DON BOSCO ARTS & SCIENCE COLLEGE

ANGADIKADAVU

(Affiliated to Kannur University Approved by Government of Kerala)

ANGADIKADAVU P.O., IRITTY, KANNUR – 670706

COURSE PLAN

BCA

(2018 – 21)

SEMESTER - III

ACADEMIC YEAR - (2019-20)

III Semester BCA (2018 - 21)			
SL. No.	**Name of Subjects with Code**	**Name of the Teacher**	**Duty Hours per week**
1.	3A12BCA Data Structure	Sindhu PM	4
2.	4B11BCA Lab–III Data Structures	Sindhu PM	3
3.	3A13BCA Database Management System	Hebin Layola	4
4.	4B11BCA Lab–III DBMS	Hebin Layola	2
5.	3B06BCA Computer Organization	Vineetha Mathew	4
6.	3B07BCA Introduction to Microprocessors	Sruthi N	4
7.	3C 03 MAT Mathematics for BCA III	Prija V	4
8.			
	Class Incharge	**Vineetha Mathew**	

TIME TABLE

Day	09.50 Am - 10.45 Am	10.45 Am -11.40 Am	11.55 Am -12.50 Pm	01.40 Pm - 02.35 Pm	02.35 Pm - 03.30 Pm
1	3B06BCA Computer Organization	3A12BCA Data Structure	3C 03 MAT Mathematics for BCA III	3B07BCA Introduction to Microprocessors	3A13BCA Database Management System
2	3A13BCA Database Management System	3B07BCA Introduction to Microprocessors	3B06BCA Computer Organization	3A12BCA Data Structure	4B11BCA Lab–III Data Structures
3	3A12BCA Data Structure	3B06BCA Computer Organization	3A13BCA Database Management System	3C 03 MAT Mathematics for BCA III	4B11BCA Lab–III DBMS
4	3B07BCA Introduction to Microprocessors	3C 03 MAT Mathematics for BCA III	3B06BCA Computer Organization	4B11BCA Lab–III Data Structures	4B11BCA Lab–III DBMS
5	3A12BCA Data Structure	3C 03 MAT Mathematics for BCA III	3B07BCA Introduction to Microprocessors	3A13BCA Database Management System	4B11BCA Lab–III Data Structures

Subject Code:	**3A12BCA**
Subject Name:	**Data Structure**
No. of Credits:	**4**
No. of Contact Hours:	**72**
Hours per Week:	**4**
Name of Faculty:	**Sindhu P.M.**

Objective:-

1. To familiarize students with concept of data structures and its relevance in computer science.
2. To introduce the concept of analysis of algorithms and ability ro compare algorithms based on time and space complexity.
3. To familiarize with selected linear and nonlinear data structures.
4. To enhance skill in programming.

Module –I

Data structures: Definition and Classification. Analysis of Algorithms :AprioriAnalysis; Asymptotic notation; Time complexity using O notation; Average, Best and Worstcomplexities. Arrays :- Operations; Number of elements; Array representation inmemory.Polynomial- Representation with arrays; Polynomial addition.Sparse Polynomial:-representation.Sparse matrix: Efficient representation with arrays; Addition of sparsematrices. Recursive algorithms: examples – factorial and Tower of Hanoi problem.

Module – II

Search : Linear and Binary search; Time complexity; comparison.Sort : Insertion,bubble, selection, quick and merge sort; Comparison of Sort algorithms.

Module – III

Stack: Operations on stack; array representation. Application of stack- i. Postfixexpression evaluation. ii. Conversion of infix to postfix expression. Queues: Operation onqueue. Array Implementation; Limitations; Circular queue; Dequeue, and priority queue.Application of queue: Job scheduling.

Module – IV

Linked list – Comparison with arrays; representation of linked list in memory. Singly linked list- structure and implementation; Operations – traversing/printing; Add new node;Delete node; Reverse a list; Search and merge two singly linked lists.Stack with singlylinked list.Circular linked list – advantage. Queue as Circular linked list. Head nodes inLinked list – Singly linked list with head node – Add / delete nodes; Traversal / print.Doublylinked list – structure; Operations – Add/delete nodes ; Print/traverse. Advantages.

Module – V

Tree and Binary tree: Basic terminologies and properties; Linked representation ofBinary tree; Complete and full binary trees; Binary tree representation with array. Treetraversal : Recursive inorder, preorder and postorder traversals. Binary search tree -Definition and operations (Create a BST, Search, Time complexity of search). Applicationof binary tree: Huffman algorithm.

Text Book :

1. Data Structures and Algorithms: Concepts, Techniques and Applications; GAV Pai, McGraw Hill, 2008

Reference Books :

1. Data Structures in C, Achuthsankar and Mahalekshmi, PHI, 2008
2. Fundamentals of Data structures in C++ , 2nd Edn, Horowitz Sahni, Anderson, Universities Press
3. Classic Data structures, Samanta, Second Edition, PHI

TEACHING SCHEDULE

No of Weeks	Dates	Session	Topic
1	06-06-2019 To 07-06-2019	1	Data structures: Definition and Classification.
		2	Analysis of Algorithms : Apriori Analysis.
		3	Asymptotic notation; Time complexity using O notation; Average, Best and Worst complexities.
2	10-06-2019 To 14-06-2019	4	Arrays: - Operations; Number of elements; Array representation in memory.
		5	Polynomial- Representation with arrays; Polynomial addition.
		6	Sparse Polynomial:-representation.
		7	Sparse matrix: Efficient representation with arrays;
3	17-06-2019 To 21-06-2019	8	Addition of sparse matrices.
		9	Recursive algorithms: examples – factorial and Tower of Hanoi problem.
		10	**Class test module 1**
		11	Search: Linear and Binary search.
4	24-06-2019 To 28-06-2019	12	Time complexity; comparison. Sort : Insertion.
		13	Bubble, selection.
		14	Quick sort
		15	Merge sort
5	01-07-2019 To 05-07-2019	16	Comparison of Sort algorithms.
		17	**Class test module 1I**
		18	Stack: Operations on stack.
		19	Array representation..
6	08-07-2019 To 12-07-2019	20	Application of stack
		21	Postfix expression evaluation.
		22	Conversion of infix to postfix expression.
		23	Queues: Operation on queue.
		24	Array Implementation; Limitations
		25	Circular queue
7	15-07-2019 To 19-07-2019	26	Dequeue
		27	Priority queue.
		28	Application of queue:
		29	Job scheduling
		30	**Class test module III**

No of Weeks	Dates	Session	Topic
		31	Revision
8	22-07-2019 To 26-07-2019	**23 July**	**First Internal Exam**
			First Internal Exam
			First Internal Exam
			First Internal Exam
			First Internal Exam
			First Internal Exam
9	29-07-2019 To 02-08-2019	32	Linked list – Comparison with arrays.
		33	Representation of linked list in memory.
		34	Singly linked list- structure and implementation.
		31 July	**KarkadakaVavu**
		35	Operations – traversing/printing; Add new node;Delete node;
		36	Reverse a list; Search and merge two singly linked lists.
		37	Stack with singly linked list.
10	05-08-2019 To 09-08-2019	38	Circular linked list – advantage.
		39	Queue as Circular linked list.
		40	Head nodes in Linked list.
		41	Singly linked list with head node – Add .
		42	Delete nodes.
		43	Traversal / print.
11	12-08-2019 To 16-08-2019	44	Doubly linked list – structure.
		45	Operations – Add.
		15 Aug	**Independence day**
		46	Delete nodes.
		47	Print/traverse.
12	19-08-2019 To 23-08-2019	48	Advantages
		49	**Class test module IV**
		50	Tree
		51	Binary tree: Basic terminologies and properties.
		23 Aug	**SreekrishnaJayanthi**
13	26-08-2019 To 30-08-2019	52	Linked representation of Binary tree;
		53	Complete and full binary trees;
		28 Aug	**AyyankaliJayanthi**
		54	Binary tree representation with array.
		55	Tree traversal : Recursive in order
	02-09-2019	56	Pre order
		57	Post order traversals.

No of Weeks	Dates	Session	Topic
14	To 06-09-2019	58	Binary search tree -Definition and operations
		59	(Create a BST, Search, Time complexity of search).
		60	Application of binary tree.
			Onam Celebration
15	09-09-2019 To 13-09-2019		**Muharram**
			First Onam
			Thiruvonam
			Third Onam
			Fourth Onam - SreeNarayana Guru Jayanthi
16	16-09-2019 To 20-09-2019	61	Huffman algorithm.
		62	**Class test module V**
		63	Revision module1
		64	Revision module II
		65	Revision module III
17	23-09-2019 To 27-09-2019	66	Revision module IV
		67	Revision module V
		68	Question paper discussion
		69	Question paper discussion
		70	Question paper discussion
18	30-09-2019 To 04-10-2019	71	Question paper discussion
		72	Question paper discussion
		2 Oct	**Gandhi Jayanthi**
		03 Oct	**Second Internal**
			Second Internal
			Second Internal
19	07-10-2019 To 11-10-2019	07 Oct	**Mahanavami**
		08 Oct	**Vijayadashami**
			Second Internal
			Second Internal
			Study Leave
			Study Leave
20	14-10-2019 To 18-10-2019		**Study Leave**
			Study Leave
			Study Leave
			Study Leave
			Study Leave
			Study Leave

No of Weeks	Dates	Session	Topic
21	21-10-2019 To 25-10-2019	21 Oct	University Exam Begin

Subject Code:	**4B11BCA Lab–III**
Subject Name:	**Data Structures**
No. of Credits:	**3**
No. of Contact Hours:	**54**
Hours per Week:	**3**
Name of Faculty:	**Sindhu P.M.**

Data Structure Programs

A list of twenty programs is given below. Each student has to complete and record aminimum of 15 exercises. A detailed problem statement shall be prepared by the facultyconcerned.

1. Recursion -Tower of Hanoi problem.
2. Delete and insert elements from an array.
3. Add two polynomials.
4. Add two sparse matrices.
5. Sequential and binary search : Print number of comparison in each case for given datasets.
6. Insertion sort.
7. Bubble and selection sort : Print number of comparisons and exchanges in each case for given data sets.
8. Quick sort.
9. Merge sort.
10. Conversion of infix expression to postfix.
11. Evaluation of postfix.
12. Menu driven program : to add / delete elements to a circular queue. Include necessary error messages.
13. Singly linked list operations : add a new node at the beginning, at the end, after ith node, delete from beginning, end, print the list.
14. Singly linked list operations: Search list, merge two list and count number of nodes.
15. Circular linked list : add a new node at the beginning, at the end, after ith node, delete from beginning, end, print the list.
16. Doubly linked list : add a new node at the beginning, at the end, after ith node, delete from beginning, end, print the list.
17. Use a linked stack to reverse a string.
18. Implement tree traversal.
19. Create a binary search tree out of given data and traverse it inorder.
20. Merge two sorted linked list.

TEACHING SCHEDULE

No of Weeks	Dates	Session	Topic
1	06-06-2019 To 07-06-2019	1	Recursion -Tower of Hanoi problem.
		2	Recursion -Tower of Hanoi problem.
2	10-06-2019 To 14-06-2019	3	Delete and insert elements from an array.
		4	Delete and insert elements from an array.
		5	Add two polynomials.
3	17-06-2019 To 21-06-2019	6	Add two polynomials.
		7	Add two sparse matrices.
		8	Add two sparse matrices.
4	24-06-2019 To 28-06-2019	9	Sequential and binary search : Print number of comparison in each case for given datasets
		10	Sequential and binary search : Print number of comparison in each case for given datasets
		11	Insertion sort.
5	01-07-2019 To 05-07-2019	12	Insertion sort.
		13	Bubble and selection sort : Print number of comparisons and exchanges in each case for given data sets.
		14	Bubble and selection sort : Print number of comparisons and exchanges in each case for given data sets.
6	08-07-2019 To 12-07-2019	15	Quick sort.
		16	Quick sort.
		17	Merge sort.
7	15-07-2019 To 19-07-2019	18	Merge sort.
		19	Conversion of infix expression to postfix.
		20	Conversion of infix expression to postfix.
8	22-07-2019 To 26-07-2019	**23 July**	**First Internal Exam**
			First Internal Exam
			First Internal Exam
			First Internal Exam
			First Internal Exam
			First Internal Exam
9	29-07-2019 To 02-08-2019	21	Evaluation of postfix
		31 July	**KarkadakaVavu**
		22	Evaluation of postfix
		23	Menu driven program: to add / delete elements to a

No of Weeks	Dates	Session	Topic
			circular queue. Include necessary error messages.
10	05-08-2019 To 09-08-2019	24	Menu driven program: to add / delete elements to a circular queue. Include necessary error messages.
		25	Singly linked list operations: add a new node at the beginning, at the end, after ith node, delete from beginning, end, print the list.
		26	Singly linked list operations: add a new node at the beginning, at the end, after ith node, delete from beginning, end, print the list.
		27	Singly linked list operations: Search list, merge two list and count number of nodes.
11	12-08-2019 To 16-08-2019	28	Singly linked list operations: Search list, merge two list and count number of nodes.
		29	Circular linked list : add a new node at the beginning, at the end, after ith node, delete from beginning, end, print the list
		15 Aug	Independence day
		30	Circular linked list : add a new node at the beginning, at the end, after ith node, delete from beginning, end, print the list
		31	Circular linked list : add a new node at the beginning, at the end, after ith node, delete from beginning, end, print the list
12	19-08-2019 To 23-08-2019	32	Doubly linked list : add a new node at the beginning, at the end, after ith node, delete from beginning, end, print the list.
		33	Doubly linked list : add a new node at the beginning, at the end, after ith node, delete from beginning, end, print the list.
		34	Doubly linked list : add a new node at the beginning, at the end, after ith node, delete from beginning, end, print the list.
		35	Use a linked stack to reverse a string.
		23 Aug	SreekrishnaJayanthi
13	26-08-2019 To 30-08-2019	36	Use a linked stack to reverse a string.
		37	Implement tree traversal.
		28 Aug	AyyankaliJayanthi
		38	Implement tree traversal.
		39	Implement tree traversal.

No of Weeks	Dates	Session	Topic
14	02-09-2019 To 06-09-2019	40	Implement tree traversal.
		41	Create a binary search tree out of given data and traverse it in order.
		42	Create a binary search tree out of given data and traverse it in order.
		43	Create a binary search tree out of given data and traverse it in order.
		44	Create a binary search tree out of given data and traverse it in order.
			Onam Celebration
15	09-09-2019 To 13-09-2019		**Muharram**
			First Onam
			Thiruvonam
			Third Onam
			Fourth Onam - SreeNarayana Guru Jayanthi
16	16-09-2019 To 20-09-2019	45	Merge two sorted linked list.
		46	Merge two sorted linked list.
		47	Merge two sorted linked list.
		48	Lab exam program 1-5
17	23-09-2019 To 27-09-2019	49	Lab exam program 1-5
		50	Lab exam program 1-5
		51	Lab exam program 1-5
		52	Model exam
18	30-09-2019 To 04-10-2019	53	Model exam
		54	Model exam
		2 Oct	**Gandhi Jayanthi**
		03 Oct	**Second Internal**
			Second Internal
			Second Internal
19	07-10-2019 To 11-10-2019	07 Oct	**Mahanavami**
		08 Oct	**Vijayadashami**
			Second Internal
			Second Internal
			Study Leave
			Study Leave
20	14-10-2019 To		**Study Leave**
			Study Leave
			Study Leave

No of Weeks	Dates	Session	Topic
	18-10-2019		Study Leave
			Study Leave
			Study Leave
21	21-10-2019 To 25-10-2019	21 Oct	University Exam Begin

Subject Code:	**3A13 BCA**
Subject Name:	**Database Management System**
No. of Credits:	**4**
No. of Contact Hours:	**72**
Hours per Week:	**4**
Name of Faculty:	**Hebin Layola**

Objective: -

1. Introduce the basic concepts in DBMS.
2. Skill in designing database.
3. Familiarization of different DBMS models.
4. Skill in writing queries using MySQL.

Module – I

Introduction – purpose of Database systems. View of Data, data Models, transaction management, database structure, DBA, Data Base Users.

Module – II

E-R model, Basic concepts; design issues; Mapping Constraints; Keys; Primary,Foreign, candidate, E-R diagram; Weak entity set; Extended E-R features.Normal forms –1NF, 2NF, 3NF and BCNF; functional dependency, Normalization.

Module – III

SQL : database languages; DDL; create, alter, Drop, DML, Insert into, Select,update, Delete,. DCL commands, Data types in SQL; Creation of database and user.Casestudy : MySQL.

Module – IV

Developing queries and subqueries; Join operations; Set operations; Integrityconstraints, views, Triggers, functions and Sequences.Case study : MySQL

Module – V

Relational model – Structure of Relational database.Relational Algebra;Fundamental operations; Relational calculus; Tuple and domain calculus.

Text books:

1. Database system concepts; Silberschatz, Korth and Sudarsan, 5th Edn; McGraw Hill.

2. The database book : Principles and Practice Using MySQL; Gehani; UniversityPress.

Reference:

1. Fundamentals of Database systems, E. Navathe, 4th edn, Pearson Education.

TEACHING SCHEDULE

No of Weeks	Dates	Session	Topic
1	06-06-2019 To 07-06-2019	1	Introduction
		2	purpose of Database systems
		3	Class Test
2	10-06-2019 To 14-06-2019	4	data Models
		5	Transaction management
		6	database structure
		7	Class Test
3	17-06-2019 To 21-06-2019	8	Data Base Users
		9	DBA
		10	View of Data
		11	Revision Module 1
4	24-06-2019 To 28-06-2019	12	Class Test Module 1
		13	E-R model
		14	Basic concepts
		15	Class Test
5	01-07-2019 To 05-07-2019	16	Mapping Constraints
		17	Keys
		18	Primary Key
		19	Class Test
6	08-07-2019 To 12-07-2019	20	Candidate Key
		21	E-R diagram
		22	Weak entity set
		23	Extended E-R features
		24	Normal forms
		25	1NF
7	15-07-2019 To 19-07-2019	26	2NF
		27	3NF
		28	BCNF
		29	functional dependency
		30	Normalization
		31	design issues
8	22-07-2019 To 26-07-2019	**23 July**	**First Internal Exam**
			First Internal Exam
			First Internal Exam
			First Internal Exam

No of Weeks	Dates	Session	Topic
			First Internal Exam
			First Internal Exam
9	29-07-2019 To 02-08-2019	32	Foreign Key
		33	Class Test
		34	SQL
		31 July	KarkadakaVavu
		35	database languages
		36	DDL
		37	create
10	05-08-2019 To 09-08-2019	38	alter
		39	DML
		40	Drop
		41	Insert into
		42	Select
		43	update
11	12-08-2019 To 16-08-2019	44	Delete,DCL commands
		45	Data types in SQL
		15 Aug	Independence day
		46	Creation of database and user
		47	Case study : MySQL
12	19-08-2019 To 23-08-2019	48	Revision Module III
		49	Class Test
		50	Developing queries and sub queries
		51	Join operations
		23 Aug	SreekrishnaJayanthi
13	26-08-2019 To 30-08-2019	52	Set operations
		53	Integrity constraints
		28 Aug	AyyankaliJayanthi
		54	views
		55	Triggers
14	02-09-2019 To 06-09-2019	56	functions and Sequences
		57	Case study
		58	MySQL
		59	Revision Module IV
		60	Class Test Module IV
			Onam Celebration
	09-09-2019		Muharram

No of Weeks	Dates	Session	Topic
15	To 13-09-2019		First Onam
			Thiruvonam
			Third Onam
			Fourth Onam - SreeNarayana Guru Jayanthi
16	16-09-2019 To 20-09-2019	61	Relational model
		62	Structure of Relational
		63	Relational Algebra
		64	Fundamental operations
		65	Relational calculus
17	23-09-2019 To 27-09-2019	66	Tuple and domain calculus
		67	Revision Module V
		68	Class Test Module V
		69	Question Paper Discussion and Revision
		70	Question Paper Discussion and Revision
18	30-09-2019 To 04-10-2019	71	Question Paper Discussion and Revision
		72	Question Paper Discussion and Revision
		2 Oct	Gandhi Jayanthi
		03 Oct	**Second Internal**
			Second Internal
			Second Internal
19	07-10-2019 To 11-10-2019	07 Oct	Mahanavami
		08 Oct	Vijayadashami
			Second Internal
			Second Internal
			Study Leave
			Study Leave
20	14-10-2019 To 18-10-2019		Study Leave
			Study Leave
			Study Leave
			Study Leave
			Study Leave
			Study Leave
21	21-10-2019 To 25-10-2019	21 Oct	University Exam Begin

Subject Code:	**4B11BCA Lab–III**
Subject Name:	**Database Management System**
No. of Credits:	**3**
No. of Contact Hours:	**36**
Hours per Week:	**2**
Name of Faculty:	**Hebin Layola**

DBMS

Minimum 10 exercises covering SQL related topics . Sample exercises are given below:

SQL -1

 Create a sequence named ‘star’ to be used with student tables primary keycoloumn-sn0. The sequence should start with 10 & max value 99

 Create table students with fields sno, sname, sex, mark with sno as primary keyand assign suitable constraints for each attribute.

 Insert five records into the table.

1. Alter the table by adding one more field rank.
2. Display all boy students with their name.
3. Find the Average mark
4. Create a query to display the sno and sname for all students who got More than the average mark. Sorts the results in descending order of mark.
5. Display girl student name for those who have marks greater than 40 and less than 20.

SQL -2

 Create a table department with fields ename, salary, dno, dname, place with dno as primary key.

 Insert five records into the table.

1. Rename the field ‘place’ with ‘city’
2. Display the employees who got salary more than Rs.6000 and less than10000 /-
3. Display total salary of the organization
4. Display ename for those who are getting salary in between 5000 and 10000.
5. Create a view named ‘Star’ with field ename, salary & place
6. displayename and salary, salary rounded with 10 digits’*’

SQL -3

 Create a table department with fields dno, dname, dmanager and place with dno as primary key.

 Create a table emp with fields eno, ename, job, dno, salary, with eno as primary key.

Set dno as foreign key.

 Insert five records into each table.

1. Display the ename and salary, salary with ascending order
2. Display ename and salary for eno=20,
3. Display the manager for the accounting Department
4. Display the name,salary and manager of all employees who are getting salary > 5000

5. Write the queries using various group functions.
6. Write the queries using various Number functions.

SQL -4

 Create a sequence to be used with the Emp Table's primary key column. TheSequence should start at 60 and have a maximum value of 200. Have your sequence
increment by 10 numbers.
 Create a table emp with fields eno ,ename, job, manager, salary, with eno as primary
key.
 Insert values into the table.

1. Display ename, salary from emp who are getting salary more than average salary of theorganization.
2. ADD 20% DA as extra salary to all employees. Label the coloumn as 'New Salary'
3. Create a query to display the eno and ename for all employees who earn more than the average salary. Sort the results in descending order of salary.
4. Create a view called emp_view based on the eno, ename from emp table change the heading for the ename to 'EMPLOY'.
5. Write a query that will display the eno and ename for all employees whose name contains a 'T'.
6. Write a script to display the following information about your sequences. Sequence name, maximum value, increment size and last number.

SQL -5

 Create a table department with fields dno, ename,salary, Designation,dname,place withdno as primary key.
 Insert values into the table.

1. Write the queries using various Character functions in ename field.
2. Create a query to display the employee number and name for all employees who earn
more than the average salary. Sort the results in descending order of salary.
3. Display all employees who got salry between 5000 &10000
4. Display ename, salary, Designation for those who got salary more than 5000 or his Designation is 'clerk'.
5. Display Ename and designation those who are not a clerk or manager.
6. Display the names of all employees where the third letter of their name is an 'A'

SQL -6

 Create a table Customer with fields cid, cname, date_of_birth,place
 Create table loan with fields loanno,cid,bname assigning suitable constraints.
 Create table depositor with fieldsaccno, cid, balance, bname assigning suitable constraints.
 Insert 5 Records in to each table.

1. Add one more field amount to loan table. Update each record. Display cname for cid=2.
2. Calculate Rs 150 extra for all customers having loan.The added loan amount will display in a new coloumn.
3. Display loanno, cname and place of a customer who is residing in Kannur city.
4. Display all information from loan table for loanno 2,8,10.
5. Display all customers who have both loan and deposit.

TEACHING SCHEDULE

No of Weeks	Dates	Session	Topic
1	06-06-2019 To 07-06-2019	1	**SQL -1** □ Create a sequence named ‘star’ to be used with student tables primary keycoloumn-sn0. The sequence should start with 10 & max value 99 □ Create table students with fields sno, sname, sex, mark with sno as primary keyand assign suitable constraints for each attribute. □ Insert five records into the table.
		2	1. Alter the table by adding one more field rank. 2. Display all boy students with their name.
2	10-06-2019 To 14-06-2019	3	3 .Find the Average mark 4. Create a query to display the sno and sname for all students who got More than the average mark. Sorts the results in descending order of mark.
		4	5. Display girl student name for those who have marks greater than 40 and less than
3	17-06-2019 To 21-06-2019	5	□ Create a table department with fields ename, salary, dno, dname, place with dno as primary key. □ Insert five records into the table. 1. Rename the field ‘place’ with ‘city’
		6	2. Display the employees who got salary more than Rs.6000 and less than10000 /- 3. Display total salary of the organization
4	24-06-2019 To 28-06-2019	7	4. Display ename for those who are getting salary in between 5000 and 10000. 5. Create a view named ‘Star’ with field ename, salary & place
		8	6. displayename and salary, salary rounded with 10 digits’*’
5	01-07-2019 To	9	□ Create a table department with fields dno, dname, dmanager and place with dno as primary key. □ Create a table emp with fields eno, ename, job, dno,

No of Weeks	Dates	Session	Topic
	05-07-2019		salary, with eno as primary key. Set dno as foreign key. Insert five records into each table.
		10	1. Display the ename and salary, salary with ascending order 2. Display ename and salary for eno=20, 3. Display the manager for the accounting Department 4. Display the name,salary and manager of all employees who are getting salary > 5000 5. Write the queries using various group functions. 6. Write the queries using various Number functions.
6	08-07-2019 To 12-07-2019	11	Create a sequence to be used with the Emp Table's primary key column. TheSequence should start at 60 and have a maximum value of 200. Have your sequence increment by 10 numbers. Create a table emp with fields eno ,ename, job, manager, salary, with eno as primary key. Insert values into the table.
		12	1. Display ename, salary from emp who are getting salary more than average salary of theorganization. 2. ADD 20% DA as extra salary to all employees. Label the coloumn as 'New Salary'
7	15-07-2019 To 19-07-2019	13	3. Create a query to display the eno and ename for all employees who earn more than the average salary. Sort the results in descending order of salary. 4. Create a view called emp_view based on the eno, ename from emp table change the heading for the ename to 'EMPLOY'.
		14	5. Write a query that will display the eno and ename for all employees whose name contains a 'T'. 6. Write a script to display the following information about your sequences. Sequence name, maximum value, increment size and last number.
8	22-07-2019	**23 July**	**First Internal Exam**
			First Internal Exam

No of Weeks	Dates	Session	Topic
	To 26-07-2019		**First Internal Exam**
			First Internal Exam
			First Internal Exam
			First Internal Exam
9	29-07-2019 To 02-08-2019	15	□ Create a table department with fields dno, ename,salary, Designation,dname,place withdno as primary key. □ Insert values into the table. 1. Write the queries using various Character functions in ename field. 2. Create a query to display the employee number and name for all employees who earn more than the average salary. Sort the results in descending order of salary. Designation is 'clerk'.
		31 July	**KarkadakaVavu**
		16	3. Display all employees who got salry between 5000 &10000 4. Display ename, salary, Designation for those who got salary more than 5000 or his
10	05-08-2019 To 09-08-2019	17	5. Display Ename and designation those who are not a clerk or manager. 6. Display the names of all employees where the third letter of their name is an 'A'
		18	□ Create a table Customer with fields cid, cname, date_of_birth,place □ Create table loan with fields loanno,cid,bname assigning suitable constraints. □ Create table depositor with fieldsaccno, cid, balance, bname assigning suitable constraints. □ Insert 5 Records in to each table.
11	12-08-2019 To 16-08-2019	19	Insert 5 Records in to each table. 1. Add one more field amount to loan table. Update each record. Display cname for cid=2.
		15 Aug	**Independence day**
		20	1. Add one more field amount to loan table. Update each record. Display cname for cid=2.

No of Weeks	Dates	Session	Topic
12	19-08-2019 To 23-08-2019	21	2. Calculate Rs 150 extra for all customers having loan.The added loan amount will display in a new coloumn.
		22	3. Display loanno, cname and place of a customer who is residing in Kannur city.
		23	4. Display all information from loan table for loanno 2,8,10.
		23 Aug	SreekrishnaJayanthi
13	26-08-2019 To 30-08-2019	24	5. Display all customers who have both loan and deposit.
		28 Aug	AyyankaliJayanthi
		25	Revision SQL 1
		26	Revision SQL 2
14	02-09-2019 To 06-09-2019	27	Revision SQL 3
		28	Revision SQL 4
		29	Revision SQL 5
			Onam Celebration
15	09-09-2019 To 13-09-2019		Muharram
			First Onam
			Thiruvonam
			Third Onam
			Fourth Onam - SreeNarayana Guru Jayanthi
16	16-09-2019 To 20-09-2019	30	Revision SQL 6
		31	Model Exam SQL 1
		32	Model Exam SQL 2
17	23-09-2019 To 27-09-2019	33	Model Exam SQL 3
		34	Model Exam SQL 4
		35	Model Exam SQL 5
18	30-09-2019 To 04-10-2019	36	Model Exam SQL 6
		2 Oct	Gandhi Jayanthi
		03 Oct	Second Internal
			Second Internal
			Second Internal
19	07-10-2019 To 11-10-2019	07 Oct	Mahanavami
		08 Oct	Vijayadashami
			Second Internal
			Second Internal
			Study Leave

No of Weeks	Dates	Session	Topic
			Study Leave
20	14-10-2019 To 18-10-2019		Study Leave
			Study Leave
			Study Leave
			Study Leave
			Study Leave
			Study Leave
21	21-10-2019 To 25-10-2019	21 Oct	University Exam Begin

Subject Code:	**3B06BCA**
Subject Name:	**Computer Organization**
No. of Credits:	**3**
No. of Contact Hours:	**72**
Hours per Week:	**4**
Name of Faculty:	**Vineetha Mathew**

Objective: -

1. To introduce the basic terminology of computer hardware.
2. To familiarize the functional units of a computer system.
3. To understand the basic operation of a computer system.
4. To understand the memory organization in a computer system

Module -I

Basic structure of computer-Types of computers-Functional Units-Basic operationalConcepts-Bus structure-Multiprocessors and Multi computers-Data representation-FixedPoint representation and floating Point representation.

Module -II

Register Transfer and Micro operations – Register Transfer language-RegisterTransfer-Bus and memory Transfer-Three state bus buffers-Memory Transfer-BasicComputer Organization and Design – Instruction Codes – Fetch & Decode Instructions –Register Reference Instructions – Memory Reference Instruction – Input output & Interrupt.

Module -III

Micro Programmed Control – Control Memory – Address sequencing – CentralProcessing Unit – General Register Organization – Control word – Stack Organization –Register stack - Memory Stack – Reverse Polish notation – Evolution of Arithmeticexpressions – Instruction Formats – Addressing modes – Data Transfer and Manipulations– reduced Instruction set computer(RISC)

Module -IV

Input Output Organization – Peripheral Devices – Input/Output Interfaces – Asynchronous Data Transfer – Modes of transfer –Priority Interrupt – Direct Memory Access (DMA) - Input Output Processor - Serial Communications.

Module -V

Memory Organization – Hierarchy – Main memory – Auxiliary Memory – AssociativeMemory – Cache memory – Mapping – Multiprocessors – Characteristics ofmultiprocessors - Inter connection structures – Inter Processor Arbitration.

Text Books

1. Computer system Architecture –M.Morris Mano - PHI Pvt Limited

2. Computer Organization - Carl Hamacher –International Edition

References

1. Computer Organization and Architecture , William Stallings, 7th Edn, Pearson Education.
2. Computer Architecture & Organization John P Hayes –McGraw Hill

TEACHING SCHEDULE

No of Weeks	Dates	Session	Topic
1	06-06-2019 To 07-06-2019	1	Basic structure of computer
		2	Types of computers
		3	Functional Units
2	10-06-2019 To 14-06-2019	4	Basic operational Concepts
		5	Bus structure
		6	Multiprocessors and Multi computers
		7	Data representation-Fixed Point representation
3	17-06-2019 To 21-06-2019	8	Data representation-Fixed Point representation
		9	Data representation- floating Point representation.
		10	Revision
		11	Revision
4	24-06-2019 To 28-06-2019	12	Question Paper Discussion
		13	Module I
		14	Register Transfer and Micro operations
		15	Register Transfer and Micro operations
5	01-07-2019 To 05-07-2019	16	Register Transfer language
		17	Register Transfer
		18	Bus and memory Transfer
		19	Three state bus buffers
6	08-07-2019 To 12-07-2019	20	Memory Transfer
		21	Revision
		22	Basic Computer Organization and Design
		23	Instruction Codes
		24	Fetch & Decode Instructions
		25	Register Reference Instructions
7	15-07-2019 To 19-07-2019	26	Memory Reference Instruction
		27	Input output & Interrupt
		28	Revision
		29	Revision
		30	Question Paper Discussion
		31	Module II
8	22-07-2019	**23 July**	**First Internal Exam**
			First Internal Exam

No of Weeks	Dates	Session	Topic
	To 26-07-2019		**First Internal Exam**
			First Internal Exam
			First Internal Exam
			First Internal Exam
9	29-07-2019 To 02-08-2019	32	Micro Programmed Control
		33	Control Memory
		34	Address sequencing
		31 July	KarkadakaVavu
		35	Central Processing Unit
		36	General Register Organization
		37	Control word
10	05-08-2019 To 09-08-2019	38	Stack Organization
		39	Register stack
		40	Memory Stack
		41	Reverse Polish notation – Evolution of Arithmetic expressions
		42	Instruction Formats
		43	Addressing modes
11	12-08-2019 To 16-08-2019	44	Data Transfer and Manipulations–
		45	Reduced Instruction set computer(RISC)
		15 Aug	Independence day
		46	Revision & Question Paper Discussion
		47	Module III
12	19-08-2019 To 23-08-2019	48	Input Output Organization
		49	Peripheral Devices – Input/ Output Interfaces
		50	Asynchronous Data Transfer
		51	Modes of transfer
		23 Aug	SreekrishnaJayanthi
13	26-08-2019 To 30-08-2019	52	Priority Interrupt
		53	Direct Memory Access (DMA)
		28 Aug	AyyankaliJayanthi
		54	Input Output Processor
		55	Serial Communications.
14	02-09-2019 To 06-09-2019	56	Revision & Question Paper Discussion
		57	Module IV
		58	Memory Organization
		59	Hierarchy – Main memory
		60	Auxiliary Memory

No of Weeks	Dates	Session	Topic
			Onam Celebration
15	09-09-2019 To 13-09-2019		**Muharram**
			First Onam
			Thiruvonam
			Third Onam
			Fourth Onam - SreeNarayana Guru Jayanthi
16	16-09-2019 To 20-09-2019	61	Associative Memory
		62	Cache memory
		63	Mapping
		64	Multiprocessors
		65	Characteristics of multiprocessors
17	23-09-2019 To 27-09-2019	66	Inter connection structures
		67	Inter Processor Arbitration
		68	Revision & Question Paper Discussion
		69	Module V
		70	Revision & Question Paper Discussion
18	30-09-2019 To 04-10-2019	71	Revision & Question Paper Discussion
		72	Revision & Question Paper Discussion
		2 Oct	**Gandhi Jayanthi**
		03 Oct	**Second Internal**
			Second Internal
			Second Internal
19	07-10-2019 To 11-10-2019	**07 Oct**	**Mahanavami**
		08 Oct	**Vijayadashami**
			Second Internal
			Second Internal
			Study Leave
			Study Leave
20	14-10-2019 To 18-10-2019		**Study Leave**
			Study Leave
			Study Leave
			Study Leave
			Study Leave
			Study Leave
21	21-10-2019 To 25-10-2019	**21 Oct**	**University Exam Begin**

Subject Code:	**3B07BCA**
Subject Name:	**Introduction to Microprocessors**
No. of Credits:	**3**
No. of Contact Hours:	**72**
Hours per Week:	**4**
Name of Faculty:	**Sruthi N.**

Objective: -

1. Familiarize with 8085 architecture.
2. Familiarize with 8086 architecture.
3. Skill in writing assembly language programs.
4. Understand Interrupts and DMA techniques.

Module -I

Introduction: History of Microprocessors, Introduction to 8-bit microprocessor - 8085, Architecture of 8085, Bus organization of 8085, Internal Data Operations and 8085registers.

Module -II

Introduction to 16-bit microprocessor – 8086, Architecture of 8086, Functional Block Diagram, Register Organization of 8086, Signal Description of 8086, Physical MemoryOrganization, Memory Mapped and I/O Mapped Organization, General Bus Operation, I/OAddressing Capability, Minimum and Maximum Mode 8086 System and Timings.

Module -III

Addressing Modes of 8086, Machine Language Instruction Format, AssemblyLanguage Programming of 8086, Instruction Set of 8086-Data transfer instructions,Arithmetic and Logic instructions, Branch instructions, Loop instructions, Processor Controlinstructions, Flag Manipulation instructions, Shift and Rotate instructions, Stringinstructions, Assembler Directives and operators.

Module -IV

Introduction to Stack, STACK Structure of 8086, Interrupts and Interrupt ServiceRoutines, Interrupt Cycle of 8086, Non-Maskable and Maskable Interrupts.

Module -V

Data transfer schemes – Programmed IO, Interrupt driven IO and DMA.Programmable Peripheral Interface 8255, DMA Controller 8257, Programmable InterruptController 8259A

Text Book

Advanced Microprocessors and Peripherals – Architecture, Programming and Interfacingby A.K. Ray and K.M. Bhurchand, Tata McGraw Hill,2002 Edition

Reference Books

1. Microprocessors and Interfacing – Programming and Hardware by Douglas V Hall, 2nd Edition, Tata McGraw Hill, 2002.

TEACHING SCHEDULE

No of Weeks	Dates	Session	Topic
1	06-06-2019 To 07-06-2019	1	History of Microprocessors
		2	Introduction to 8-bit microprocessor - 8085
		3	Architecture of 8085
2	10-06-2019 To 14-06-2019	4	Architecture of 8085
		5	Architecture of 8085
		6	Bus organization of 8085
		7	Internal Data Operations
3	17-06-2019 To 21-06-2019	8	8085registers
		9	8085registers.
		10	Introduction to 16-bit microprocessor – 8086
		11	Class test module 1
4	24-06-2019 To 28-06-2019	12	Architecture of 8086
		13	Architecture of 8086
		14	Architecture of 8086
		15	Functional Block Diagram
5	01-07-2019 To 05-07-2019	16	Register Organization of 8086
		17	Signal Description of 8086
		18	Signal Description of 8086
		19	Signal Description of 8086
6	08-07-2019 To 12-07-2019	20	Physical MemoryOrganization,
		21	Memory Mapped and I/O Mapped Organization
		22	General Bus Operation
		23	I/OAddressing Capability
		24	Minimum and Maximum Mode 8086 System and Timings.
		25	Minimum and Maximum Mode 8086 System and Timings.
7	15-07-2019 To 19-07-2019	26	Minimum and Maximum Mode 8086 System and Timings.
		27	Addressing Modes of 8086
		28	Addressing Modes of 8086
		29	Machine Language Instruction Format
		30	Revision Module 1
		31	Revision module 2
8	22-07-2019	**23 July**	**First Internal Exam**
			First Internal Exam

No of Weeks	Dates	Session	Topic
	To 26-07-2019		**First Internal Exam**
			First Internal Exam
			First Internal Exam
			First Internal Exam
9	29-07-2019 To 02-08-2019	32	AssemblyLanguage Programming of 8086,
		33	Instruction Set of 8086
		34	Data transfer instructions,
		31 July	KarkadakaVavu
		35	Arithmetic and Logic instructions
		36	Branch instructions
		37	Loop instructions
10	05-08-2019 To 09-08-2019	38	Processor Control instructions
		39	Flag Manipulation instructions
		40	Flag Manipulation instructions
		41	Shift and Rotate instructions,
		42	Stringi nstructions
		43	Assembler Directives and operators
11	12-08-2019 To 16-08-2019	44	Assembler Directives and operators
		45	Assembler Directives and operators
		15 Aug	Independence day
		46	Class module 3
		47	Introduction to Stack
12	19-08-2019 To 23-08-2019	48	STACK Structure of 8086
		49	Interrupts and Interrupt ServiceRoutines
		50	Interrupt Cycle of 8086
		51	Non-Maskable and Maskable Interrupts
		23 Aug	SreekrishnaJayanthi
13	26-08-2019 To 30-08-2019	52	**Revision module 1**
		53	Revision module 2,3
		28 Aug	AyyankaliJayanthi
		54	Class test module 4
		55	Data transfer schemes
14	02-09-2019 To 06-09-2019	56	Data transfer schemes
		57	Programmed IO
		58	Interrupt driven IO
		59	DMA
		60	Programmable Peripheral Interface 8255
			Onam Celebration

No of Weeks	Dates	Session	Topic
15	09-09-2019 To 13-09-2019		Muharram
			First Onam
			Thiruvonam
			Third Onam
			Fourth Onam - SreeNarayana Guru Jayanthi
16	16-09-2019 To 20-09-2019	61	Programmable Peripheral Interface 8255
		62	DMA Controller 8257
		63	DMA Controller 8257
		64	Programmable InterruptController 8259A
		65	Programmable InterruptController 8259A
17	23-09-2019 To 27-09-2019	66	Programmable InterruptController 8259A
		67	Revision module 1 and 2
		68	Revision module 3 and 4
		69	Revision module 5
		70	Class test module 3
18	30-09-2019 To 04-10-2019	71	Class test module 4
		72	Class test module 5
		2 Oct	Gandhi Jayanthi
		03 Oct	Second Internal
			Second Internal
			Second Internal
19	07-10-2019 To 11-10-2019	07 Oct	Mahanavami
		08 Oct	Vijayadashami
			Second Internal
			Second Internal
			Study Leave
			Study Leave
20	14-10-2019 To 18-10-2019		Study Leave
			Study Leave
			Study Leave
			Study Leave
			Study Leave
			Study Leave
21	21-10-2019 To 25-10-2019	21 Oct	University Exam Begin

Subject Code:	**3C 03 MAT**
Subject Name:	**Mathematics for BCA III**
No. of Credits:	**4**
No. of Contact Hours:	**72**
Hours per Week:	**4**
Name of Faculty:	**Prija V.**

Module I :

First Order Ordinary Differential Equations (20 hrs)

Basic concepts, Modeling, and ideas, Geometrical meaning of $y' = f(x, y)$. Direction Fields, Separable ODEs, Modeling, Exact ODEs, Integrating Factors, Linear ODEs, Bernoulli Equation, Population Dynamics, Orthogonal Trajectories, Existence and Uniqueness of Solution (proof of theorem omitted). (Chapter 1 Sections 1.1 to 1.7).

Module II:

Second Order Ordinary Differential Equations (20 hrs)

Homogeneous Linear ODEs of second order, Homogeneous Linear ODEs with constant coefficients, Differential Operators, Euler-Cauchy Equation, Existence and Uniqueness of Solutions – Wronskian (statement of Theorems only, proofs omitted), Nonhomogeneous ODEs, Solution by variation of Parameters. (Chapter 2 Sections 2.1 to 2.10 *Excluding* 2.4, 2.8 and 2.9)

Module III:

Laplace Transforms (20 hrs)

Laplace Transform, Inverse Transform, Linearity, *s*-Shifting, Transforms of Derivatives and Integrals, ODEs, Unit step Function, *t*- Shifting, Short Impulses, Dirac's Delta Function, Partial Fractions, Convolution, Integral Equations, Differentiation and integration of Transforms, Systems of ODEs, Laplace Transform, General Formulas, Table of Laplace Transforms. [Chapter 6 Sections 6.1 to 6.9 (Proofs omitted)]

Module IV:

Fourier Series and Partial Differential Equations (30 hrs)

Fourier Series : Fourier series, Functions of any period $p = 2L$, Even and Odd functions, Half-range Expansions. [Chapter 11 Sections 11.1 to 11.3 (Proofs omitted)]

Partial Differential Equations: Basic Concepts, Modeling, Vibrating String, Wave Equation, Solution by Separating Variables, Use of Fourier Series, D-Alembert's solution of the wave equation, Heat Equation, Solution by Fourier Series. [Chapter 12 sections 12.1 to 12.5 (*Excluding* steady two dimensional heat problems and Laplace equation of 12.5)]

Text :

E. Kreyszig, Advanced Engineering Mathematics, 9th Edition, John Wiley & Sons, Inc.

References:

1. S.S. Sastry, Engineering Mathematics, Volume II, 4th Edition, PHI.
2. M. R. Spiegel, Advanced Calculus, Schaum's Outline Series.
3. M. R. Spiegel, Laplace Transforms, Schaum's Outline Series.

TEACHING SCHEDULE

No of Weeks	Dates	Session	Topic
1	06-06-2019 To 07-06-2019	1	First Order Ordinary Differential Equations
		2	Basic concepts ,Problems
		3	Modeling, and ideas
2	10-06-2019 To 14-06-2019	4	Exercise problems,: Text: Advanced Engineering Mathematics
		5	Geometrical meaning of $y' = f(x, y)$.
		6	Exercise problems: Text: Advanced Engineering Mathematics
		7	Class Test
3	17-06-2019 To 21-06-2019	8	Separable ODEs
		9	Integrating Factors.
		10	Fields
		11	Assignment ,Example Problems
4	24-06-2019 To 28-06-2019	12	Exercise problems,: Text: Advanced Engineering Mathematics.
		13	Linear ODEs
		14	Exact ODEs
		15	Bernoulli Equation
5	01-07-2019 To 05-07-2019	16	Existence and Uniqueness of Solution
		17	Population Dynamics
		18	Exercise problems,: Text: Advanced Engineering Mathematics
		19	Orthogonal Trajectories
6	08-07-2019 To 12-07-2019	20	Exercise problems,: Text: Advanced Engineering Mathematics.
		21	Class Test
		22	Basic Concepts
		23	Homogeneous Linear ODEs of second order.
		24	Homogeneous Linear ODEs with constant coefficients.
		25	Exercise problems,: Text: Advanced Engineering Mathematics
7	15-07-2019 To 19-07-2019	26	Assignment, Problems.
		27	Existence and Uniqueness of Solutions – Wronskian (statement of Theorems only, proofs omitted)
		28	Non homogeneous ODEs ,Problems.

No of Weeks	Dates	Session	Topic
		29	Exercise problems,: Text: Advanced Engineering Mathematics
		30	Solution by variation of Parameters
		31	Revision, Class test.
8	22-07-2019 To 26-07-2019	**23 July**	**First Internal Exam**
			First Internal Exam
			First Internal Exam
			First Internal Exam
			First Internal Exam
			First Internal Exam
9	29-07-2019 To 02-08-2019	32	Laplace Transform, Basic concepts.
		33	Linearity of Laplace transforms.
		34	Inverse Laplace Transform & Linearity.
		31 July	**KarkadakaVavu**
		35	Table of Laplace Transforms.
		36	General Formulas.
		37	Class Test.
10	05-08-2019 To 09-08-2019	38	Method of partial fraction.
		39	Exercise problems,: Text: Advanced Engineering Mathematics.Transforms of Integrals.
		40	First Shifting Theorem.
		41	Exercise problems,: Text: Advanced Engineering Mathematics.Unit step Function.
		42	Transforms of Derivatives.
		43	Exercise problems,: Text: Advanced Engineering Mathematics.
11	12-08-2019 To 16-08-2019	44	Class test.
		45	Differentiation and integration of Transforms, Integral Equations
		15 Aug	**Independence day**
		46	Solution of IVP using Laplace transforms**.**
		47	Exercise problems,: Text: Advanced Engineering Mathematics
12	19-08-2019 To 23-08-2019	48	Shifting, Short Impulses
		49	Exercise problems,: Text: Advanced Engineering Mathematics
		50	Systems of ODEs, Laplace Transform
		51	Exercise problems,: Text: Advanced Engineering Mathematics
		23 Aug	**SreekrishnaJayanthi**

No of Weeks	Dates	Session	Topic
13	26-08-2019 To 30-08-2019	52	Convolution.
		53	Exercise problems,: Text: Advanced Engineering Mathematics
		28 Aug	AyyankaliJayanthi
		54	Revision.
		55	Class test.
14	02-09-2019 To 06-09-2019	56	Fourier Series
		57	Functions of any period $p = 2L$.
		58	Exercise problems,: Text: Advanced Engineering Mathematics
		59	Exercise problems,: Text: Advanced Engineering Mathematics
		60	Class test.
			Assignment.
15	09-09-2019 To 13-09-2019		Muharram
			First Onam
			Thiruvonam
			Third Onam
			Fourth Onam - SreeNarayana Guru Jayanthi
16	16-09-2019 To 20-09-2019	61	Even and Odd functions.
		62	Exercise problems,: Text: Advanced Engineering Mathematics
		63	Homework,Assignment.
		64	Half-range Expansions.
		65	Partial Differential Equations.
17	23-09-2019 To 27-09-2019	66	Use of Fourier Series, D-Alembert's solution of the wave equation, Heat Equation, Solution by Fourier Series.
		67	Exercise problems,: Text: Advanced Engineering Mathematics
		68	Exercise problems,: Text: Advanced Engineering Mathematics
		69	Exercise problems,: Text: Advanced Engineering Mathematics
		70	Revision.
18	30-09-2019 To 04-10-2019	71	Revision.
		72	Revision.
		2 Oct	Gandhi Jayanthi
		03 Oct	Second Internal

No of Weeks	Dates	Session	Topic
			Second Internal
			Second Internal
19	07-10-2019 To 11-10-2019	07 Oct	Mahanavami
		08 Oct	Vijayadashami
			Second Internal
			Second Internal
			Study Leave
			Study Leave
20	14-10-2019 To 18-10-2019		Study Leave
			Study Leave
			Study Leave
			Study Leave
			Study Leave
			Study Leave
21	21-10-2019 To 25-10-2019	21 Oct	University Exam Begin