

**DON BOSCO ARTS & SCIENCE
COLLEGE**

ANGADIKADAVU

*(Affiliated to Kannur University Approved by Government of
Kerala)*

ANGADIKADAVU P.O., IRITTY, KANNUR – 670706



COURSE PLAN

(B Sc Mathematics)

(2021 - 24)

SEMESTER – I

ACADEMIC YEAR 2021 – 22

I Semester (BSc MATHEMATICS) (2021 - 22)

Sl. No.	Name of Subjects with Code	Name of the Teacher	Duty Hours Per Week
1.	1A 01 ENG Communicative English	Father Edwin	5
2.	1A 02 ENG Readings on Kerala	Ansa	4
3.	1A 07 MAL Kadha Mathrukakal	Rajisha C	4
4.	1A 07 HIN Hindi Kavitha	Jainy N. George	4
5.	1B01 MAT Set Theory, Differential Calculus and Numerical Methods	Najumunnisa.k	4
6	1C01 STA Basic Statistics	Varsha C	4
7	1C01CSC Introduction To Computers And Programming	Hebin Layola	4
	Name of Class In-charge	Najumunnisa.k	

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	1A 07 MAL Kadha Mathrukakal. 1A 07 HIN Hindi Kavitha	1A 01 ENG Communicative English	1C01CSC Introduction To Computers And Programming	1B01 MAT Set Theory, Differential Calculus and Numerical Methods	1A 02 ENG Readings on Kerala
2	1C01 STA Basic Statistics	1A 01 ENG Communicative English	1A 07 MAL Kadha Mathrukakal. 1A 07 HIN Hindi Kavitha	1A 02 ENG Readings on Kerala	1C01 STA Basic Statistics
3	1B01 MAT Set Theory, Differential Calculus and Numerical Methods	1A 01 ENG Communicative English	1C01CSC Introduction To Computers And Programming	1A 07 MAL Kadha Mathrukakal. 1A 07 HIN Hindi Kavitha	1C01 STA Basic Statistics
4	1A 02 ENG Readings on Kerala	1A 01 ENG Communicative English	1B01 MAT Set Theory, Differential Calculus and Numerical Methods	1A 07 MAL Kadha Mathrukakal. 1A 07 HIN Hindi Kavitha	1C01CSC Introduction To Computers And Programming
5	1C01CSC Introduction To Computers And Programming	1A 01 ENG Communicative English	1C01 STA Basic Statistics	1A 02 ENG Readings on Kerala	1B01 MAT Set Theory, Differential Calculus and Numerical Methods

Subject Code:	1A01EG
Subject Name:	Communicative English 1
No. of Credits:	4
No. of Contact Hours:	90
Hours per Week:	5
Name of the Teacher:	Fr.Edwin

COMMON COURSE I Communicative English

SEMESTER :1

COURSE CODE :1A01 ENG Communicative English

HOURS PER WEEK :5

CREDIT :4

EXAM HRS :3

Course Outcomes

1. Understand and apply the rubrics of English grammar
2. Recognize and apply the basic patterns in English vocabulary
3. Read and elicit data, information, inferences and interpretations based on a given material in English
4. Develop the ability to speak in English in real life situations
5. Elicit necessary information after listening to an audio material in English
6. Compose academic and non-academic writings including letters, paragraphs and essays on a given topic and CV's for specific purposes

Module 1 (Grammar and Usage)- 2 Hours/Week

Grammar

Articles, Modals, Tenses, Voices, Subject- Verb Agreement, Direct & Reported Speech,

Usage

Question Tags, Types of Words, Phrasal Verbs and Idiomatic Expressions.

Module 2 (Listening and Speaking) -2 Hours/Week

Listening

What is Communication?, Phonemes in English, Syllables and Word Stress, Listening to News Bulletins, Listening to Instructions and Directions, Listening to Lectures, Listening to Speeches

Speaking

Greetings and Introductions, Small Conversations, Talking on Telephone, Making Requests, Making Enquiries, Making Suggestions, Expressing Gratitude, Complaining.

Module 3 (Reading and Writing)- 1 Hour/Week

Reading

Reading Official Letters and Profiles, Reading Advertisements, Reading News Reports, Reading Charts, Reading Online Content.

Writing

Writing Paragraphs, Taking and Making Notes, Essay and Academic Writing, Writing Letters,

Writing Resumes.

Prescribed Textbook: *Equip: English for Undergraduates* by Cambridge University

TEACHING SCHEDULE

No of Weeks	Dates	Session	Topic
1	06-10-2021 To 09-10-2021	1	Introduction to the paper
		2	Articles
		3	Articles
		09 October	Second Saturday
2	11-10-2021 To 16-10-2021	4	Articles
		5	Articles- Excercises
		6	Articles – Test Paper
		14 October	Mahanavami
		15 October	Vijayadashami
3	18-10-2021 To 23-10-2021	7	Modals
		8	Modals
		19 October	Nabidinam
		9	Tenses
		10	Tenses
		11	Tenses
4	25-10-2021 To 30-10-2021	12	Tenses
		13	Tenses
		14	Tenses
		15	Tenses
		16	Test Paper on Tenses& Modals
5	01-11-2021 To 06-11-2021	17	Voices
		18	Voices
		19	Voices
		20	Voices
		21	Voices
		04 November	Diwali
6	08-11-2021 To 13-11-2021	22	Subject Verb Agreement
		23	Subject Verb Agreement
		24	Subject Verb Agreement
		25	Subject Verb Agreement
		26	Reported Speech
		27	Reported Speech
28	Reported Speech		
		13 November	Second Saturday

7	15-11-2021 To 20-11-2021	29	Reported Speech
		30	Question Tags
		31	Question Tags
		32	Question Tags
		33	Test Paper on Question Tags,Reported Speech, Subject Verb agreement and Voice
		34	Types of words
8	22-11-2021 To 27-11-2021	35	Phrasal verbs and Idiomatic expressions
		36	Writing paragraphs
		37	Writing paragraphs
		38	Taking and making notes
		39	Taking and making notes
		40	Essay and Academic Writing
9	29-11-2021 To 04-12-2021	41	Essay and Academic Writing
		42	Essay and Academic Writing
		43	Writing Letters
		44	Writing Letters
		45	Writing Letters
		46	Writing Letters
10	06-12-2021 To 11-12-2021	47	Writing Letters
		48	Resumes and Cover Letters
		49	Resumes and Cover Letters
		50	Resumes and Cover Letters
		51	Test Paper on Writing
		11 December	Second Saturday
11	13-12-2021 To 18-12-2021	52	Communication
		53	Phonemes in English
		54	Phonemes in English
		55	Syllables and word stress
		56	Syllables and word stress
		57	NEWS and weather forecast
12	20-12-2021 To 25-12-2021	58	Listening to instructions
		59	Listening to lectures
		60	Listening to Talks
		61	Greetings and Introductions
		62	Greetings and Introductions
		24 December	CHRISTMASS VACATION
		25 December	CHRISTMASS VACATION
13	27-12-2021 To 01-01-2022	27 December	CHRISTMASS VACATION
		28 December	CHRISTMASS VACATION
		29 December	CHRISTMASS VACATION
		30 December	CHRISTMASS VACATION
		31 December	CHRISTMASS VACATION

		01 January	CHRISTMASS VACATION
14	03-01-2022 To 08-01-2022	63	I Internal Examination
		64	I Internal Examination
		65	I Internal Examination
		66	Internal Exam Question Paper Discussion
		67	Small Conversations
		68	Talking on Telephone
15	10-01-2022 To 15-01-2022	69	Making Enquiries
		70	Making Suggestions
		71	Gratitude and apologising
		72	Complaining
		73	READIG- Letters and Profiles
		74	Reading Ads
16	17-01-2022 To 22-01-2022	75	Reading News Report
		76	Reading Charts,graphs,and tables
		77	Reading online content
		78	Revision
		79	Revision
		80	Revision
17	24-01-2022 To 29-01-2022	81	Test Paper Module 1&2
		82	Revision
		26 January	Republic Day
		83	Revision
		84	Test Paper Module 3
		85	Revision
18	31-01-2022 To 05-02-2022	86	II Internal Examination
		87	II Internal Examination
		88	II Internal Examination
		89	II Internal Examination
		90	II Internal Examination

Subject Code:	1A02ENG
Subject Name:	COMMON COURSE –Readings on Kerala
No. of Credits:	3
No. of Contact Hours:	72
Hours per Week:	4
Name of the Teacher:	Ansa George

SYLLABUS

Semester	CourseCode	Hoursperweek	Credit	ExamHrs
1A02ENG	Readings on Kerala	4	3	3

MODULE 1

1. “Conversation”:SreeNarayana Guru
2. “Curing Caste”:SahodaranAyyappan
3. Excerpts from “Eri”: PradeepanPambirikunnu
4. Excerpts from Kelu: N. Sasidharan, E.P.Rajagopalan
5. Excerpts from “Parting from the Path of Life”: Cherukad GovindaPisharodi

MODULE 2

1. “About My Race: A Song”: PoykayilAppachan
2. “The KuttippuramBridge”: Idasseri
3. “Courageous Act”: AnasuyaMenon
4. “Vaikom Satyagraha”: K. N.Panikkar
5. “The Voice”: Suresh Menon

TEACHING SCHEDULE

No of Weeks	Dates	Session	Topic
1	06-10-2021 To 09-10-2021	1	“Conversation” : Sree Narayana Guru
		2	“Conversation” : Sree Narayana Guru
		3	“Conversation” : Sree Narayana Guru
		4	“Conversation” : Sree Narayana Guru
		09 October	Second Saturday
2	11-10-2021	5	“Conversation” : Sree Narayana Guru
		6	Textbook Q & A Discussion

	To 16-10-2021	7	Class Test
		14 October	Mahanavami
		15 October	Vijayadashami
3	18-10-2021 To 23-10-2021	8	Excerpts from “Eri” : Pradeepan pambirikunnu
		9	Excerpts from “Eri” : Pradeepan pambirikunnu
		19 October	Nabidinam
		10	Excerpts from “Eri” : Pradeepan pambirikunnu
		11	Excerpts from “Eri” : Pradeepan pambirikunnu
4	25-10-2021 To 30-10-2021	12	Textbook Q & A Discussion
		13	Class Test
		14	Excerpts from “Kelu” : N. Sasidharan, E.P.Rajagopalan
		15	Excerpts from “Kelu” : N. Sasidharan, E.P.Rajagopalan
5	01-11-2021 To 06-11-2021	16	Excerpts from “Kelu” : N. Sasidharan, E.P.Rajagopalan
		17	Excerpts from “Kelu” : N. Sasidharan, E.P.Rajagopalan
		18	Textbook Q & A Discussion
		19	Class Test
		20	Excerpts from “Parting from the Path of Life” : Cherukad Govinda Pisharodi
6	08-11-2021 To 13-11-2021	04 November	Diwali
		21	Excerpts from “Parting from the Path of Life” : Cherukad Govinda Pisharodi
		22	Excerpts from “Parting from the Path of Life” : Cherukad Govinda Pisharodi
		23	Excerpts from “Parting from the Path of Life” : Cherukad Govinda Pisharodi
		24	Textbook Q & A Discussion
7	15-11-2021 To 20-11-2021	25	Class Test
		13 November	Second Saturday
		26	“Not an Alphabet in Sight” : Poykayil Appachan
		27	“Not an Alphabet in Sight” : Poykayil Appachan
		28	Textbook Q & A Discussion
8	22-11-2021 To 27-11-2021	29	Class Test
		30	“Kuttippuram Palam” : Idasseri
		31	“Kuttippuram Palam” : Idasseri
		32	“Kuttippuram Palam” : Idasseri
9	29-11-2021 To 04-12-2021	33	“Kuttippuram Palam” : Idasseri
		34	Textbook Q & A Discussion
		35	Class Test
		36	“Courageous Act” : Anasuya Menon
10	06-12-2021	37	“Courageous Act” : Anasuya Menon
		38	“Courageous Act” : Anasuya Menon
		39	“Courageous Act” : Anasuya Menon
		40	“Courageous Act” : Anasuya Menon
		41	Textbook Q & A Discussion

	To 11-12-2021	42	Class Test
		43	“Vaikom Satyagraha” : K.N. Panikkar
		11 December	Second Saturday
11	13-12-2021 To 18-12-2021	44	“Vaikom Satyagraha” : K.N. Panikkar
		45	“Vaikom Satyagraha” : K.N. Panikkar
		46	“Vaikom Satyagraha” : K.N. Panikkar
		47	“Vaikom Satyagraha” : K.N. Panikkar
12	20-12-2021 To 25-12-2021	48	Textbook Q & A Discussion
		49	Class Test
		50	“Curing Caste” : Sahodaran Ayyappan
		51	“Curing Caste” : Sahodaran Ayyappan
		24 December	
		25 December	
13	27-12-2021 To 01-01-2022	27 December	
		28 December	
		29 December	
		30 December	
		31 December	
		01 January	
14	03-01-2022 To 08-01-2022	52	I Internal Examination
		53	I Internal Examination
		54	I Internal Examination
		55	“Curing Caste” : Sahodaran Ayyappan
15	10-01-2022 To 15-01-2022	56	“Curing Caste” : Sahodaran Ayyappan
		57	Textbook Q & A Discussion
		58	Class Test
		59	“Voice” : Suresh Menon
16	17-01-2022 To 22-01-2022	60	“Voice” : Suresh Menon
		61	“Voice” : Suresh Menon
		62	“Voice” : Suresh Menon
		63	Textbook Q & A Discussion
17	24-01-2022 To 29-01-2022	64	Class Test
		65	Revision : Module I
		26 January	Republic Day
		66	Revision : Module II
		67	Revision Test
18	31-01-2022 To 05-02-2022	68	II Internal Examination
		69	II Internal Examination
		70	II Internal Examination
		71	II Internal Examination
		72	II Internal Examination

Subject Code:	1AO7HIN
Subject Name:	COMMON COURSE –Hindi kavitha
No. of Credits:	4
No. of Contact Hours:	72
Hours per Week:	4
Name of the Teacher:	Jainy N George

SYLLABUS

Semester	CourseCode	Hoursperweek	Credit	ExamHrs
1	1A07HIN	4	4	3

UnitI:

1. □□□□□□□□-□□-1
□□□□-□□□□□□□□□□
2. □□□□□□□□-□□□□□□□□-1,2
3. □□□□-□□□□-□□□□□□□□□□(15Hrs)

UnitII:

1. □□□□□□□□□□□□□□-□□□□
2. □□□□□□□□□□□□□□□□□□□□□□□□-□□□□□□□□□□□□
3. □□□□□□□□□□□□□□-□□□□□□□□□□□□□□□□
4. □□□□□□□□□□□□□□□□-□□□□□□□□(17Hrs)

UnitIII:

1. □□□□□□□□□□□□□□□□□□□□□□□□-□□□□□□□□□□□□
2. □□□□□□□□-□□□□(15Hrs)

UnitIV:

1. □□□□□□□□□□□□□□□□-□□□□□□□□□□
2. □□□□□□□□□□-□□□□□□□□□□□□□□
3. □□□□□□□□□□□□□□□□-□□□□□□□□
4. □□□□□□□□□□□□□□□□-□□□□□□□□
5. □□□□□□□□□□□□□□□□□□□□□□□□-□□□□□□□□□□□□
6. □□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□(25Hrs)

TEACHING SCHEDULE

No of Weeks	Dates	Session	Topic
1	06-10-2021 To 09-10-2021	1	□□□□□ □□□□□□□□ □□ □□□□□□
		2	□□□□□ □□□□□□□□ □□ □□□□□ □□□
		3	□□□ □□□□□□ -□□□□□□□□
		4	□□
		09 October	Second Saturday
2	11-10-2021 To 16-10-2021	5	□□
		6	□□□□
		7	□□□□
		14 October	Mahanavami
		15 October	Vijayadashami
8	□□□ □□□□□□ - □□□□□□□□□		
3	18-10-2021 To 23-10-2021	9	□□□□ □□ □□
		19 October	Nabidinam
		10	□□□□ □□ □□
		11	□□□ □□□□□□ - □□□□□
12	□□□□		
4	25-10-2021 To 30-10-2021	13	□□□□
		14	□□□□
		15	□□□□□ □□□□□□□□
		16	□□□ □□□□□□ - □□□□□□□□□□ □□□□□
		17	□□□□
5	01-11-2021 To 06-11-2021	18	□□□□
		19	□□□□
		20	□□□ □□□□□□ - □□□□□□□□□□ □□□□□□□□□ □□□□□□□
		04 November	Diwali
		21	□□□□ □□□ □□ □□□
6	08-11-2021 To 13-11-2021	22	□□□□ □□□ □□ □□□
		23	□□□□ □□□ □□ □□□
		24	□□□□□□□□ □□□□□□ - □□□□□□□□ □□□□□
		25	□□□ □□□□ □□ □□□□□□□□
		13 November	Second Saturday
7	15-11-2021 To 20-11-2021	26	□□□ □□□□ □□ □□□□□□□□
		27	□□□ □□□□ □□ □□□□□□□□
		28	□□□ □□□□□□ - □□□□□□□□□□ □□□□□
		29	□□□□□□□□
		30	□□□□□□□□
8	22-11-2021 To 27-11-2021	31	□□□□□□□□
		32	□□□□□ □□□□□□□□
		33	□□□ □□□□□□ - □□□□□□□□□□ □□□□□ □□□□□□□□
		34	□□□□□□□ □□ □□□□□

9	29-11-2021 To 04-12-2021	35	□□□□□□ □□ □□□□
		36	□□□□□□ □□ □□□□
		37	□□□□□□ □□ □□□□
		38	□□□ □□□□□ - □□□□□□
		39	□□□
10	06-12-2021 To 11-12-2021	40	□□□
		41	□□□
		42	□□□
		43	□□□□□ □□□□□□□
		11 December	Second Saturday
11	13-12-2021 To 18-12-2021	44	□□□ □□□□□ - □□□□□ □□□□□□
		45	□□ □□□□□□
		46	□□ □□□□□□
		47	□□ □□□□□□
12	20-12-2021 To 25-12-2021	48	□□□ □□□□□ - □□□□□□ □□□□□□
		49	□□□□□ □□
		50	□□□□□ □□
		51	□□□□□ □□
		24 December	
		25 December	
13	27-12-2021 To 01-01-2022	27 December	
		28 December	
		29 December	
		30 December	
		31 December	
		01 January	
14	03-01-2022 To 08-01-2022	52	I Internal Examination
		53	I Internal Examination
		54	I Internal Examination
		55	□□□ □□□□□ - □□□□ □□□
15	10-01-2022 To 15-01-2022	56	□□□□ □□□ □□□□□
		57	□□□□□ □□□ □□□□□
		58	□□□ □□□□□ - □□□□ □□□□□□
		59	□□ □□□□□□
16	17-01-2022 To 22-01-2022	60	□□ □□□□□□
		61	□□□□□□□□ □□□□□ - □□□□□□□□□□
		62	□□□□□□
		63	□□□ □□□□□ - □□□□□□□□ □□□□□□□□
17	24-01-2022 To 29-01-2022	64	□□□□□ □□ □□□□
		65	□□□□□ □□ □□□□
		26 January	Republic Day
		66	□□□ □□□□□ - □□□□□□□□□□□□
		67	□□□□ □□ □□□ □□□ □□ □□□

18	31-01-2022 To 05-02-2022	68	II Internal Examination
		69	II Internal Examination
		70	II Internal Examination
		71	II Internal Examination
		72	II Internal Examination

Subject Code:	1B01MAT
Subject Name:	SET THEORY, DIFFERENTIAL CALCULUS AND NUMERICAL METHODS
No. of Credits:	4
No. of Contact Hours:	72
Hours per Week:	4
Name of the Teacher:	Najumunnisa.K

SET THEORY, DIFFERENTIAL CALCULUS AND NUMERICAL METHODS

Unit I - Relations and Functions (22 hours)

Relations, Types of relations, Partitions, Equivalence relation, Partial ordering relation, Functions, Composition of functions, One-to-one, onto and invertible functions, Mathematical functions, exponential function, logarithmic function (Sections 3.3, 3.6, 3.8, 3.9, 3.10 and sections 4.1 to 4.5 of Text 1).

Unit II – Limit, Continuity and Successive differentiation (18 hours)

Limit of a function and limit laws, continuity, Inverse functions and their derivatives (Sections 2.2, 2.5, 7.1 of Text 2. Proof of Theorem 10 in section 2.5 is omitted). Successive differentiation, standard results, n^{th} derivatives, Leibnitz theorem (Sections 4.1, 4.2 of Text 3).

Unit III – Functions of several variables (22 hours)

Functions of several variables, limit and continuity, partial derivatives, chain rule (theorems without proof) (Sections 14.1, 14.2, 14.3, 14.4 of Text 2). Homogenous functions, Euler's theorem on homogenous functions (Sections 11.8, 11.8.1 of Text 4).

Unit IV - Solution of Algebraic and Transcendental Equations (10 Hours)

Introduction to solution of algebraic and transcendental equation, Initial approximations, Bisection method, Regula-falsi method, Newton-Raphson method (Sections 3.2, 3.2.1, 3.3, 3.4, 3.5 of Text 5).

Texts

1. S. Lipschutz, Set Theory and Related Topics (2nd edition), Schaum's Series
2. G.B, Thomas Jr., M.D. Weir and J.R. Hass, Thomas' Calculus (12th edition), Pearson Education
3. Higher Engineering Mathematics, B.S. Grewal (43rd edition), Khanna Publishers
4. S Narayan and P.K Mittal , Differential calculus, Revised Edition, S. Chand & Company Ltd

TEACHING SCHEDULE

No of Weeks	Dates	Session	Topic
1	06-10-2021 To 09-10-2021	1	Relations, Types of relations
		2	Examples
		3	Problems
		09 October	Second Saturday
2	11-10-2021 To 16-10-2021	4	Partitions
		5	Problems
		14 October	Mahanavami
3	18-10-2021 To 23-10-2021	6	Problems
		19 October	Nabidinam
		7	Equivalence relation
		8	Problems
		9	Problems
4	25-10-2021 To 30-10-2021	10	Problems
		11	Problems
		12	Functions, Problems
		13	Theorems
5	01-11-2021 To	14	Problems
		15	Problems
		16	Discussion

	06-11-2021	04 November	Diwali
		17	One-to-one functions
6	08-11-2021 To 13-11-2021	18	Problems
		19	onto and invertible functions
		20	Problems
		21	Theorems
		13 November	Second Saturday
7	15-11-2021 To 20-11-2021	22	Class Test
		23	Problems
		24	Problems
		25	Mathematical functions
8	22-11-2021 To 27-11-2021	26	Problems
		27	exponential functions
		28	Problems
		29	Discussion
		30	Seminar
9	29-11-2021 To 04-12-2021	31	Seminar
		32	Seminar
		33	Limit of a function Definition
		34	Examples
10	06-12-2021 To 11-12-2021	35	limit laws
		36	Problems
		37	continuity, Inverse functions and their derivatives
		38	Problems
		11 December	Second Saturday
11	13-12-2021 To 18-12-2021 To 18-12-2021	39	Inverse functions
		40	Problems
		41	derivatives
		42	Problems
		43	Problems
		44	Successive differentiation
12	20-12-2021 To 25-12-2021	45	Problems
		46	Problems
		47	standard results
		24 December	
		25 December	
13	27-12-2021 To 01-01-2022	27 December	
		28 December	
		29 December	
		30 December	
		31 December	
		01 January	

14	03-01-2022 To 08-01-2022	48	I Internal Examination
		49	I Internal Examination
		50	I Internal Examination
		51	Functions of several variables,
		52	Problems
15	10-01-2022 To 15-01-2022	53	Problems
		54	Problems
		55	Problems
		56	Homogenous functions
		57	Problems
		58	Problems
16	17-01-2022 To 22-01-2022	59	Euler's theorem on homogenous functions
		60	Problems
		61	Introduction to solution of algebraic and transcendental equation
		62	Problems
		63	Initial approximations
17	24-01-2022 To 29-01-2022	64	Problems
		65	Discussion
		26 January	Republic Day
		66	Regula-falsi method
		67	Problems
18	31-01-2022 To 05-02-2022	68	II Internal Examination
		69	II Internal Examination
		70	II Internal Examination
		71	II Internal Examination
		72	II Internal Examination

Subject Code:	1C01 STA
Subject Name:	BASIC STATISTICS
No. of Credits:	3
No. of Contact Hours:	72
Hours per Week:	4
Name of the Teacher:	VARSHA C & NOBLE PHILIP

SYLLABUS

Objectives:

Student should be able to

- 1: Understand the different types of data.
- 2: Compute various measures of central tendency, measures of variation.
- 3: Analyse the relationship between two variables.
- 4: Acquire knowledge in time series data and compute various index numbers.

Unit I :

Statistical Methods - Scales of measurement - Nominal, Ordinal, Ratio and Interval, Collection of data, Primary and Secondary data, Census method, Sample survey method, Comparison of census method and sample survey method, Principal steps in a sample survey, Types of sampling - probability, restricted and non-restricted sampling, judgement and mixed sampling, SRSWOR, SRSWR, stratified and systematic random sampling(concepts only).

Unit II :

Measures of Central Tendency - Definition and properties of various measures of central tendency - A.M, weighted A.M, Median, Mode, G.M., H.M. and weighted averages, Partition values - Quartiles, Deciles, Percentiles, Dispersion - Definition and properties of various measures of dispersion - Range, Q.D, M.D, S.D, and relative measures of dispersion, Moments - raw moments, central moments and relation between them, Skewness and Kurtosis - Definition and various measures of skewness and kurtosis.

Unit III:

Correlation and Regression Analysis - Method of least squares - Fitting of linear, quadratic and exponential curves, Regression analysis - linear regression, fitting of regression lines, regression coefficients and their properties, Correlation analysis - Definition and properties of correlation coefficient, Rank correlation coefficient-formula and problems only, Definitions of partial and multiple correlation coefficients(trivariate case only).

Unit IV:

Time Series and Index Numbers- Time series - Meaning, need, components and models of time series, estimation of linear trend by moving average 53 method and least square method, Index numbers - Meaning and uses of index numbers, weighted index numbers - Laspeyer's, Paasche's and Fisher's index numbers, time reversal and factor reversal tests.

Books for Study:

1. Gupta, S. C. & Kapoor, V. K. (1980). Fundamentals of Mathematical Statistics, Sultan Chand & Sons, New Delhi.
2. Gupta, S. C. & Kapoor, V. K. (1994). Fundamentals of Applied Statistics, Sultan Chand & Sons, New Delhi.
3. Gupta, S. P. (2004). Statistical Methods, Sultan Chand & Sons, New-Delhi.

Books for Reference:

1. Mukhopadhyay, P. (1996). Mathematical Statistics, New Central Book Agency (P) Ltd., Kolkata.
2. Agarwal, B. L. (2006). Basic Statistics, 4th Edition, New Age International (P) Ltd., New Delhi.

TEACHING SCHEDULE

No of Weeks	Dates	Session	Topic
1	06-10-2021 To 09-10-2021	1	Introduction
		2	Statistical methods
		3	Scales of measurement
		09 October	Second Saturday
2	11-10-2021 To 16-10-2021	4	Nominal, Ordinal, Ratio and Interval
		5	Collection of data
		6	Primary and Secondary data
		14 October	Mahanavami
		15 October	Vijayadashami
3	18-10-2021 To 23-10-2021	7	Examples
		8	Census method
		19 October	Nabidinam
		9	Examples
		10	Sample survey method
4	25-10-2021 To 30-10-2021	11	Comparison of census method & sample survey method
		12	Principal steps in a sample survey
		13	Types of sampling
		14	Judgement and Mixed Sampling
		15	SRSWOR
		16	SRSWR

		17	Stratified and Systematic Random Sampling
5	01-11-2021 To 06-11-2021	18	Revision
		19	Revision
		20	Revision
		04 November	Diwali
		21	Class test
		22	Measures of Central Tendency
6	08-11-2021 To 13-11-2021	23	Definition and properties of various measures of central tendency
		24	A.M, Weighted A.M
		25	Median, Mode
		26	Examples
		27	Examples
		13 November	Second Saturday
7	15-11-2021 To 20-11-2021	28	Examples
		29	G.M., H.M. and weighted averages
		30	Examples
		31	Partition values - Quartiles
		32	Examples
8	22-11-2021 To 27-11-2021	33	Deciles, Percentiles
		34	Dispersion
		35	Definition and properties of various measures of dispersion
		36	Range, Q.D, M.D, S.D, and relative measures of dispersion
		37	Assignment
9	29-11-2021 To 04-12-2021	38	Class Test
		39	Moments
		40	Raw moments ,Central moments and relation between them
		41	Skewness and Kurtosis
		42	Definition and various measures of skewness and kurtosis
10	06-12-2021 To 11-12-2021	43	Revision
		44	Correlation and Regression Analysis
		45	Method of least squares
		46	Fitting of linear equation
		47	Examples
		11 December	Second Saturday
11	13-12-2021 To 18-12-2021	48	Quadratic and exponential curves
		49	Examples
		50	Regression analysis
		51	Linear regression
		52	Fitting of regression lines

12	20-12-2021 To 25-12-2021	53	Regression coefficients and their properties
		54	Class test
		55	Correlation analysis
		56	Definition and properties of correlation coefficient
		57	Rank correlation coefficient-formula and problems on
		24 December	
13	27-12-2021 To 01-01-2022	25 December	
		27 December	
		28 December	
		29 December	
		30 December	
		31 December	
14	03-01-2022 To 08-01-2022	01 January	
			I Internal Examination
			I Internal Examination
			I Internal Examination
		58	Definitions of partial and multiple correlation coefficients(trivariate case only)
		59	Time Series and Index Numbers
15	10-01-2022 To 15-01-2022	60	Time series - Meaning, need, components and models of time series
		61	Estimation of linear trend by moving average 53 method and least square method
		62	Index numbers - Meaning and uses of index numbers
		63	Index numbers - Meaning and uses of index numbers
		64	weighted index numbers
16	17-01-2022 To 22-01-2022	65	weighted index numbers
		66	Examples
		67	Laspeyer's, Paasche's and Fisher's index numbers
		68	examples
		69	Time reversal and factor reversal tests
17	24-01-2022 To 29-01-2022	70	Time reversal and factor reversal tests
		71	Revision
		72	Class test
18	31-01-2022 To 05-02-2022	26 January	Republic Day
			II Internal Examination
			II Internal Examination
			II Internal Examination
			II Internal Examination

Subject Code:	1C 01 CSC
Subject Name:	INTRODUCTION TO COMPUTERS AND PROGRAMMING
No. of Credits:	3
No. of Contact Hours:	72
Hours per Week:	4
Name of the Teacher:	Hebin Layola

SYLLABUS

1C 01 CSC INTRODUCTION TO COMPUTERS AND PROGRAMMING

Unit I: Introduction to Computers Characteristics of Computers, Computer System Hardware, Basic Concepts of CPU, ALU, Registers, Control Unit and System Bus, Components Inside a Computer Cabinet (Motherboard, BIOS, CMOS Chip, Ports and Interfaces, Expansion Slots, Memory Chips, Storage Devices, Processor - Basic functions), Computer Memory Representation, Memory Hierarchy, Basic Concepts of Cache Memory, Primary Memory (RAM and ROM), Secondary Memory Types (Working principle is not required). (10 Hrs)

Unit II: Number System and Codes Decimal, Binary, Hexa-Decimal and Octal Number Systems, Conversion Between Number Systems, Binary Arithmetic, Complements of Binary Numbers (1's Complement and 2's Complement), Signed Numbers, Floating Point Numbers, Binary Coded Decimal (8421 BCD Code, Applications, BCD Addition), Gray Code, ASCII Code, Unicode (8 Hrs)

Unit III: Types of Software and Networking System Software, Operating System (Functions of Operating Systems), Application Software, Software Acquisition (Retail, OEM, Demo, Shareware, Freeware, Open-Source Software), Computer Networks (Importance, Types of Networks – LAN, MAN, WAN). (8 Hrs)

Unit IV: Introduction to Programming Types of Computer Languages (Machine Language, Assembly Language, High-level Language), Basic Concepts of Compiler, Assembler, Interpreter, Linker and Loader. Program Development Life Cycle, Algorithm, Flowcharts, Program Control Structures (Sequential, Selection, Loop), Programming Paradigms (Structured Programming, Basic Idea of Object-Oriented Programming), Characteristics of a Good Program (10 Hrs)

Books for Study:

1. Anita Goel, Computer Fundamentals, Pearson
 2. Thomas L. Floyd, Digital Fundamentals, 11th Edition, Pearson
- Books for Reference:

1. Rajaraman V and Adabala N, Fundamentals of Computers, PHI
2. Brian W Kernighan, D is for Digital: What a well-informed person should know about computers and communications, CreateSpace Independent Publishing Platform
3. Stewart Venit and Elizabeth Drake, Prelude to Programming (6th Edition), Pearson

TEACHING SCHEDULE

No of Weeks	Dates	Session	Topic
1	06-10-2021 To 09-10-2021	1	Unit I: Introduction to Computers
		2	Characteristics of Computers
		3	Computer System Hardware
		4	Basic Concepts of CPU
		09 October	Second Saturday
2	11-10-2021 To 16-10-2021	5	ALU, Registers
		6	Control Unit and System Bus
		7	Components Inside a Computer Cabinet
		8	Motherboard, BIOS, CMOS Chip
		14 October	Mahanavami
		15 October	Vijayadashami
3	18-10-2021 To 23-10-2021	9	Ports and Interfaces, Expansion Slots
		10	Memory Chips, Storage Devices
		19 October	Nabidinam
		11	Processor - Basic functions
		12	Computer Memory Representation
4	25-10-2021 To 30-10-2021	13	Memory Hierarchy
		14	Basic Concepts of Cache Memory
		15	Primary Memory (RAM and ROM)
		16	Secondary Memory Types (Working principle is not required)
5	01-11-2021 To 06-11-2021	17	Revision-Module 1
		04 November	Diwali
		18	Class Test-Module 1
		19	Unit II: Number System and Codes
6	08-11-2021	20	Decimal, Binary
		21	Hexa-Decimal and Octal Number Systems
		22	Conversion Between Number Systems

	To 13-11-2021	23	Conversion Between Number Systems
		13 November	Second Saturday
7	15-11-2021 To 20-11-2021	24	Conversion Between Number Systems
		25	Binary Arithmetic
		26	Complements of Binary Numbers (1's Complement and 2's Complement)
		27	Signed Numbers
8	22-11-2021 To 27-11-2021	28	Floating Point Numbers
		29	Binary Coded Decimal (8421 BCD Code
		30	Applications, BCD Addition)
		31	Gray Code
9	29-11-2021 To 04-12-2021	32	ASCII Code
		33	Unicode
		34	Revision-Module 2
		35	Class Test-Module 2
		36	Unit III: Types of Software and Networking
10	06-12-2021 To 11-12-2021	37	Operating System (Functions of Operating Systems)
		38	Application Software
		39	Software Acquisition (Retail, OEM, Demo, Shareware, Freeware)
		40	Open-Source Software
		11 December	Second Saturday
11	13-12-2021 To 18-12-2021	41	Computer Networks -Importance
		42	Types of Networks – LAN
		43	MAN, WAN
		44	System Software
12	20-12-2021 To 25-12-2021	45	Revision-Module 3
		46	Class Test-Module 3
		47	Unit-IV-Introduction to Programming,
		48	Types of Computer Languages -Machine Language
		24 December	Christmas Vacation
		25 December	Christmas
13	27-12-2021 To 01-01-2022	27 December	Christmas Vacation
		28 December	Christmas Vacation
		29 December	Christmas Vacation
		30 December	Christmas Vacation
		31 December	Christmas Vacation
		01 January	Christmas Vacation
14	03-01-2022 To	49	I Internal Examination
		50	I Internal Examination
		51	I Internal Examination

	08-01-2022	52	Assembly Language
15	10-01-2022 To 15-01-2022	53	High-level Language
		54	Basic Concepts of Compiler, Assembler, Interpreter
		55	Linker and Loader
		56	Program Development Life Cycle
16	17-01-2022 To 22-01-2022	57	Algorithm
		58	Flowcharts
		59	Program Control Structures -Sequential
		60	Selection
17	24-01-2022 To 29-01-2022	61	Loop
		62	Basic Idea of Object-Oriented Programming)
		63	Programming Paradigms
		26 January	Republic Day
		64	Structured Programming
		65	Characteristics of a Good Program
18	31-01-2022 To 05-02-2022	66	Revision-Module 4, Class Test-Unit-IV
		67	II Internal Examination
		68	II Internal Examination
		69	II Internal Examination
		70	II Internal Examination
		71	II Internal Examination
		72	II Internal Examination

Subject Code:	1A07MAL
Subject Name:	കഥ മാതൃകകൾ
No. of Credits:	04
No. of Contact Hours:	72
Hours per Week:	04
Name of the Teacher:	Rajisha C K

SYLLABUS

Semester	Course Code	Hours per week	Credit	Exam Hrs
First	1A07MAL	4	4	3

യൂണിറ്റ് 1

ചെറുകഥ

- മദിരാശിപിത്തലാട്ടം (വേങ്ങയിൽകുഞ്ഞിരാമൻ നായനാർ)
- ഉത്തരം കിട്ടാത്ത ചോദ്യം (വി ടി ഭട്ടതിരിപ്പാട്)
- മരപ്പാവകൾ (കാരുർ നീലകണ്ഠപ്പിള്ള)

യൂണിറ്റ് 2

- അശോക (സാനാ ജോസഫ്)
- മോദസ്ഥിരനായങ്ങു വസിപ്പ മലപോലെ (എസ് ഹരീഷ്)
- വന്മരങ്ങൾ വീഴുമ്പോൾ (എൻ എസ് മാധവൻ)

യൂണിറ്റ് 3

നോവൽ

- നൂറ്റാണ്ടിനോടനുബന്ധിച്ച് (ജയമോഹൻ)

യൂണിറ്റ് 4

നോവൽ ഭാഗങ്ങൾ

- സരസ്വതി വിജയം അദ്ധ്യായം 1 (പോത്തേരി കുഞ്ഞമ്പു)
- ഖസാക്കിന്റെ ഇതിഹാസം അദ്ധ്യായം 9 (ഓ വി വിജയൻ)
- ആരാച്ചാർ അദ്ധ്യായം 24 (കെ ആർ മീര)
- ഒരു തെരുവിന്റെ കഥ അദ്ധ്യായം 7 (എസ് കെ പൊറ്റക്കാട്)

TEACHING SCHEDULE

No of Weeks	Dates	Session	Topic
1	06-10-2021 To 09-10-2021	1	ഭാഷാ പഠനത്തിന് ഒരാമുഖം
		2	ചെറുകഥാ സാഹിത്യ ചരിത്രം
		3	വേങ്ങയിൽ കുഞ്ഞിരാമൻ നായരും ആദ്യകാല കഥകൾ
		4	മദിരാശിപ്പിത്തലാട്ടം വിശദപഠനം
		09 October	ക്ലാസ്സ് പരീക്ഷ 01
2	11-10-2021 To 16-10-2021	5	നവോത്ഥാന കഥകളും വീട്ടി ഭട്ടത്തിരിപ്പാട് എന്ന എഴുത്തുകാരൻ
		6	ഉത്തരം കിട്ടാത്ത ചോദ്യം വിശദപഠനം
		7	ഉത്തരം കിട്ടാത്ത ചോദ്യം വിശദപഠനം
		14 October	Mahanavami
		15 October	Vijayadashami
		8	ക്ലാസ്സ് പരീക്ഷ 02
3	18-10-2021 To 23-10-2021	9	വാദ്യം കഥകളും കാരൂർ നീലകണ്ഠപ്പിള്ളയുടെ കഥാലോകം
		19 October	
		10	മരപ്പാവകൾ വിശദപഠനം
		11	മരപ്പാവകൾ വിശദപഠനം
		12	ക്ലാസ്സ് പരീക്ഷ 03
4	25-10-2021 To 30-10-2021	13	പെണ്ണുഴത്ത് സാഹിത്യവും മാധവിക്കുട്ടിയും
		14	തരിശുനിലം വിശദപഠനം
		15	തരിശുനിലം വിശദപഠനം
		16	തരിശുനിലം വിശദപഠനം
		17	ക്ലാസ്സ് പരീക്ഷ 04
5	01-11-2021	18	സാനാ ജോസഫിന്റെ കഥാലോകം
		19	അശോക വിശദപഠനം

	To 06-11-2021	20	അശോക വിശദപഠനം
		04 November	Diwali
		21	ക്ലാസ്സ് പരീക്ഷ 05
6	08-11-2021 To 13-11-2021	22	എസ് ഹരീഷ്ന്റെ കഥകൾ
		23	മോദസ്ഥിതനായങ്ങളു വസിപ്പു മലപോലെ വിശദപഠനം
		24	മോദസ്ഥിതനായങ്ങളു വസിപ്പു മലപോലെ വിശദപഠനം
		25	ക്ലാസ്സ് പരീക്ഷ 06
		13 November	Second Saturday
7	15-11-2021 To 20-11-2021	26	എൻ എസ് മാധവൻ, ചരിത്ര കഥകളും
		27	ഇന്ദിരാഗാന്ധി വധവുമായി ബന്ധപ്പെട്ട വസ്തുതകൾ
		28	വൻമരങ്ങൾ വീഴുമ്പോൾ വിശദപഠനം
		29	വൻമരങ്ങൾ വീഴുമ്പോൾ വിശദപഠനം
		30	വൻമരങ്ങൾ വീഴുമ്പോൾ വിശദപഠനം
8	22-11-2021 To 27-11-2021	31	ക്ലാസ്സ് പരീക്ഷ 07
		32	നോവൽ സാഹിത്യ ചരിത്രം
		33	ദളിത് നോവലുകൾ
		34	നൂറു സിംഹാസനങ്ങൾ വിശദപഠനം
9	29-11-2021 To 04-12-2021	35	നൂറു സിംഹാസനങ്ങൾ വിശദപഠനം
		36	നൂറു സിംഹാസനങ്ങൾ വിശദപഠനം
		37	നൂറു സിംഹാസനങ്ങൾ വിശദപഠനം
		38	നൂറു സിംഹാസനങ്ങൾ വിശദപഠനം
		39	നൂറു സിംഹാസനങ്ങൾ വിശദപഠനം
10	06-12-2021 To 11-12-2021	40	നൂറു സിംഹാസനങ്ങൾ വിശദപഠനം
		41	നൂറു സിംഹാസനങ്ങൾ വിശദപഠനം
		42	നൂറു സിംഹാസനങ്ങൾ വിശദപഠനം
		43	നൂറു സിംഹാസനങ്ങൾ വിശദപഠനം
		11 December	Second Saturday
11	13-12-2021 To 18-12-2021	44	നൂറു സിംഹാസനങ്ങൾ വിശദപഠനം
		45	നോവൽ നിരൂപണം തയ്യാറാക്കുന്നത് മായി ബന്ധപ്പെട്ട വസ്തുതകൾ
		46	നോവലിന്റെ പശ്ചാത്തലം ഭാഷയും
		47	ക്ലാസ്സ് പരീക്ഷ 08
12	20-12-2021 To 25-12-2021	48	ആദ്യ കാല നോവലുകളുടെ പ്രത്യേകതകൾ
		49	സരസ്വതി വിജയം വിശദപഠനം
		50	സരസ്വതി വിജയം വിശദപഠനം
		51	സരസ്വതി വിജയം വിശദപഠനം
		24 December	Chistmas vaccation
		25 December	Chistmas vaccation
13	27-12-2021 To	27 December	Chistmas vaccation
		28 December	Chistmas vaccation
		29 December	Chistmas vaccation

	01-01-2022	30 December	Chistmas vaccation
		31 December	Chistmas vaccation
		01 January	Chistmas vaccation
14	03-01-2022 To 08-01-2022	52	ക്ലാസ്സ് പരീക്ഷ 09
		53	ആധുനിക നോവലും ഒ വി വിജയനും
		54	ചന്ദ്രനാഥൻ്റെ ഇതിഹാസം വിശദീകരണം
		55	ആദ്യപാഠങ്ങൾ എന്ന അദ്ധ്യായത്തിന് വിശദീകരണം
15	10-01-2022 To 15-01-2022	56	ആദ്യപാഠങ്ങൾ എന്ന അദ്ധ്യായത്തിന് വിശദീകരണം
		57	ആദ്യപാഠങ്ങൾ എന്ന അദ്ധ്യായത്തിന് വിശദീകരണം
		58	ക്ലാസ്സ് പരീക്ഷ 09
		59	കെ ആർ മീരയുടെ സാഹിത്യ ലോകം
16	17-01-2022 To 22-01-2022	60	ആരാച്ചാർ വിശദീകരണം
		61	അദ്ധ്യായം 24 വിശദീകരണം
		62	അദ്ധ്യായം 24 വിശദീകരണം
		63	ക്ലാസ്സ് പരീക്ഷ 10
17	24-01-2022 To 29-01-2022	64	എസ് കെ പൊറ്റക്കാടിൻ്റെ കഥാലോകം
		65	ഒരു തെരുവിൻ്റെ കഥ വിശദീകരണം
		26 January	Republic Day
		66	ഒരു ജ്യോതിഷ കാരൻ്റെ കഥ അദ്ധ്യായം വിശദീകരണം
		67	ഒരു ജ്യോതിഷ കാരൻ്റെ കഥ അദ്ധ്യായം വിശദീകരണം
18	31-01-2022 To 05-02-2022	68	റിവിഷൻ യൂണിറ്റ് 01
		69	റിവിഷൻ യൂണിറ്റ് 02
		70	റിവിഷൻ യൂണിറ്റ് 03
		71	റിവിഷൻ യൂണിറ്റ് 04
		72	പഴയകാല ചോദ്യപേപ്പർ വിശകലനം