DON BOSCO ARTS & SCIENCE COLLEGE
ANGADIKADAVU

(Affiliated to Kannur University Approved by Government of Kerala)

ANGADIKADAVU P.O., IRITTY, KANNUR – 670706

COURSE PLAN

BCA

(2021 - 24)

SEMESTER – II

ACADEMIC YEAR 2021 – 22

II Semester BCA (2021 - 24)			
Sl. No.	Name of Subjects with Code	Name of the Teacher	Duty Hours Per Week
1.	2A03 ENG : Readings on Life And Nature	Jesna Kuriakose	5
2.	2A04 ENG : Readings on Gender	Twinkle Thomas	4
3.	2A08-2MAL: Gadya Maatrukakal	Linet Maria K	5
4.	2A08-2HIN: Sahitya Aur Preyog	Jainy N George	5
5.	2B02BCA:Digital Systems	Desny Antony	3
6.	2B03BCA:Object Oriented Programming Using C++	Fincy Cyriac	2
7.	2B05BCA: LAB II: Programming in C++	Fincy Cyriac	2
8.	2C02 MAT-BCA: Mathematics for BCA-II	Ramya Raj	4
	Name of Class In-charge	Fincy Cyriac	

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	2B03BCA:Object Oriented Programming Using C++	2A04 ENG : Readings on Gender	2C02 MAT-BCA: Mathematics for BCA-II	2A03 ENG : Readings on Life And Nature	Second Language
2	2A03 ENG : Readings on Life And Nature	2B05BCA: LAB II: Programming in C++	2B02BCA:Digital Systems	Second Language	2C02 MAT-BCA: Mathematics for BCA-II
3	Second Language	2C02 MAT-BCA: Mathematics for BCA-II	2A03 ENG : Readings on Life And Nature	2B03BCA:Object Oriented Programming Using C++	2A04 ENG : Readings on Gender
4	2A04 ENG : Readings on Gender	Second Language	2C02 MAT-BCA: Mathematics for BCA-II	2A03 ENG : Readings on Life And Nature	2B02BCA:Digital Systems
5	2B02BCA:Digital Systems	2B05BCA: LAB II: Programming in C++	2A03 ENG : Readings on Life And Nature	Second Language	2A04 ENG : Readings on Gender

Subject Code:	2A03 ENG
Subject Name:	READINGS ON LIFE AND NATURE
No. of Credits:	4
No. of Contact Hours:	90
Hours per Week:	5
Name of the Teacher:	Jesna Kuriakose

SYLLABUS

Course Outcomes

1. Understand the basic themes and issues related to ecology through articles, poems, stories, life writings and historical narratives.

2. Assume ecologically friendly attitudes in events related to everyday life.

3. Identify the specific ecological problems related to Kerala.

4. Identify the major ecological movements around the world and within the country.

5. Ability to express specific opinions when confronted with ecology/development binary.

6. Identify the major or minor ecological issues happening around the student's native place.

Contents

Module – I (2 hours/week)

1. Environmental Studies: Definition, Scope and Importance

2. Concept of an Ecosystem

3. The Fish – Elizabeth Bishop

4. Trophic Cascade – Camille T. Dungy

5. The Rightful Inheritors of the Earth – Vaikom Muhammad Basheer

Module – II (2 hours/week)

1. Biodiversity

2. Disaster Management: Floods, Earthquakes, Cyclones, Landslides

3. Real Estate - Sebastian

4. The Truth about the Floods – Nissim Ezekiel

5. Matsyagandhi – Sajitha Madathil

Module – III (1 hour/week)

1. Role of an Individual in Prevention of Pollution

2. Environmental Values

3. The End of Living - The Beginning of Survival – Chief of Seattle

4. Going Local – Helena Norberg-Hodge

TEACHING SCHEDULE

No of Weeks	Dates	Session	Topic
1	07-02-2022 To 12-02-2022	1	Environmental studies
		2	Definition/ Introduction
		3	Scope of Environmental studies
		4	Importance of Environmental studies
		5	Importance of environmental studies
		12-02-2022	Second Saturday
2	14-02-2022 To 19-02-2022	6	Class Test
		7	Importance of Environmental studies
		8	Importance of Environmental studies
			College Arts Fest
			College Arts Fest
		9	The Fish – Elizabeth Bishop
3	21-02-2022 To 26-02-2022	10	The Fish – Elizabeth Bishop
		11	The Fish – Elizabeth Bishop
		12	The Fish – Elizabeth Bishop
		13	The Fish – Elizabeth Bishop
		14	Trophic Cascade – Camille T Dungy
		15	Trophic Cascade – Camille T Dungy
4	28-02-2022 To 05-03-2022	16	Trophic Cascade – Camille T Dungy
		01-03-2022	Shivarathri
		17	Trophic Cascade – Camille T Dungy
		18	Class Test
		19	The Rightful Inheritors of the Earth – Basheer
		20	The Rightful Inheritors of the Earth – Basheer
5	07-03-2022 To 12-03-2022	21	The Rightful Inheritors of the Earth – Basheer
		22	The Rightful Inheritors of the Earth – Basheer
		23	Biodiversity
		24	Biodiversity
		25	Biodiversity
		12-03-2022	Second Saturday
6	14-03-2022 To 19-03-2022	26	Biodiversity
		27	Disaster Management
		28	Flood
		29	Earthquake
		30	Earthquake
		31	Cyclone
7	21-03-2022 To	32	Cyclone
		33	Landslides
		34	Landslides

	26-03-2022	35	Real Estate
		36	Real Estate
		37	Real Estate
8	28-03-2022 To 02-04-2022	38	Class Test
		39	The Truth about the Floods
		40	The Truth about the Floods
		41	The Truth about the Floods
		42	The Truth about the Floods
		43	Matsyagandhi
9	04-04-2022 To 09-04-2022	44	Matsyagandhi
		45	Matsyagandhi
		46	Role of the individual in prevention of pollution
		47	Role of the individual in prevention of pollution
		48	Role of the individual in prevention of pollution
		49	Role of the individual in prevention of pollution
10	11-04-2022 To 16-04-2022	50	Class Test
		51	Class Test
		13-04-2022	Easter Holidays
		14-04-2022	Easter Holidays
		15-04-2022	Easter Holidays
		16-04-2022	Easter Holidays
11	18-04-2022 To 23-04-2022	18-04-2022	Easter Holidays
		52	I Internal Examination
		53	I Internal Examination
		54	I Internal Examination
		55	I Internal Examination
		56	I Internal Examination
12	25-04-2022 To 30-04-2022	57	Environmental values
		58	Environmental values
		59	Environmental values
		60	Environmental values
		61	Environmental values
		62	The End of Living - The Beginning of survival
		63	The End of Living - The Beginning of survival
13	02-05-2022 To 07-05-2022	02-05-2022	RAMZAN
		64	The End of Living - The Beginning of survival
		65	The End of Living - The Beginning of survival
		66	The End of Living - The Beginning of survival
		67	The End of Living - The Beginning of survival
		68	The End of Living - The Beginning of survival
14	09-05-2022 To	69	The End of Living - The Beginning of survival
		70	The End of Living - The Beginning of survival
		71	Concept of environmental an Ecosystem

	14-05-2022	72	Concept of environmental an Ecosystem
		73	Concept of environmental an Ecosystem
		14-05-2022	Second Saturday
15	16-05-2022 To 21-05-2022	74	Concept of environmental an Ecosystem
		75	Concept of environmental an Ecosystem
		76	Concept of environmental an Ecosystem
		77	Concept of environmental an Ecosystem
		78	Going Local
		79	Going Local
16	23-05-2022 To 28-05-2022	80	II Internal Examination
		81	II Internal Examination
		82	II Internal Examination
		83	II Internal Examination
		84	II Internal Examination
		85	II Internal Examination
17	30-05-2022 To 04-06-2022	86	Going Local
		87	Going Local
		88	Going Local
		89	Going Local
		90	Class Test
			Class Test

Subject Code:	**2A04 ENG**
Subject Name:	**Readings on Gender**
No. of Credits:	**3**
No. of Contact Hours:	**72**
Hours per Week:	**4**
Name of the Teacher:	**Twinkle Thomas**

SYLLABUS

MODULE I

1. An Introduction Kamala Das
2. Kitchen Rags Vijila Chirappad
3. Dhakshayani Velayudhan: A Life Sketch"- Meera Velayudhan
4. Learning to be a Mother Shashi Deshpande
5. Is this Desirable Lalithambika Antharjanam

MODULE II

1. Still I Rise Maya Angelou
2. I Am Not that Woman Kishwar Naheed
3. Structural Violence and the Trans Struggle for Dignity Gee Imaan Semmalar
4. Gender Justice and Media Ammu Joseph
5. Clothing Matters: Visiting the Melmundu Samaram in Keralam K M Sheeba

TEACHING SCHEDULE

No of Weeks	Dates	Session	Topic
1	07-02-2022 To 12-02-2022	1	Introduction to Gender
		2	Introduction to Gender Equality
		3	Poem "An Introduction " - Kamala Das
		4	Poem " An Introduction " - Kamala Das
		12-02-2022	Second Saturday
2	14-02-2022 To 19-02-2022	5	Poem "Kitchen Rags "
		6	Poem "Kitchen Rags "
		7	Analysis and discussion of the poem "Kitchen Rags "
			College Arts Fest
			College Arts Fest
3	21-02-2022 To 26-02-2022	8	"Gender Justice and Media" - Ammu Joseph
		9	"Gender Justice and Media" - Ammu Joseph
		10	Gender Justice and Media" - Ammu Joseph
		11	Group discussion on "Gender Justice and Media"
4	28-02-2022	12	Class Test

	To 05-03-2022	01-03-2022	Shivarathri
		13	"Dhakshayani Velayudhan: A Life Sketch"- Meera Velayudhan
		14	"Dhakshayani Velayudhan :A Life Sketch"- Meera Velayudhan
		15	Class Presentation
5	07-03-2022 To 12-03-2022	16	Class Test
		17	"Learning to be a Mother "- Shashi Deshpande
		18	"Learning to be a Mother "- Shashi Deshpande
		19	Discussion on "Learning to be a Mother "
		12-03-2022	Second Saturday
6	14-03-2022 To 19-03-2022	20	"Is this Desirable " - Lalithambika Antharjanam
		21	"Is this Desirable "- Lalithambika Antharjanam
		22	"Is this Desirable"- Lalithambika Antharjanam
		23	Class Presentation
7	21-03-2022 To 26-03-2022	24	Class presentation
		25	Class Test
		26	"Still I Rise" - Maya Angelou
		27	"Still I Rise"- Maya Angelou
8	28-03-2022 To 02-04-2022	28	"Still I Rise"- Maya Angelou
		29	Discussion on "Still I Rise"
		30	Group Discussion
		31	Class Presentation
9	04-04-2022 To 09-04-2022	32	"I'm not that Woman"- Kishwar Naheed
		33	"I'm not that Woman "- Kishwar Naheed
		34	"I'm not that Woman"- Kishwar Naheed
		35	Group Discussion on "I'm not that Woman"
		36	"Structural Violence and the Trans Struggle for Dignity" - Gee Imaan Semmalar
10	11-04-2022 To 16-04-2022	37	"Structural Violence and the Trans Struggle for Dignity"- Gee Imaan Semmalar
		38	Group Discussion
		13-04-2022	Easter Holidays
		14-04-2022	Easter Holidays
		15-04-2022	Easter Holidays
		16-04-2022	Easter Holidays
11	18-04-2022 To 23-04-2022	18-04-2022	Easter Holidays
		39	I Internal Examination
		40	I Internal Examination
		41	I Internal Examination
		42	I Internal Examination
		43	I Internal Examination
12	25-04-2022	44	"Clothing Matters: Visiting the Melmundusamaram in Keralam" - K M Sheeba

	To 30-04-2022	45	"Clothing Matters:Visiting the Melmundusamram in Keralam" - KM Sheeba
		46	"Clothing Matters: Visiting the Melmundusamaram in Keralam " - K M Sheeba
		47	Class Presentation
		48	Class Presentation
13	02-05-2022 To 07-05-2022	02-05-2022	RAMZAN
		49	"Clothing Matters: Visiting the Melmundusamaram in Keralam " - K M Sheeba
		50	Class Presentation
		51	Class Presentation
14	09-05-2022 To 14-05-2022	52	Class Test
		53	Revision - Module I
		54	Revision - Module II
		55	Revision
		56	Class Test
		14-05-2022	Second Saturday
15	16-05-2022 To 21-05-2022	57	Class Presentation
		58	Class Presentation
		59	Group Discussion
		60	Revision
		61	Revision
		62	Revision
16	23-05-2022 To 28-05-2022	63	II Internal Examination
		64	II Internal Examination
		65	II Internal Examination
		66	II Internal Examination
		67	II Internal Examination
		68	II Internal Examination
17	30-05-2022 To 04-06-2022	69	Revision
		70	Revision
		71	Revision
		72	Revision

Subject Code:	**2A08-2MAL**
Subject Name:	□□□□□□□□□□□
No. of Credits:	**4**
No. of Contact Hours:	**90**
Hours per Week:	**5**
Name of the Teacher:	**Linet Maria K**

SYLLABUS

TEACHING SCHEDULE

No of Weeks	Dates	Session	Topic
1	07-02-2022 To 12-02-2022	1	□□□□□□□□□□□□□□□ □□□ □□□□□□□□□□□□□□□□□
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2	14-02-2022 To 19-02-2022	6	□□□□□□ □□□□□
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		8	□□□□□□ □□□□□
			College Arts Fest
			College Arts Fest
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3	21-02-2022 To	10	□□□□□□ -□□
		11	□□□□□□-□□

	26-02-2022	12	□□□□□□□-□□
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		15	□□□□□□□-□□
4	28-02-2022 To 05-03-2022	16	□□□□□□□
		01-03-2022	Shivarathri
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5	07-03-2022 To 12-03-2022	21	□□□□□□□□□□□□□□□□□□□□□□□□□
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		12-03-2022	Second Saturday
6	14-03-2022 To 19-03-2022	26	□□ □□□□. □□□□ -□□□□□□□□□□
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		31	□□□□□□□□-□□
7	21-03-2022 To 26-03-2022	32	□□□□□□□□-□□
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8	28-03-2022 To 02-04-2022	38	□□□ -□□
		39	□□□-□□
		40	□□□-□□
		41	□□□-□□
		42	□□□-□□
		43	□□□-□□
9	04-04-2022 To 09-04-2022	44	□□□-□□
		45	□□□-□□
		46	□□□-□□
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		49	□□□□□
10	11-04-2022 To 16-04-2022	50	□□□-□□
		51	□□□□□□
		13-04-2022	Easter Holidays
		14-04-2022	Easter Holidays
		15-04-2022	Easter Holidays
		16-04-2022	Easter Holidays
11	18-04-2022 To 23-04-2022	18-04-2022	Easter Holidays
		52	I Internal Examination
		53	I Internal Examination
		54	I Internal Examination
		55	I Internal Examination
		56	I Internal Examination
12	25-04-2022 To 30-04-2022	57	□□□□□□□□ -□□□□□□
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13	02-05-2022 To 07-05-2022	02-05-2022	RAMZAN
		64	[illegible]
		65	[illegible]
		66	[illegible]
		67	[illegible]
		68	[illegible]
14	09-05-2022 To 14-05-2022	69	[illegible]
		70	[illegible]
		71	[illegible]
		72	[illegible]
		73	[illegible]
		14-05-2022	Second Saturday
15	16-05-2022 To 21-05-2022	74	[illegible]
		75	[illegible]
		76	[illegible]
		77	[illegible]
		78	[illegible]
		79	[illegible]
16	23-05-2022 To	80	II Internal Examination
		81	II Internal Examination
		82	II Internal Examination

	28-05-2022	83	II Internal Examination
		84	II Internal Examination
		85	II Internal Examination
17	30-05-2022 To 04-06-2022	86	□□...□□....□□....□□.....□□□□□□□-□□□□□□□□□□□
		87	□□...□□....□□....□□.....□□□□□□□-□□□□□□□□□□□
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		90	□□□□□□
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Subject Code:	**2A08-2HIN**
Subject Name:	**SAHITYA AUR PREYOG**
No. of Credits:	**4**
No. of Contact Hours:	**90**
Hours per Week:	**5**
Name of the Teacher:	**JAINY N GEORGE**

SYLLABUS

Unit 1:

कहानी

1. प्रेमचंद - परीक्षा
2. फणीश्वरनाथ रेनु- पंचलाइट
3. मन्नू भंडारी - यही सच है
4. मैत्रेई पुष्पा - बिछड़े हुए

Unit 2:

पत्र लेखन का महत्व- वाणिज्यिक या व्यावसायिक पत्र लेखन - उसकी विशेषताएं - व्यावसायिक पत्र का स्वरूप - व्यावसायिक पत्र के प्रकार - पूछताछ संबंधी - व्यापारिक प्रस्ताव,माल मंगाने के आदेश संबंधित - संदर्भ पत्र - शिकायती - या भुगतान संबंधी - बैंक और बीमा संबंधी - आवेदन पत्र - परिपत्र।

Unit3

अनुवाद- इसकी आवश्यकता और महत्व - साहित्यिक अनुवाद - समाचार पत्रों के लेख का अनुवाद - वैज्ञानिक लेख तथा सामाजिक शास्त्र से संबंधित लेखों का अनुवाद - किसी परिच्छेद का हिंदी से अंग्रेजी तथा अंग्रेजी से हिंदी में अनुवाद।

Unit4

व्याकरण - संज्ञा - सर्वनाम - लिंग - वचन - पुरुष - विशेषण - क्रिया - काल - कारक - मुहावरे एवं कहावतें।

TEACHING SCHEDULE

No of Weeks	Dates	Session	Topic
1	07-02-2022 To 12-02-2022	1	परीक्षा कहानी
		2	परीक्षा
		3	परीक्षा
		4	परीक्षा
		5	परीक्षा
		12-02-2022	Second Saturday
2	14-02-2022 To 19-02-2022	6	पंचलैट
		7	पंचललैट
		8	पंच लाइट
			College Arts Fest
			College Arts Fest
		9	पंच लाइट
3	21-02-2022 To 26-02-2022	10	पंच लाइट
		11	पंचलाइट
		12	पंच लाइट
		13	पंच लाइट
		14	यही सच है
		15	यही सच है
4	28-02-2022 To 05-03-2022	16	यही सच है
		01-03-2022	Shivarathri
		17	यही सच है
		18	यही सच है
		19	यही सच है
		20	यहीसच है
5	07-03-2022 To 12-03-2022	21	यही सच है
		22	यही सच है
		23	यही सच है
		24	यही सच है
		25	यही सच है
		12-03-2022	Second Saturday
6	14-03-2022 To 19-03-2022	26	बिछड़े हुए
		27	बिछड़े हुए
		28	बिछड़े हुए
		29	बिछड़े हुए
		30	बिछड़े हुए
		31	कक्षा परीक्षा
7	21-03-2022 To	32	पत्रलेखन
		33	पात्रलेखन
		34	पत्रलेखन

	26-03-2022	35	पत्रलेखन
		36	आवेदन पत्र
		37	आवेदन पत्र
8	28-03-2022 To 02-04-2022	38	आवेदन पत्र
		39	आवेदन पत्र
		40	आवेदन पत्र
		41	शिकायती पत्र
		42	शिकायती पत्र
		43	शिकायती पत्र
9	04-04-2022 To 09-04-2022	44	शिकायती पत्र
		45	शिकायती पत्र
		46	शिकायती पत्र
		47	निजीपत्र
		48	निजी पत्र
		49	निजी पत्र
10	11-04-2022 To 16-04-2022	50	निजी पत्र
		51	कक्षा परीक्षा
		13-04-2022	Easter Holidays
		14-04-2022	Easter Holidays
		15-04-2022	Easter Holidays
		16-04-2022	Easter Holidays
11	18-04-2022 To 23-04-2022	18-04-2022	Easter Holidays
		52	I Internal Examination
		53	I Internal Examination
		54	I Internal Examination
		55	I Internal Examination
		56	I Internal Examination
12	25-04-2022 To 30-04-2022	57	अनुवाद
		58	अनुवाद
		59	अनुवाद
		60	अनुवाद
		61	अनुवाद
		62	अनुवाद
		63	अनुवाद
13	02-05-2022 To 07-05-2022	02-05-2022	RAMZAN
		64	अनुवाद
		65	अनुवाद
		66	अनुवाद
		67	अनुवाद
		68	अनुवाद
14	09-05-2022 To	69	अनुवाद
		70	अनुवाद
		71	अनुवाद

	14-05-2022	72	अनुवाद
		73	अनुवाद
		14-05-2022	Second Saturday
15	16-05-2022 To 21-05-2022	74	अनुवाद
		75	अनुवाद
		76	कक्षा परीक्षा
		77	व्याकरण
		78	व्याकरण
		79	व्याकरण
16	23-05-2022 To 28-05-2022	80	II Internal Examination
		81	II Internal Examination
		82	II Internal Examination
		83	II Internal Examination
		84	II Internal Examination
		85	II Internal Examination
17	30-05-2022 To 04-06-2022	86	व्याकरण। मुहावरा
		87	व्याकरण। मुहावरा
		88	व्याकरण
		89	मुहावरा
		90	कक्षा परीक्षा

Subject Code:	**2B02BCA**
Subject Name:	**DIGITAL SYSTEMS**
No. of Credits:	**3**
No. of Contact Hours:	**54**
Hours per Week:	**3**
Name of the Teacher:	**Desny Antony**

SYLLABUS

Course Outcome

1. Introduce the basic and important concepts of Digital Principles and applications
2. Familiarize with basic building blocks of Digital systems, Digital Logic and Digital Circuits
3. Design simple combinational digital systems.
4. Familiarize different number systems, codes and data representation in digital systems

Unit I:

Introductory Digital Concepts: Digital and Analog Quantities – Binary Digits, Logic Levels and Digital Waveforms - Basic Logic - Digital IC. Number Systems: Decimal, Binary, Hexa-decimal and Octal – Conversions -CODES: BCD, ASCII, Excess-3, GRAY and UNICODE. BINARY ARITHMETIC: Addition, Subtraction. Data Representation (textbook 2): Data types - Complements (1's and 2's)– Fixed Point representation – Floating Point representation. **(10 Hrs)**

Unit II:

Logic Gates: Inverter-AND-OR-NAND-NOR-XOR-XNOR-positive and Negative logic- Examples of IC gates. Boolean Algebra and Logic simplification: Boolean operations and Expressions – Laws and Rules of Boolean Algebra – DeMorgan's Theorem – Boolean analysis of Logic Circuits – Simplification, Standard forms and Truth tables of Boolean Expressions – K-Map , SOP, POS Minimization. **(12 Hrs)**

Unit III:

Combinational Logic Circuits: Basic Combinational Logic Circuits – Implementing Combinational Logic – Universal Property of NAND and NOR gates. Functions of Combinational Logic: Basic overview – Basic Adders-Parallel Binary Adders Comparators-Decoders-Encoders-Code Converters – Multiplexers – Demultiplexers- Parity generators/checkers. **(12 Hrs)**

Unit IV:

Flip Flops: Latches – Edge triggered Flip flops – Master Slave Flip flops-operating characteristics. Counters: Asynchronous counters - Synchronous counters – UP/Down synchronous counters – Design of Synchronous counters **(10Hrs)**

Unit V:

Shift Registers: Basic Shift Registers Functions - Serial in/Serial Out Shift Registers -Parallel In/Parallel out Shift Registers Bidirectional Shift Registers – Shift Register Counters. Memory: Basics of Semiconductor memories – RAM – ROM – PROM –EPROM – Flash Memories **(10 Hrs)**

Books for Study:

1. Thomas L. Floyd, Digital Fundamentals, 11th Ed, Pearson
2. M. Morris Mano, Computer System Architecture, 3rd Ed, Pearson

Books for Reference:

1. Donald P. Leach, Albert Paul Malvino and GautamSaha, Digital Principles and Applications, 8th Ed, TMH

TEACHING SCHEDULE

No of Weeks	Dates	Session	Topic
1	07-02-2022 To 12-02-2022	1	Introductory Digital Concepts- Digital and Analog Quantities
		2	Binary Digits, Logic Levels and Digital Waveforms
		3	Basic Logic , Digital IC
		4	Number Systems- Decimal, Binary, Hexa-decimal and Octal, Conversions
		12-02-2022	Second Saturday
2	14-02-2022 To 19-02-2022	5	CODES- BCD, ASCII, Excess-3, GRAY and UNICODE.
		6	BINARY ARITHMETIC-Addition, Subtraction.
		7	Data Representation
			College Arts Fest
			College Arts Fest
		8	Data types , Complements (1's and 2's
3	21-02-2022 To 26-02-2022	9	Fixed Point representation – Floating Point representation.
		10	Module 1 class test
		11	Logic Gates- Inverter, AND, OR, NAND, NOR, XOR, XNOR
		12	Positive and Negative logic
4	28-02-2022 To 05-03-2022	13	Examples of IC gates
		01-03-2022	Shivarathri
		14	Boolean Algebra and Logic simplification
		15	Boolean operations and Expressions
		16	Laws and Rules of Boolean Algebra
		17	DeMorgan's Theorem
5	07-03-2022 To 12-03-2022	18	Boolean analysis of Logic Circuits , Simplification,
		19	Standard forms and Truth tables of Boolean Expressions
		20	K-Map
		12-03-2022	Second Saturday
6	14-03-2022 To 19-03-2022	21	SOP, POS Minimization
		22	Module 2 class test
		23	Combinational Logic Circuits- Basic Combinational Logic Circuits
		24	Implementing Combinational Logic
7	21-03-2022 To 26-03-2022	25	Universal Property of NAND and NOR gates.
		26	Functions of Combinational Logic- Basic overview
		27	Basic Adders
8	28-03-2022 To	28	Parallel Binary Adders Comparators
		29	Decoders, Encoders
		30	Code Converters

	02-04-2022	31	Multiplexers
9	04-04-2022 To 09-04-2022	32	Demultiplexers
		33	Parity generators/checkers
		34	Module 3 class test
		35	Flip Flops,
10	11-04-2022 To 16-04-2022	36	Latches
		37	Edge triggered Flip flops
		13-04-2022	Easter Holidays
		14-04-2022	Easter Holidays
		15-04-2022	Easter Holidays
		16-04-2022	Easter Holidays
11	18-04-2022 To 23-04-2022	18-04-2022	Easter Holidays
			I Internal Examination
			I Internal Examination
			I Internal Examination
			I Internal Examination
			I Internal Examination
12	25-04-2022 To 30-04-2022	38	Master Slave Flip flops
		39	Master Slave Flip flops -operating characteristics.
		40	Counters: Asynchronous counters
13	02-05-2022 To 07-05-2022	02-05-2022	RAMZAN
		41	Synchronous counters
		42	UP/Down synchronous counters
14	09-05-2022 To 14-05-2022	43	Design of Synchronous counters
		44	Module 4 class test
		45	Shift Registers
		14-05-2022	Second Saturday
15	16-05-2022 To 21-05-2022	46	Basic Shift Registers Functions
		47	Serial in/Serial Out Shift Registers
		48	Parallel In/Parallel out Shift Registers
16	23-05-2022 To 28-05-2022		II Internal Examination
			II Internal Examination
			II Internal Examination
			II Internal Examination
			II Internal Examination
			II Internal Examination
17	30-05-2022 To 04-06-2022	49	Bidirectional Shift Registers
		50	Shift Register Counters
		51	Memory
		52	Basics of Semiconductor memories
		53	RAM , ROM , PROM ,EPROM , Flash Memories
		54	Module 4 class test

Subject Code:	**2B03BCA**
Subject Name:	**OBJECT ORIENTED PROGRAMMING USING C++**
No. of Credits:	**2**
No. of Contact Hours:	**36**
Hours per Week:	**2**
Name of the Teacher:	**FINCY CYRIAC**

SYLLABUS

COURSE OUTCOME

1. Understanding OOPsconcepts such as inheritance and polymorphism and their implementation usingC++.
2. Ability to develop programs in C++

Unit I: Principles of object-oriented programming; OOP paradigm; Basic concepts of OOP; Benefits; applications. Introduction to C++, Structure of C++ program; Tokens, Keywords, identifiers and constants; Data types, symbolic constants; type compatibility; declaration and dynamic initialization of variables; reference variables. Operators, manipulators; type cast operators; Expressions, implicit conversions; operator overloading; operator precedence; Control structures. (9Hrs)

Unit II: Functions; function overloading; friend and virtual functions; Math library functions. Structures; Specifying a class; Defining member functions; making an outside function inline; nesting of member functions; private member functions; arrays within a class; memory allocation for objects; static data members; static member functions; arrays of objects; objects as function arguments; friendly functions; returning objects; const member functions; pointer to members; Localclasses. (7 Hrs)

Unit III: Constructors and destructors; dynamic initialization of objects; copy constructor; Dynamic constructors; const objects; Destructors. Operator overloading – definition; overloading unary operators; overloading binary operators; overloading binary operators using friends; manipulation of strings using operators; rules for overloading operators. Type conversions. (7 Hrs)

Unit IV: Inheritance – defining derived classes; making a private member inheritance; Types of inheritance; virtual base classes; abstract classes; constructors in derived classes; Nesting of classes. Pointers; Pointers to objects; Pointers to derived classes; virtual functions; pure virtualfunctions. (6 Hrs)

Unit V: C++ streams; stream classes; unformatted I/O operations; Formatted console I/O operations; Managing output with manipulators. Files – classes for file stream operations; Opening and closing a file; file modes; file pointers and their manipulations; Sequential input and output operation. (7 Hrs)

Books for Study:

1. E. Balagurusamy, Object Oriented Programming with C++, 7th Ed, TMH

Books for **Reference:**

1. K R. Venugopal and Raj Kumar Buyya, Mastering C++, 2ndEd, TMH.
2. Ashok N. Kamthane, Object-Oriented Programming with ANSI and Turbo C++, Pearson
3. M. T. Somashekara, Programming in C++, 2009, PHI

4. YeshavantKanetkar , Let us C++, 2nd Ed, BPB Marks including choice : Unit Marks

TEACHING SCHEDULE

No of Weeks	Dates	Session	Topic
1	07-02-2022 To 12-02-2022	1	Principles of object-oriented programming- OOP paradigm, Basic concepts of OOP
		2	Benefits, applications, Introduction to C++, Structure of C++ program
		3	Tokens, Keywords, identifiers and constants, Data types, symbolic constants
		12-02-2022	Second Saturday
2	14-02-2022 To 19-02-2022	4	type compatibility, declaration and dynamic initialization of variables, reference variables.
			College Arts Fest
			College Arts Fest
		5	Operators, manipulators, type cast operators
3	21-02-2022 To 26-02-2022	6	Expressions, implicit conversions
		7	operator overloading, operator precedence
		8	Control structures
4	28-02-2022 To 05-03-2022	9	Module I class test
		01-03-2022	Shivarathri
		10	Functions- function overloading, friend and virtual functions, Math library functions.
		11	Structures- Specifying a class, Defining member functions, making an outside function inline
5	07-03-2022 To 12-03-2022	12	Nesting of member functions, private member functions, arrays within a class
		13	Memory allocation for objects, static data members, static member functions
		14	Arrays of objects, objects as function arguments, friendly functions
		12-03-2022	Second Saturday
6	14-03-2022 To 19-03-2022	15	Returning objects, const member functions, pointer to members, Local classes.
		16	Module II class test
		17	Constructors and destructors- dynamic initialization of objects
7	21-03-2022 To 26-03-2022	18	Copy constructor, Dynamic constructors, const objects, Destructors.
		19	Operator overloading – definition, overloading unary operators, overloading binary operators
		20	overloading binary operators using friends, manipulation of strings using operators
8	28-03-2022	21	Rules for overloading operators
		22	Type conversions

	To 02-04-2022	23	Module III class test
9	04-04-2022 To 09-04-2022	24	Inheritance – defining derived classes, making a private member inheritance
		25	Types of inheritance-virtual base classes, abstract classes
		26	Constructors in derived classes, Nesting of classes.
10	11-04-2022 To 16-04-2022	27	Pointers- Pointers to objects, Pointers to derived classes;
		28	Virtual functions, Pure virtual functions
		13-04-2022	Easter Holidays
		14-04-2022	Easter Holidays
		15-04-2022	Easter Holidays
		16-04-2022	Easter Holidays
11	18-04-2022 To 23-04-2022	18-04-2022	Easter Holidays
		29	I Internal Examination
		30	I Internal Examination
		31	I Internal Examination
		32	I Internal Examination
		33	I Internal Examination
12	25-04-2022 To 30-04-2022	34	Module IV class test
		35	C++ streams- stream classes, unformatted I/O operations
13	02-05-2022 To 07-05-2022	02-05-2022	RAMZAN
		36	Formatted console I/O operations
		37	Managing output with manipulators.
14	09-05-2022 To 14-05-2022	38	Files – classes for file stream operations
		14-05-2022	Second Saturday
15	16-05-2022 To 21-05-2022	39	Opening and closing a file, file modes
		40	File pointers and their manipulations
16	23-05-2022 To 28-05-2022	41	II Internal Examination
		42	II Internal Examination
		43	II Internal Examination
		44	II Internal Examination
		45	II Internal Examination
		46	II Internal Examination
17	30-05-2022 To 04-06-2022	47	Sequential input and output operation
		48	Module V class test

Subject Code:	2B05BCA LAB II
Subject Name:	PROGRAMMING IN C+
No. of Credits:	**1**
No. of Contact Hours:	**36**
Hours per Week:	**2**
Name of the Teacher:	**FINCY CYRIAC**

SYLLABUS

l. Program to add one day to a given date.
2. Program to find the trace and transpose of a matrix.
3. Create a class time comprises hr, min and sec.as member data and add() and display() as member functions. Use constructor to initialise the object. Write a main function to add two time objects, store it in another time object and display the resultant time (constructors)
4. Program to fmd biggest, smallest, sum and difference of two numbers using inline function.
5. Program to find the area and volume of respective figures using firnction overloading.
6. Program to add the elements of an array to the corresponding elements of another array
7. Program to negate the elements of an array. Use operator overloading function with the operator -. (operator overloading - unary)
8. Program to compare two strings. Use operator overloading (:). Do not use any built in firnctions. (operator overloading - binary)
9. Program for Addition / Subtraction / Multiplication of complex numbers using classes. (operator overloading)
10. Define a class student with name, reg.no, date of birth and name of college as member data and functions to get and display these details. Design another class Test with subjects of study and grade for each subject as member data and corresponding input and output flrnctions. Derive a class Result from both Student and Test classes and Print the Result of each student with relevant information. (inheritance)
11. Start with an array of pointers to strings representing the days of the week. Provide firnctions to sort the strings into alphabetical order. Use pointers (array of pointers)
12. Design two classes A and B with member data a and b respectively. Set values for the data member. Write a program to increment the interchange the values of both A and B. Use friend function. (friend functions)
13. Design a class employee with relevant details. Read the details of n employees from the keyboard and write it into a File named 'EmpDataFile'. Also read the details back from the same file and display. Use separate functions to write and read into and out ofthe file. (can use object pointers)
14. Define a class to represent a bank account. Include the following members :

Data Members:

1 . Name of the depositor.
2. Account number.
3. Type ofaccount.
4. Balance amount in the account.

Member Functions

5. To assign initial values.
6. To deposit an amount.
7. To withdraw an amount after chggking the balance.
8. To display name and balance.

Use appropriate main program. (application level calsspgrn)

15. Create a base class called shape. Use this class to store two double type values that could be used to compute the area of figures. Derive two specific classes called TRIANGLE and RECTANGLE from the base

SHAPE. Add to the base lass, a member firnction get_data0 to initialize base class data members and another member firnction display_area ()to compute and display the area of figures. Make display_area() as a virtual function and redefine this function in the derived class to suite the requirements (virtual functions)

TEACHING SCHEDULE

No of Weeks	Dates	Session	Topic
1	07-02-2022 To 12-02-2022	1	Program to add one day to a given date.
		2	Program to find the trace and transpose of a matrix.
		3	Create a class time comprises hr, min and sec.as member data and add() and display() as member functions. Use constructor to initialise the object. Write a main function to add two time objects, store it in another time object and display the resultant time (constructors)
		12-02-2022	Second Saturday
2	14-02-2022 To 19-02-2022	4	Create a class time comprises hr, min and sec.as member data and add() and display() as member functions. Use constructor to initialise the object. Write a main function to add two time objects, store it in another time object and display the resultant time (constructors).
			College Arts Fest
			College Arts Fest
		5	Program to fmd biggest, smallest, sum and difference of two numbers using inline function.
3	21-02-2022 To 26-02-2022	6	Program to fmd biggest, smallest, sum and difference of two numbers using inline function.
		7	Program to find the area and volume of respective figures using firnction overloading
		8	Program to find the area and volume of respective figures using firnction overloading
4	28-02-2022 To 05-03-2022	9	Program to find the area and volume of respective figures using firnction overloading
		01-03-2022	Shivarathri
		10	Program to add the elements of an array to the corresponding elements of another array
		11	Program to add the elements of an array to the corresponding elements of another array
5	07-03-2022 To 12-03-2022	12	Program to negate the elements of an array. Use operator overloading function with the operator
		13	Program to negate the elements of an array. Use operator overloading function with the operator
		14	Program to negate the elements of an array. Use operator overloading function with the operator
		12-03-2022	Second Saturday
6	14-03-2022 To 19-03-2022	15	Program to compare two strings. Use operator overloading (:). Do not use any built in firnctions. (operator overloading
		16	Program to compare two strings. Use operator overloading (:). Do not use any built in firnctions. (operator overloading

		17	Program to compare two strings. Use operator overloading (:). Do not use any built in firnctions. (operator overloading
7	21-03-2022 To 26-03-2022	18	Program for Addition / Subtraction / Multiplication of complex numbers using classes. (operator overloading)
		19	Program for Addition / Subtraction / Multiplication of complex numbers using classes. (operator overloading)
		20	Program for Addition / Subtraction / Multiplication of complex numbers using classes. (operator overloading)
8	28-03-2022 To 02-04-2022	21	Define a class student with name, reg.no, date of birth and name of college as member data and functions to get and display these details. Design another class Test with subjects of study and grade for each subject as member data and corresponding input and output flrnctions. Derive a class Result from both Student and Test classes and Print the Result of each student with relevant information. (inheritance)
		22	Define a class student with name, reg.no, date of birth and name of college as member data and functions to get and display these details. Design another class Test with subjects of study and grade for each subject as member data and corresponding input and output flrnctions. Derive a class Result from both Student and Test classes and Print the Result of each student with relevant information. (inheritance)
		23	Define a class student with name, reg.no, date of birth and name of college as member data and functions to get and display these details. Design another class Test with subjects of study and grade for each subject as member data and corresponding input and output flrnctions. Derive a class Result from both Student and Test classes and Print the Result of each student with relevant information. (inheritance)
9	04-04-2022 To 09-04-2022	24	Define a class student with name, reg.no, date of birth and name of college as member data and functions to get and display these details. Design another class Test with subjects of study and grade for each subject as member data and corresponding input and output flrnctions. Derive a class Result from both Student and Test classes and Print the Result of each student with relevant information. (inheritance)
		25	Define a class student with name, reg.no, date of birth and name of college as member data and functions to get and display these details. Design another class Test with subjects of study and grade for each subject as member data and corresponding input and output flrnctions. Derive a class Result from both Student and Test classes and Print the Result of each student with relevant information. (inheritance)
		26	Start with an array of pointers to strings representing the days of the week. Provide firnctions to sort the strings into alphabetical order. Use pointers (array of pointers)

10	11-04-2022 To 16-04-2022	27	Start with an array of pointers to strings representing the days of the week. Provide firnctions to sort the strings into alphabetical order. Use pointers (array of pointers)
		28	Design two classes A and B with member data a and b respectively. Set values for the data member. Write a program to increment the interchange the values of both A and B. Use friend function. (friend functions)
		13-04-2022	Easter Holidays
		14-04-2022	Easter Holidays
		15-04-2022	Easter Holidays
		16-04-2022	Easter Holidays
11	18-04-2022 To 23-04-2022	18-04-2022	Easter Holidays
		29	I Internal Examination
		30	I Internal Examination
		31	I Internal Examination
		32	I Internal Examination
		33	I Internal Examination
12	25-04-2022 To 30-04-2022	34	Design two classes A and B with member data a and b respectively. Set values for the data member. Write a program to increment the interchange the values of both A and B. Use friend function. (friend functions)
		35	Design a class employee with relevant details. Read the details of n employees from the keyboard and write it into a File named 'EmpDataFile'. Also read the details back from the same file and display. Use separate functions to write and read into and out ofthe file. (can use object pointers)
13	02-05-2022 To 07-05-2022	02-05-2022	RAMZAN
		36	.Design a class employee with relevant details. Read the details of n employees from the keyboard and write it into a File named 'EmpDataFile'. Also read the details back from the same file and display. Use separate functions to write and read into and out ofthe file. (can use object pointers)
		37	Define a class to represent a bank account. Include the following members : Data Members: 1 . Name of the depositor. 2. Account number. 3. Type ofaccount. 4. Balance amount in the account. Member Functions 5. To assign initial values. 6. To deposit an amount. 7. To withdraw an amount after chggking the balance. 8. To display name and balance. Use appropriate main program. (application level calsspgrn)

14	09-05-2022 To 14-05-2022	38	Define a class to represent a bank account. Include the following members : Data Members: 1 . Name of the depositor. 2. Account number. 3. Type ofaccount. 4. Balance amount in the account. Member Functions 5. To assign initial values. 6. To deposit an amount. 7. To withdraw an amount after chggking the balance. 8. To display name and balance. Use appropriate main program. (application level calsspgrn)
		14-05-2022	Second Saturday
15	16-05-2022 To 21-05-2022	39	Define a class to represent a bank account. Include the following members : Data Members: 1 . Name of the depositor. 2. Account number. 3. Type ofaccount. 4. Balance amount in the account. Member Functions 5. To assign initial values. 6. To deposit an amount. 7. To withdraw an amount after chggking the balance. 8. To display name and balance. Use appropriate main program. (application level calsspgrn)
		40	Create a base class called shape. Use this class to store two double type values that could be used to compute the area of figures. Derive two specific classes called TRIANGLE and RECTANGLE from the base SHAPE. Add to the base lass, a member firnction get_data0 to initialize base class data members and another member firnction display_area ()to compute and display the area of figures. Make display_area() as a virtual function and redefine this function in the derived class to suite the requirements (virtual functions)
16	23-05-2022 To 28-05-2022	41	II Internal Examination
		42	II Internal Examination
		43	II Internal Examination
		44	II Internal Examination
		45	II Internal Examination
		46	II Internal Examination

17	30-05-2022 To 04-06-2022	47	Create a base class called shape. Use this class to store two double type values that could be used to compute the area of figures. Derive two specific classes called TRIANGLE and RECTANGLE from the base SHAPE. Add to the base lass, a member firnction get_data0 to initialize base class data members and another member firnction display_area ()to compute and display the area of figures. Make display_area() as a virtual function and redefine this function in the derived class to suite the requirements (virtual functions)
		48	Create a base class called shape. Use this class to store two double type values that could be used to compute the area of figures. Derive two specific classes called TRIANGLE and RECTANGLE from the base SHAPE. Add to the base lass, a member firnction get_data0 to initialize base class data members and another member firnction display_area ()to compute and display the area of figures. Make display_area() as a virtual function and redefine this function in the derived class to suite the requirements (virtual functions)

Subject Code:	**2C02 MAT-BCA**
Subject Name:	**Mathematics for BCA II**
No. of Credits:	**4**
No. of Contact Hours:	**72**
Hours per Week:	**4**
Name of the Teacher:	**Remya Raj**

SYLLABUS

Objective: -

1: Understand Functions of two or more variables, limits and continuity.
2: Understand partial derivatives, homogeneous functions, Euler's theorem on homogeneous functions, total derivative, differentiation of implicit functions and change of variables.
3: Understand basics of integration, Integration by parts, trigonometric integrals, trigonometric substitutions and integration of rational functions by partial fractions.
4: Understand Polar co-ordinates.
5: Understand Reduction formulae for trigonometric functions and evaluation of definite integrals
6: Understand Double and Iterated Integrals over rectangles, double integrals over general regions and triple integrals in rectangular coordinates.
7: Understand Eigen values, Eigen vectors, properties of Eigen values, Cayley- Hamilton theorem, reduction to diagonal form, similarity of matrices, powers of a matrix, reduction of quadratic form to canonical form and nature of a quadratic form

Module –I: Differential Calculus - Partial Differentiation (16 hours)
Text: Higher Engineering Mathematics (41st edition), B.S. Grewal
Functions of two or more variables, limits, continuity, partial derivatives, homogeneous functions, Euler's theorem on homogeneous functions, total derivative, differentiation of implicit functions, change of variables.(Sections 5.1, 5.2, 5.4, 5.5, 5.6)

Module – II:
Integral Calculus – Integration and Integration by Successive Reduction (20 hours)
Text: Integral Calculus, Santhi Narayanan and P.K. Mittal, S. Chand
Basics of Integration – Integration by parts, trigonometric integrals, trigonometric substitutions, integration of rational functions by partial fractions(Sections 8.1, 8.2, 8.3, 8.4, 8.5)
Integration of Trigonometric Functions: Integration of sin *nx* where *n* is a positive integer, Integration of evaluation of the definite integral ,Integration of , evaluation of the definite integral, Integration of evaluation of the definite integral, integration of (Derivation of formulae omitted)(Sections 4.1, 4.1.1, 4.2, 4.2.1, 4.3, 4.3.1, 4.4.1)

Module – III:
Integral Calculus – Multiple Integrals (14 hours)
Text: Thomas' Calculus (12th edition), Maurice D. Weir and Joel Hass, Pearson India Education Services, 2016
Polar co-ordinates, Double and Iterated Integrals over rectangles, double integrals over general regions, triple integrals in rectangular co-ordinates(Sections 11.3, 15.1, 15.2, 15.5)

Module – IV:
Linear Algebra - Eigen Values and Cayley-Hamilton Theorem(22 hrs)
Text: Higher Engineering Mathematics (41st edition), B.S. Grewal
Eigen values, eigen vectors, properties of eigen values, Cayley - Hamilton theorem (without proof),reduction to diagonal form, similarity of matrices, powers of a matrix, reduction of quadratic form to canonical form, nature of a quadratic form,**(**Sections 2.13, 2.14, 2.15, 2.16, 2.17, 2.18)

Books for Reference

1. Differential and Integral Calculus, S. Narayanan and T.K.M. Pillay, S.Viswanathan Printers and Publishers, Chennai
2. Calculus (10th edition), Anton, Bivens, Davis, Wiley-India
3. A Textbook of Matrices, Shanti Narayan and P.K. Mittal, S. Chand&Co
4. Theory of and Problems of Matrices, Frank Ayres JR, Schaum's Outline Series, McGraw- Hill Book Company
5. Advanced Engineering Mathematics (10th edition), E. Kreyszig, Wiley

TEACHING SCHEDULE

No of Weeks	Dates	Session	Topic
1	07-02-2022 To 12-02-2022	1	Functions of two or more variables, introduction, examples
		2	Limits, continuity, examples
		3	Problems
		4	Partial derivatives, examples
		5	Problems
		12-02-2022	Second Saturday
2	14-02-2022 To 19-02-2022	6	Homogeneous functions, examples, problems
		7	Problems
		8	Euler's theorem on homogeneous functions, problems
			College Arts Fest
			College Arts Fest
		9	Problems
3	21-02-2022 To 26-02-2022	10	Total derivative, problems
		11	Problems
		12	Differentiation of implicit functions, problems
		13	Problems
		14	Change of variables, problems
4	28-02-2022 To 05-03-2022	15	Problems
		01-03-2022	Shiva rathri
		16	**Class test**
		17	Module 2- Basics of Integration, introduction
		18	Integration by parts, problems
		19	Problems
5	07-03-2022 To 12-03-2022	20	Trigonometric integrals, problems
		21	Problems
		22	Trigonometric substitutions, problems
		23	Problems
		24	Integration of rational functions by partial fraction, problems

		12-03-2022	Second Saturday
6	14-03-2022 To 19-03-2022	25	Problems
		26	Integration of sin *nx* where *n* is a positive integer, problems
		27	Problems
		28	Evaluation of the definite integral $\int_0^{\pi/2} sin^n x\, dx$, problems
		29	Problems
7	21-03-2022 To 26-03-2022	30	Integration of $\cos^n x$, *problems*
		31	Problems
		32	Evaluation of the definite integral $\int_0^{\pi/2} cos^n x\, dx$,problems
		33	Integration of $\sin^n x \cos^n x$, *problems*
		34	Evaluation of the definite integral $\int_0^{\pi/2} sin^n x\, cos^n x\, dx$,problems
8	28-03-2022 To 02-04-2022	35	Integration of $\tan^n x$, *problems*
		36	**Class test**
		37	Polar co-ordinates, introduction, examples
		38	Double and Iterated Integrals over rectangles, problems
		39	Problems
9	04-04-2022 To 09-04-2022	40	Problems
		41	Double integrals over general regions, problems
		42	Problems
		43	Problems
		44	Triple integrals in rectangular co-ordinates, problems
10	11-04-2022 To 16-04-2022	45	Problems
		46	Problems
		13-04-2022	Easter Holidays
		14-04-2022	Easter Holidays
		15-04-2022	Easter Holidays
		16-04-2022	Easter Holidays
11	18-04-2022 To 23-04-2022	18-04-2022	Easter Holidays
			I Internal Examination
			I Internal Examination
			I Internal Examination
			I Internal Examination
			I Internal Examination
12	25-04-2022 To 30-04-2022	47	Problems
		48	**Revision**
		49	**Class test**
		50	Eigen values, examples
		51	Problems
13	02-05-2022	02-05-2022	RAMZAN

	To 07-05-2022	52	Eigen vectors, examples
		53	
		54	Problems
		55	Properties of eigen values, examples
		56	Cayley-Hamilton theorem, problems
14	09-05-2022 To 14-05-2022	57	Problems
		58	Reduction to diagonal form, problems
		59	Problems
		60	Problems
		61	Similarity of matrices, problems
			Second Saturday
15	16-05-2022 To 21-05-2022	63	Problems
		64	Powers of a matrix, examples
		65	Reduction of quadratic form to canonical form, problems
		66	Problems
		67	Problems
16	23-05-2022 To 28-05-2022		II Internal Examination
			II Internal Examination
			II Internal Examination
			II Internal Examination
			II Internal Examination
			II Internal Examination
17	30-05-2022 To 04-06-2022	68	Previous year question paper discussion
		69	Previous year question paper discussion
		70	**Revision**
		71	**Revision**
		72	**Class test**