: -</b>			<b>Practical Periods: -</b>			<b>Total Periods: 60</b>
<b>Text Books</b>									



1. Balagurusamy. E, "Programming in ANSI C", Tata McGraw Hill, 8<sup>th</sup> Edition, 2019.
2. Byron S Gottfried and Jitendar Kumar Chhabra, "Programming with C", Tata McGraw Hill Publishing Company, 4<sup>th</sup> Edition, New Delhi, 2015.
3. Herbert Schildt, "C: The Complete Reference", McGraw Hill, 4<sup>th</sup> Edition, 2014.
4. Yashwant Kanetkar, "Let us C", BPB Publications, 16<sup>th</sup> Edition, 2017.
5. Archana Kumar, "Computer Basics with Office Automation", Dream tech Press – Wiley Publisher, 2019.
6. ReemaThareja, "Fundamentals of Computing & C Programming" Oxford University Press, 2012.

### Reference Books

1. Ashok N Kamthane, "Computer Programming", Pearson education, 2<sup>rd</sup> Impression, 2012.
2. VikasVerma, "A Workbook on C ", Cengage Learning, 2<sup>rd</sup> Edition, 2012.
3. Dr. P. Rizwan Ahmed, "Office Automation", Margham Publications, 2016.
4. P.Visu, R.Srinivasan and S.Koteeswaran, "Fundamentals of Computing and Programming", 4<sup>th</sup> Edition, SriKrishna Publications, 2012.
5. PradipDev, ManasGhoush, "Programming in C", 2<sup>rd</sup> Edition, Oxford University Press, 2011.

### Web References

1. <https://www.programiz.com/c-programming>
2. <https://www.geeksforgeeks.org/c-language-set-1-introduction/>
3. <https://www.tutorialspoint.com/cprogramming>
4. <https://www.assignment2do.wordpress.com/.../solution-programming-in-ansi-c>
5. <https://nptel.ac.in/courses/106/104/106104128/>
6. <https://www.coursera.org/courses?query=c%20programming>
7. <https://www.udemy.com/course/c-programming-for-beginners-/>

\* TE – Theory Exam, LE – Lab Exam

### COs/POs/PSOs Mapping

COs	Program Outcomes (POs)						Program Specific Outcomes (PSOs)		
	PO1	PO2	PO3	PO4	PO5	PO6	PSO1	PSO2	PSO3
1	3	2	3	3	2	2	2	2	3
2	3	2	2	3	3	3	2	2	2
3	2	2	2	2	3	3	3	2	2
4	3	3	2	2	2	2	2	2	3
5	2	3	2	2	3	3	3	3	3

Correlation Level: 1 - Low, 2 - Medium, 3 – High

### Evaluation Method

Assessment	Continuous Assessment Marks (CAM)					End Semester Examination (ESE) Marks	Total Marks
	CAT 1	CAT 2	Model Exam	Assignment*	Attendance		
Marks	10	5	5	5	5	75	100

\* Application oriented / Problem solving / Design / Analytical in content beyond the syllabus

*R.D. Mahalingam*



Department	<b>Computational Studies</b>			Programme: <b>BCA COMPUTER APPLICATIONS</b>						
Semester	<b>First</b>			Course Category Code: <b>DSC</b> *End Semester Exam Type: <b>TE</b>						
Course Code	<b>A23CPT102C</b>			Periods / Week			Credit	Maximum Marks		
				L	T	P	C	CAM	ESE	TM
Course Name	<b>DIGITAL LOGIC AND COMPUTER ORGANIZATION</b>			<b>4</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>25</b>	<b>75</b>	<b>100</b>
(common to B.Sc (CS) & BCA)										
Prerequisite	Basic Knowledge in logic gates and memory									
Course Outcome	<i>After the completion of this course, the students will be able to:</i>									BT Mapping (Highest Level)
	<b>CO1</b>	Explain the concepts of Digital design and number systems.								<b>K2</b>
	<b>CO2</b>	Design the digital system using combinational system design.								<b>K2</b>
	<b>CO3</b>	Design the digital system using Sequential system design.								<b>K3</b>
	<b>CO4</b>	Explain fundamentals of Computer systems.								<b>K3</b>
	<b>CO5</b>	Explain memory organization and CPU in computer systems.								<b>K4</b>
<b>UNIT-I</b>	<b>INTRODUCTION TO DIGITAL DESIGN</b>						<b>Periods: 12</b>			
Data Representation - Data Types - Number Systems - Complements - Arithmetic Operations - Representations - Fixed Point, Floating Point - Error detection codes - Binary Codes- Logic Gates - Boolean Algebra - Map Simplification - Karnaugh maps: SOP and POS forms - QuineMcClusky method										<b>CO1</b>
<b>UNIT-II</b>	<b>COMBINATIONAL CIRCUIT DESIGN</b>						<b>Periods: 12</b>			
Combinational Circuits, Half adder - full adder - code converters - combinational circuit design - Multiplexers and Demultiplexers – encoders – decoders - Combinational design using Mux and Demux.										<b>CO2</b>
<b>UNIT-III</b>	<b>SEQUENTIAL CIRCUIT DESIGN</b>						<b>Periods: 12</b>			
Sequential Circuit Design, Flip flops (RS, Clocked RS, D, JK, JK Master Slave, T) - Counters - Shift registers and their types - Counters: Synchronous and Asynchronous counters.										<b>CO3</b>
<b>UNIT-IV</b>	<b>COMPUTER ORGANIZATION</b>						<b>Periods: 12</b>			
Instruction Codes - Computer Registers - Computer Instructions - Timing And Control - Instruction Cycle - Memory Reference Instructions - I/O And Interrupt - Machine Language - Assembly Language - Assembler -. Peripheral Devices - Input-Output Interface - Asynchronous Data Transfer - Modes Of Transfer - Priority Interrupt - DMA - IOP - Serial Communication										<b>CO4</b>
<b>UNIT-V</b>	<b>MEMORY ORGANIZATION AND CPU</b>						<b>Periods: 12</b>			
Memory Hierarchy - Main Memory - Auxiliary Memory - Associative Memory - Cache Memory - Virtual Memory - Memory Management Hardware - CPU: General Register Organization - Control Word - Stack Organization - Instruction Format - Addressing Modes - Data Transfer And Manipulation - Program Control.										<b>CO5</b>
<b>Lecture Periods: 60</b>			<b>Tutorial Periods: -</b>			<b>Practical Periods: -</b>			<b>Total Periods: 60</b>	
<b>Text Books</b>										
<ol style="list-style-type: none"> <li>Morris Mano M, "Digital Logic and Computer Design", Pearson Education, 4<sup>th</sup> Edition, 2014</li> <li>Carl Hamacher, ZvonkoVranesic, SafwatZaky, "Computer Organization", 5<sup>th</sup> Edition, McGraw Hill, 2002.</li> <li>V.Rajaraman, T. Radhakrishnan, "Digital Logic and Computer Design", PHI Learning, 2006.</li> </ol>										
<b>Reference Books</b>										
<ol style="list-style-type: none"> <li>B Ram, Computer Fundamentals: Architecture and Organization (TWO COLOUR EDITION), New AgeInternational (P) Ltd Publishers, 6<sup>th</sup> Edition 2020.</li> <li>FLOYD, Digital Fundamentals, PEARSON INDIA, 11<sup>th</sup> Edition.</li> <li>Alan B.Marcovitz, "Introduction to Logic design", Tata McgrawHill, 2<sup>rd</sup> Edition, 2005.</li> </ol>										
<b>Web References</b>										



1. <https://www.sanfoundry.com/best-reference-books-computer-organization-architecture/>
2. <http://www.cuc.ucc.ie/CS1101/David%20Tarnoff.pdf>
3. [https://www.tutorialspoint.com/computer\\_logical\\_organization/index.htm](https://www.tutorialspoint.com/computer_logical_organization/index.htm)

\* TE – Theory Exam, LE – Lab Exam

### COs/POs/PSOs Mapping

COs	Program Outcomes (POs)						Program Specific Outcomes (PSOs)		
	PO1	PO2	PO3	PO4	PO5	PO6	PSO1	PSO2	PSO3
1	2	3	3	2	2	2	3	2	3
2	3	2	2	3	3	3	2	3	2
3	3	2	2	2	3	3	3	2	2
4	3	3	2	2	2	2	2	3	3
5	2	3	2	2	3	3	3	3	3

Correlation Level: 1 - Low, 2 - Medium, 3 – High

### Evaluation Method

Assessment	Continuous Assessment Marks (CAM)					End Semester Examination (ESE) Marks	Total Marks
	CAT 1	CAT 2	Model Exam	Assignment*	Attendance		
Marks	10		5	5	5	75	100

\* Application oriented / Problem solving / Design / Analytical in content beyond the syllabus

*R.D. Mohan Kumar*

Department	<b>MATHEMATICS</b>		Programme: <b>BCA COMPUTER APPLICATIONS</b>						
Semester	<b>First</b>		Course Category Code: <b>IDC</b>			*End Semester Exam Type: <b>TE</b>			
Course Code	<b>A23MAD102C</b>		Periods / Week			Credit	Maximum Marks		
			L	T	P	C	CAM	ESE	TM
Course Name	<b>COMPUTATIONAL MATHEMATICS</b>		<b>2</b>	<b>1</b>	<b>-</b>	<b>3</b>	<b>25</b>	<b>75</b>	<b>100</b>
(Common to B.Sc. (CS) and BCA Branches)									
Prerequisite	Basic Electrical Engineering, Laplace Transform								
Course Outcome	<b>On completion of the course, the students will be able to</b>								BT Mapping (Highest Level)
	<b>CO1</b>	Acquire the knowledge about matrices and able to compute Eigen values and Eigen.							<b>K3</b>
	<b>CO2</b>	Analyze and solve the non-homogenous system of linear equations.							<b>K4</b>
	<b>CO3</b>	Find expansion of trigonometric values and solution of trigonometric solution.							<b>K2</b>
	<b>CO4</b>	Analyze and solve Differential Equations.							<b>K4</b>
	<b>CO5</b>	Understand the use of Integrals and able to apply it							<b>K2</b>
<b>UNIT-I</b>	<b>MATRICES</b>					<b>Periods: 12</b>			
Rank of a Matrix - Characteristic equation - Eigen values and Eigen vectors of a real matrix -Properties of Eigen values and Eigenvectors - Diagonalization of matrices - Reduction of a quadratic form to canonical form by orthogonal transformation.									<b>CO1</b>
<b>UNIT-II</b>	<b>APPLICATIONS OF MATRICES</b>					<b>Periods: 12</b>			
Matrix Representation of Data - Methods of Solving non-homogenous system of linear equations: Matrix Inverse method - Determinants method - Elimination method - Gauss Jordan.									<b>CO2</b>
<b>UNIT-III</b>	<b>TRIGONOMETRY</b>					<b>Periods: 12</b>			
Expansions of $\cos n\theta$ , $\sin n\theta$ , $\tan n\theta$ in terms of $\theta$ - Powers of sines and cosines of $\theta$ in terms of functions of multiples of $\theta$ – Expansions of $\sin \theta$ and $\cos \theta$ in a series of ascending powers of $\theta$ .									<b>CO3</b>
<b>UNIT-IV</b>	<b>DIFFERENTIAL EQUATIONS</b>					<b>Periods: 12</b>			
Linear differential equations of higher order with constant coefficients - simultaneous linear differential equations, solution by variation of parameters method.									<b>CO4</b>
<b>UNIT-V</b>	<b>INTEGRALS AND APPLICATIONS</b>					<b>Periods: 12</b>			
Double integrals and Triple Integrals. Applications: Areas by double integration and volumes by triple integration.									<b>CO5</b>
<b>Lecture Periods: 45</b>			<b>Tutorial Periods: 15</b>			<b>Practical Periods: -</b>		<b>Total Periods: 60</b>	
<b>Text Books</b>									
1. M.K. Venkataraman, Engineering Mathematics (First Year), 2 <sup>nd</sup> Edition, The National Publishing Company, Madras, 2001.									
2. M.K. Venkataraman, Engineering Mathematics (Third Year-Part A), The National Publishing Company, Madras, 2001.									
3. S. Durai Pandian and Laxmi Durai Pandian (1984) Trigonometry. Emerald Publishers, Chennai.									
<b>Reference Books</b>									
1. N.P. Bali and Manish Goyal, A Text Book of Engineering Mathematics, Lakshmi Publications, New Delhi, 2007.									
2. Grewal B.S., Higher Engineering Mathematics, Khanna Publishers, New Delhi, 41 <sup>st</sup> Edition, 2011.									
3. A. Singaravelu "Algebra and Trigonometry", Vol.-I Meenakshi Agency, Chennai (2003).									
4. P. Kandasamy, K. Thilagavathy, "Mathematics of B.SC", Vol I & II, S. Chand Company Ltd, New Delhi — 2004.									
5. Shanti Narayan, "Integral Calculus", S Chand & Co. New Delhi, 2001.									
<b>Web References</b>									
1. <a href="https://www.youtube.com/watch?v=xyAuNHPsq-g">https://www.youtube.com/watch?v=xyAuNHPsq-g</a>									
2. <a href="https://link.springer.com/chapter/10.1007/978-1-4757-2024-2_1">https://link.springer.com/chapter/10.1007/978-1-4757-2024-2_1</a>									
3. <a href="https://ncert.nic.in/ncerts/l/lemh203.pdf">https://ncert.nic.in/ncerts/l/lemh203.pdf</a>									
4. <a href="https://www.khanacademy.org/math/precalculus/x9e81a4f98389efdf:trig/x9e81a4f98389efdf:inverse-trig/v/inverse-trig-functions-arcsin">https://www.khanacademy.org/math/precalculus/x9e81a4f98389efdf:trig/x9e81a4f98389efdf:inverse-trig/v/inverse-trig-functions-arcsin</a>									
5. <a href="https://www.khanacademy.org/math/precalculus/x9e81a4f98389efdf:trig/x9e81a4f98389efdf:inverse-trig/v/inverse-trig-functions-arcsin">https://www.khanacademy.org/math/precalculus/x9e81a4f98389efdf:trig/x9e81a4f98389efdf:inverse-trig/v/inverse-trig-functions-arcsin</a>									

*K. D. Muthu Kumar*

Department	<b>Computational Studies</b>		Programme: <b>BCA COMPUTER APPLICATIONS</b>						
Semester	<b>First</b>		Course Category Code: <b>DSC</b>			*End Semester Exam Type: <b>LE</b>			
Course Code	<b>A23CPL101C</b>		Periods / Week			Credit	Maximum Marks		
			L	T	P	C	I	M	ESE
Course Name	<b>PROGRAMMING IN C LAB</b>		<b>0</b>	<b>0</b>	<b>4</b>	<b>2</b>	<b>50</b>	<b>50</b>	<b>100</b>
(common to B.Sc (CS) & BCA)									
Prerequisite	Basic Knowledge in C programming								
Course Outcome	After completion of the course, the students will be able to								BT Mapping (Highest Level)
	<b>CO1</b>	Apply and practice logical formulations to solve simple problems leading to specific applications.							<b>K3</b>
	<b>CO2</b>	Develop C programs for simple applications making use of basic constructs, arrays and strings							<b>K3</b>
	<b>CO3</b>	Develop C programs involving functions, recursion, pointers, and structures							<b>K3</b>
	<b>CO4</b>	Design applications using sequential and random access file processing							<b>K4</b>
	<b>CO5</b>	Build solutions for online coding challenges							<b>K4</b>
<b>List of Experiment</b>									
<ol style="list-style-type: none"> <li>Simple programming exercises to familiarize the basic C language constructs.</li> <li>Develop programs using identifiers and operators.</li> <li>Develop programs using decision-making and looping constructs.</li> <li>Develop programs using functions as mathematical functions.</li> <li>Develop programs with user defined functions - includes parameter passing.</li> <li>Develop program for one dimensional and two dimensional arrays.</li> <li>Develop program to illustrate pointers.</li> <li>Develop program with arrays and pointers.</li> <li>Develop program for dynamic memory allocation.</li> <li>Develop programs for file operations.</li> </ol>									
<b>Lecture Periods: -</b>			<b>Tutorial Periods: -</b>			<b>Practical Periods: 30</b>		<b>Total Periods: 30</b>	
<b>Text Books</b>									
<ol style="list-style-type: none"> <li>Zed A Shaw, "Learn C the Hard Way: Practical Exercises on the Computational Subjects You Keep Avoiding (Like C)", Addison Wesley, 2016.</li> <li>Anita Goel and Ajay Mittal, "Computer Fundamentals and programming in C", 1<sup>st</sup> Edition, Pearson Education, 2011.</li> <li>Yashwanth Kanethkar, "Let us C", 13<sup>th</sup> Edition, BPB Publications, 2008.</li> <li>Maureen Sprankle, Jim Hubbard, "Problem Solving and Programming Concepts," 9<sup>th</sup> Edition, Pearson, 2011.</li> </ol>									
<b>Reference Books</b>									
<ol style="list-style-type: none"> <li><a href="https://alison.com/course/introduction-to-c-programming">https://alison.com/course/introduction-to-c-programming</a></li> <li><a href="https://www.geeksforgeeks.org/c-programming-language/">https://www.geeksforgeeks.org/c-programming-language/</a></li> <li><a href="http://cad-lab.github.io/cadlab_data/files/1993_prog_in_c.pdf">http://cad-lab.github.io/cadlab_data/files/1993_prog_in_c.pdf</a></li> <li><a href="https://www.tenouk.com/clabworksheet/clabworksheet.html">https://www.tenouk.com/clabworksheet/clabworksheet.html</a></li> <li><a href="https://fresh2refresh.com/c-programming/">https://fresh2refresh.com/c-programming/</a></li> <li><a href="http://www.skiet.org/downloads/cprogrammingquestion.pdf">http://www.skiet.org/downloads/cprogrammingquestion.pdf</a></li> </ol>									



**COs/POs/PSOs Mapping**

COs	Program Outcomes (POs)					Program Specific Outcomes (PSOs)		
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3
1	3	2	3	3	2	2	2	2
2	2	2	2	3	2	3	2	2
3	2	2	2	2	2	3	3	2
4	3	3	2	2	2	2	2	2
5	3	2	2	2	3	3	3	3

Correlation Level: 1 - Low, 2 - Medium, 3 – High

**Evaluation Method**

Assessment	Internal Marks			End Semester Examination (ESE) Marks	Total Marks
	Model Exam	Record	Attendance	50	100
Marks	30	10	10		

\* Application oriented / Problem solving / Design / Analytical in content beyond the syllabus



Department	<b>Computational Studies</b>		Programme: <b>BCA COMPUTER APPLICATIONS</b>						
Semester	<b>First</b>		Course Category Code: <b>DSC</b>			*End Semester Exam Type: <b>LE</b>			
Course Code	<b>A23CPL102C</b>		Periods / Week			Credit	Maximum Marks		
			L	T	P	C	I M	ESE	TM
Course Name	<b>Digital Lab</b>		<b>0</b>	<b>0</b>	<b>4</b>	<b>2</b>	<b>50</b>	<b>50</b>	<b>100</b>
(common to B.Sc (CS) & BCA)									
Prerequisite	Basic Knowledge in Logic gates								
Course Outcome	<i>After completion of the course, the students will be able to</i>								BT Mapping (Highest Level)
	<b>CO1</b>	Acquire knowledge about basic logic gates.							<b>K2</b>
	<b>CO2</b>	Develop the skills in writing assembly programs.							<b>K3</b>
	<b>CO3</b>	Develop the skill for error corrections in the micro level							<b>K3</b>
	<b>CO4</b>	Design Combinational Logic Circuits							<b>K4</b>
	<b>CO5</b>	Design Sequential Logic Circuits							<b>K4</b>
<b>List of Exercises</b>									
<ol style="list-style-type: none"> <li>Study of Integrated Circuits and their working Logics.</li> <li>Verification of Boolean Theorems using Digital Logic Gates.</li> <li>Design and Implementation of Combinational Circuits using Basic Gates Code Converters.</li> <li>Design and Implementation of 4-Bit Binary Adder / Subtractor using Basic Gates and MSI Devices</li> <li>Design and Implementation of Parity Generator / Checker using Basic Gates and MSI Devices.</li> <li>Design and Implementation of Magnitude Comparator.</li> <li>Design and Implementation of Application using Multiplexers /Demultiplexers.</li> <li>Design and Implementation of Shift Registers.</li> <li>Design and Implementation of Synchronous and Asynchronous Counters.</li> <li>Design and Implementation of Johnson and Ring Counters.</li> </ol>									
<b>Lecture Periods: -</b>			<b>Tutorial Periods: -</b>			<b>Practical Periods: 30</b>		<b>Total Periods: 30</b>	
<b>Text Books</b>									
<ol style="list-style-type: none"> <li>Albert Paul Malvino, Donald P Leach, Digital principles and applications, TMH, 2007.</li> <li>Hayes J. P., "Computer Architecture &amp; Organisation", McGraw Hill,</li> <li>Hamacher, "Computer Organisation and System Software", EXCEL BOOKS.</li> <li>Ghosh &amp; Pal, Computer Organization &amp; Architecture (TMH WBUT Series), TMH.</li> </ol>									
<b>Web References</b>									
<ol style="list-style-type: none"> <li><a href="http://www.geeksforgeeks.org/computer-organization-and-architecture">www.geeksforgeeks.org › computer-organization-and-architecture</a></li> <li><a href="http://www.javatpoint.com/computer-organization-and-architecture-tutorial">www.javatpoint.com › computer-organization-and-architecture-tutorial</a></li> <li><a href="http://www.geeksforgeeks.org/digital-electronics-logic-design-tutorials">www.geeksforgeeks.org › digital-electronics-logic-design-tutorials</a></li> </ol>									

\* TE – Theory Exam, LE – Lab Exam



**COs/POs/PSOs Mapping**

COs	Program Outcomes (POs)					Program Specific Outcomes (PSOs)		
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3
1	2	2	3	3	2	2	3	2
2	3	2	2	3	2	2	2	2
3	2	2	2	2	2	3	2	2
4	2	3	2	2	2	2	2	2
5	3	2	2	2	3	2	3	3

Correlation Level: 1 - Low, 2 - Medium, 3 – High

**Evaluation Method**

Assessment	Internal Marks			End Semester Examination (ESE) Marks	Total Marks
	Model Exam	Record	Attendance	50	100
Marks	30	10	10		

\* Application oriented / Problem solving / Design / Analytical in content beyond the syllabus

*R.D. Mohan Kumar*



Department	<b>Computational Studies</b>			Programme: <b>BCA COMPUTER APPLICATIONS</b>						
Semester	<b>I</b>			Course Category Code: <b>SEC</b>		*End Semester Exam Type: <b>TE</b>				
Course Code	<b>A23ENSA02C</b>			Periods / Week			Credit	Maximum Marks		
				L	T	P	C	CAM	ESE	TM
Course Name	<b>Soft Skills</b>			<b>0</b>	<b>0</b>	<b>4</b>	<b>2</b>	<b>100</b>	<b>-</b>	<b>100</b>
	(Common to Science Branches)									
Prerequisite	Basic grammar knowledge									
Course Objectives	<b>The main objectives of the course are,</b>									
	To train students in Soft skills in order to enable them to be professionally competent									
	To facilitate the students for Goal setting and Goal Achieving skills									
	To enrich the sense of social responsibility and accountability of the students									
	To help the students to train them for Stress Management and Time Management									
Course Outcome	<b>On completion of the course, the students will be able to</b>								BT Mapping (Highest Level)	
	<b>CO1</b>	enhance the Soft skills and compete professionally							<b>K3</b>	
	<b>CO2</b>	achieve Goal setting and Goal Achieving skills							<b>K3</b>	
	<b>CO3</b>	improve their social responsibility and accountability skills							<b>K6</b>	
	<b>CO4</b>	enrich Stress Management and Time Management							<b>K6</b>	
	<b>CO5</b>	Demonstrate the quality of a Team ship and Creative thinking							<b>K2</b>	
<b>UNIT-I</b>	<b>POSITIVE ATTITUDE</b>						<b>Periods: 06</b>			
Skills-Personal Skills: Knowing Oneself/Self-Discovery-Confidence Building- Defining Strengths of Attitude -formation of attitudes - psychological factors - the power of positive attitude -the benefits of positive attitude – developing positive attitude - negative attitude – the causes of negative attitude -the consequences of negative attitude -how to change negative attitude									<b>CO1</b>	
<b>UNIT-II</b>	<b>GOAL SETTING</b>						<b>Periods: 06</b>			
Introduction - importance of goal setting - goal definition – types of goals -what exactly goal setting why people don't set goals -how to choose the right goals - SMART GOALS -Career goals -benefits of career goal setting -goal setting tips									<b>CO2</b>	
<b>UNIT-III</b>	<b>STRESS AND TIME MANAGEMENT</b>						<b>Periods: 06</b>			
Definition of Stress management - types of stress - causes of stress - stress management and reduction techniques									<b>CO3</b>	
Definition of Time management - Setting goals, planning – prioritizing - setting deadlines - multi-tasking - practicing self-discipline - overcoming procrastination										
<b>UNIT-IV</b>	<b>TEAMWORK SKILLS</b>						<b>Periods: 06</b>			
Communication as Social Construction - Dynamics of professional Group communication - Group and Team - Team Building Process - Managing conflict and appreciating/respecting differences - Decision making & effective negotiation - Types of teams - Understanding, Identity and nurturing sensitivity (in terms of gender, orientation, language)									<b>CO4</b>	
<b>UNIT-V</b>	<b>PROBLEM SOLVING THROUGH CREATIVE THINKING</b>						<b>Periods: 06</b>			
Thinking Creatively-Improving Perceptions -Creative thinking as an essential skill - Techniques of creative thinking (such as brainstorming, lateral thinking, mind mapping, rich pictures, role play) - Practical problem solving through creative thinking - Case Study									<b>CO5</b>	
<b>Lecture Periods: -</b>			<b>Tutorial Periods: -</b>			<b>Practical Periods: 30</b>		<b>Total Periods:30</b>		





**Text Books** ((Minimum 2 and maximum 3 – Latest editions to be given)

1. Sabina Pillai, Agna Fernandez, *Soft Skills and Employability Skills*, Cambridge University Press, 2017.
2. Jeff Butterfield, *Soft Skills for Everyone*, Cengage India Private Limited, 2<sup>nd</sup> Edition, 2020.
3. Alex K, *Soft Skills*, S Chand & Company, 1<sup>st</sup> Edition, 2014

**Reference Books** (Minimum 5– Latest editions to be given)

1. Barun Mitra, *Personality Development and Soft Skills 2*, Oxford University Press, 2016
2. Prashant Sharma, *Soft Skills 3rd Edition: Personality Development for Life Success*, BPB Publications, 2021.
3. Ghosh, B.N, *Managing Soft Skills for Personality Development*, Tata McGraw Education Publication, 1st Edition, 2012.

**Web References** (Minimum 5)

1. <https://www.mindtools.com/a5ykiuq/personal-goal-setting>
2. <https://www.healthlinkbc.ca/health-topics/stress-management-managing-your-time>
3. <https://www.herzing.edu/blog/7-important-teamwork-skills-you-need-school-and-your-career>

\* TE – Theory Exam, LE – Lab Exam

**COs/POs/PSOs Mapping**

COs	Program Outcomes (POs)												Program Specific Outcomes (PSOs)		
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
1	-	-	-	-	-	3	-	-	3	3	2	3	2	2	3
2	-	-	-	-	-	3	-	-	2	3	3	2	3	2	3
3	-	-	-	-	-	2	-	-	3	3	3	3	2	2	3
4	-	-	-	-	-	2	-	-	3	2	3	2	3	2	3
5	-	-	-	-	-	2	-	-	2	2	2	1	2	1	3

Correlation Level: 1 - Low, 2 - Medium, 3 – High

**Evaluation Method**

Assessment	Continuous Assessment Marks (CAM)					End Semester Examination (ESE) Marks	Total Marks
	CAT 1	CAT 2	Model Exam	Assignment*	Attendance		
Marks	80		-	10	10	-	100

*R.D. Mohan Kumar*

Department	<b>Computational Studies</b>		Programme: <b>BCA COMPUTER APPLICATIONS</b>						
Semester	<b>I</b>		Course Category Code: <b>AEC</b>			*End Semester Exam Type: <b>TE</b>			
Course Code	<b>A23AETA01C</b>		Periods / Week			Credit	Maximum Marks		
			L	T	P	C	CAM	ESE	TM
Course Name	<b>Public Administration</b>		<b>2</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>100</b>	<b>-</b>	<b>100</b>
(Common to all science Branches)									
Prerequisite	Basic Knowledge in Public administration								
Course Objectives	<b>The main objectives of the course are,</b>								
	To introduce the elements of public administration								
	To help the students obtain a suitable conceptual perspective of public administration								
	To introduce them the growth of institution devices to meet the need of changing times								
	To instill and emphasize the need of ethical seriousness in contemporary Indian Public Administration								
Course Outcome	<b>On completion of the course, the students will be able to</b>								BT Mapping
									(Highest Level)
	<b>CO1</b>	Understand the concepts and evolution of Public Administration.							<b>K2</b>
	<b>CO2</b>	Be aware of what is happening in the Public Administration in the country.							<b>K1</b>
	<b>CO3</b>	Explain the Territory Administration in the State and the Centre.							<b>K2</b>
	<b>CO4</b>	Appreciate emerging issues in Indian Public Administration.							<b>K6</b>
<b>CO5</b>									
<b>UNIT-I</b>	<b>INTRODUCTION TO PUBLIC ADMINISTRATION</b>					<b>Periods: 07</b>			
Meaning, nature and Scope of Public Administration and its relationship with other disciplines- Evolution of Public Administration as a discipline — Woodrow Wilson, Henry Fayol , Max Weber and others - Evolution of Public Administration in India – Arthashastra – Colonial Administration upto 1947									<b>CO1</b>
<b>UNIT-II</b>	<b>PUBLIC ADMINISTRATION IN INDIA</b>					<b>Periods: 08</b>			
Enactment of Indian Constitution - Union Government – The Cabinet – Central Secretariat — All India Services – Training of Civil Servants – UPSC – NitiAyog – Statutory Bodies: The Central Vigilance Commission – CBI - National Human Rights Commission – National Women’s Commission –CAG									<b>CO2</b>
<b>UNIT-III</b>	<b>STATE AND UNION TERRITORY ADMINISTRATION</b>					<b>Periods: 08</b>			
Differential Administrative systems in Union Territories compared to States Organization of Secretariat: - Position of Chief Secretary, Functions and Structure of Departments, Directorates – Ministry of Home Affairs supervision of Union Territory Administration – Position of Lt.Governor in UT – Government of Union Territories Act 1963 – Changing trend in UT Administration in Puducherry and Andaman and Nicobar Island.									<b>CO3</b>
<b>UNIT-IV</b>	<b>EMERGING ISSUES IN INDIAN PUBLIC ADMINISTRATION</b>					<b>Periods: 07</b>			
Changing Role of District Collector – Civil Servants – Politicians relationship – Citizens Charter - Public Grievance Redressal mechanisms — The RTI Act 2005 – Social Auditing and Decentralization – Public Private partnership.									<b>CO4</b>
<b>Lecture Periods: 30</b>		<b>Tutorial Periods: -</b>			<b>Practical Periods: -</b>			<b>Total Periods:30</b>	
<b>Text Books</b>									



1. Avasthi and Maheswari, "Public Administration", Lakshmi Narain Agarwal, 1<sup>st</sup> Edition, 2016.
2. Ramesh K.Arora, "Indian Public Administration: Institutions and Issues", New Age International Publishers, 3<sup>rd</sup> Edition, 2012.
3. Rumki Basu, "Public Administration: Concept and Theories", Sterling, 1<sup>st</sup> Edition, 2013.

#### Reference Books

1. Siuli Sarkar, "Public Administration in India", Prentice Hall of India, 2<sup>nd</sup> Edition, 2018.
2. M. Laxmikanth, "Public Administration", McGraw Hill Education, 1<sup>st</sup> Edition, 2011.
3. R.B.Jain, "Public Administration in India, 21<sup>st</sup> Century Challenges for Good Governance", Deep and Deep Publications, 2002.

#### Web References

1. <http://cic.gov.in/>
2. <http://www.mha.nic.in/>
3. <http://rti.gov.in/>
4. <http://www.cvc.nic.in/>

\* TE – Theory Exam, LE – Lab Exam

#### Evaluation Method

Assessment	Continuous Assessment Marks (CAM)				End Semester Examination (ESE) Marks	Total Marks
	CAT 1	CAT 2	Model Exam	Report		
Marks	70		-	20	10	100

*R.D. Maheshwari*