

**DON BOSCO ARTS & SCIENCE COLLEGE**  
**ANGADIKADAVU**

*(Affiliated to Kannur University Approved by Government of Kerala)*  
**ANGADIKADAVU P.O., IRITTY, KANNUR – 670706**



**COURSE PLAN**

**BSc MATHEMATICS**

**(2018 – 21)**

**SEMESTER - IV**

**ACADEMIC YEAR - (2019-20)**

## IV Semester BSc Mathematics (2018 - 21)

SL. No.	Name of Subjects with Code	Name of the Teacher	Duty Hours per week
1.	4A06 ENG Readings in Fiction and Drama	Jisha E.	5
2.	4A10 MAL Rachana Vivarthanam	Vineesh T.K.	5
3.	4A010 HIN Natak Aur Upanyas	Rabina V.	
4.	4B04 MAT Elements of Mathematics II	Riya Baby	5
5.	4C04 STA Statistical Inference	Fathimathul Nithasha Beegam I	5
6.	4C04CSC Visual Programming	Sruthi N.	5
	<b>Name of Class Incharge</b>	<b>Riya Baby</b>	

### 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	Jisha E. 4A06ENG	IV sem ScLang ENG\MAT\PHY	Sruthi N. 4C04CSC	Riya Baby 4B04MAT	Fathimathul Nithasha Beegam I 4C04STA
2	Sruthi N. 4C05CSC	Riya Baby 4B04MAT	Jisha E. 4A06ENG	IV sem ScLang ENG\MAT\PHY	Fathimathul Nithasha Beegam I 4C04STA
3	Fathimathul Nithasha Beegam I 4C04STA	IV sem ScLang ENG\MAT\PHY	Jisha E. 4A06ENG	Sruthi N. 4C04CSC	Riya Baby 4B04MAT
4	Riya Baby 4B04MAT	Fathimathul Nithasha Beegam I 4C04STA	Sruthi N. 4C04CSC	Jisha E. 4A06ENG	IV sem ScLang ENG\MAT\PHY
5	IV sem ScLang ENG\MAT\PHY	Jisha E. 4A06ENG	Fathimathul Nithasha Beegam I 4C04STA	Riya Baby 4B04MAT	Sruthi N. 4C05CSC

<b>Subject Code:</b>	<b>4A06 ENG</b>
<b>Subject Name:</b>	<b>Readings in Fiction and Drama</b>
<b>No. of Credits:</b>	<b>4</b>
<b>No. of Contact Hours:</b>	<b>90</b>
<b>Hours per Week:</b>	<b>5</b>
<b>Name of the Teacher:</b>	<b>Jisha E</b>

**Objective: -**

- The student will understand the power of language.
- The student will understand production elements that contribute to the effectiveness of a specific medium.
- The student will understand why certain literary works are considered classics
- The student will identify universal themes prevalent in the literature of all cultures.
- The student will analyze the effectiveness of complex elements of plot, such as setting, major events, problems, conflicts and resolutions.
- The student will understand the relationships between and among elements of literature, including characters, plot, setting, tone, point of view and theme.

**Module –I: Short Fiction (2Hours/Week)**

- |                                 |   |                 |
|---------------------------------|---|-----------------|
| 1. Phantom Luncheon             | : | Saki            |
| 2. Last Leaf                    | : | O. Henry        |
| 3. The Mother of a Traitor      | : | Maxim Gorky     |
| 4. Uncle Podger Hangs a Picture | : | Jerome K Jerome |
| 5. Full Moon Night              | : | Gautam Sengupta |

**Module – II: Drama (3Hours/Week)**

- |  |   |                  |
|--|---|------------------|
| 1. Othello (I&V acts for detailed study) | : | W. Shakespeare   |
| 2. A Marriage Proposal                   | : | Anton Chekhov    |
| 3. The Rising of the Moon                | : | Lady Gregory     |
| 4. Fail Not Our Feast                    | : | Vincent Godefroy |
| 5. Refund                                | : | Fritz Carinthy   |

**Prescribed Textbook**

*Overtures* : Hyderabad:Orient Blackswan



No of Weeks	Dates	Session	Topic
6	01-12-2019 To 05-12-2019		<b>Semester Break</b>
			<b>Semester Break</b>
7	09-12-2019 To 13-12-2019	23	Full Moon Night : Gautam Sengupta
		24	Full Moon Night : Gautam Sengupta
		25	Full Moon Night : Gautam Sengupta
		26	Full Moon Night : Gautam Sengupta
		27	Full Moon Night : Gautam Sengupta
		28	Full Moon Night : Gautam Sengupta
		<b>12 Dec</b>	<b>Arts Day</b>
<b>13 Dec</b>	<b>Arts Day</b>		
8	16-12-2019 To 20-12-2019	29	Othello (I&V acts for detailed study) : W. Shakespeare
		30	Othello (I&V acts for detailed study) : W. Shakespeare
		31	Othello (I&V acts for detailed study) : W. Shakespeare
		32	Othello (I&V acts for detailed study) : W. Shakespeare
		33	Othello (I&V acts for detailed study) : W. Shakespeare
		<b>20 Dec</b>	Othello (I&V acts for detailed study) : W. Shakespeare
9	23-12-2019 To 28-12-2019		<b>Christmas – Holiday</b>
			<b>Christmas – Holiday</b>
10	30-12-2019 To 03-01-2020	34	Othello (I&V acts for detailed study) : W. Shakespeare
		35	Othello (I&V acts for detailed study) : W. Shakespeare
		36	Othello (I&V acts for detailed study) : W. Shakespeare
		<b>02 Jan</b>	<b>Mannam Jayanthi – Holiday</b>
		37	Class Test
11	06-01-2020 To 10-01-2020	<b>06 Jan</b>	<b>First Internal IV Semester UG</b>
			<b>First Internal IV Semester UG</b>
		<b>08 Jan</b>	<b>First Internal IV Semester UG</b>
		38	The Rising of the Moon : Lady Gregor

No of Weeks	Dates	Session	Topic
		39	The Rising of the Moon : Lady Gregor
		40	The Rising of the Moon : Lady Gregor
		41	The Rising of the Moon : Lady Gregor
12	13-01-2020 To 17-01-2020	42	The Rising of the Moon : Lady Gregor
		43	The Rising of the Moon : Lady Gregor
		44	The Rising of the Moon : Lady Gregor
		45	The Rising of the Moon : Lady Gregor
		46	The Rising of the Moon : Lady Gregor
		47	Discussion of question answers
		48	Class Test
13	20-01-2020 To 24-01-2020	49	Seminar Presentation
		50	Seminar Presentation
		51	Seminar Presentation
		52	Seminar Presentation
		53	Seminar Presentation
		54	Seminar Presentation
		55	Seminar Presentation
		56	Seminar Presentation
14	27-01-2020 To 31-01-2020	57	Seminar Presentation
		58	Fail Not Our Feast : Vincent Godefroy
		59	Fail Not Our Feast : Vincent Godefroy
		60	Fail Not Our Feast : Vincent Godefroy
		61	Fail Not Our Feast : Vincent Godefroy
		62	Fail Not Our Feast : Vincent Godefroy
		63	Fail Not Our Feast : Vincent Godefroy
		64	Fail Not Our Feast : Vincent Godefroy
15	03-02-2020 To 07-02-2020	65	Fail Not Our Feast : Vincent Godefroy
		66	Fail Not Our Feast : Vincent Godefroy
		67	Fail Not Our Feast : Vincent Godefroy
		68	Fail Not Our Feast : Vincent Godefroy
		69	Discussion
		70	Class Test
		71	Refund : Frigyes Karinthy
		72	Refund : Frigyes Karinthy
16	10-02-2020 To	73	Refund : Frigyes Karinthy
		74	Refund : Frigyes Karinthy
		75	Refund : Frigyes Karinthy
		76	Refund : Frigyes Karinthy

No of Weeks	Dates	Session	Topic
	<b>14-02-2020</b>	77	Refund : Frigyes Karinthy
		78	Refund : Frigyes Karinthy
		79	Refund : Frigyes Karinthy
		80	Refund : Frigyes Karinthy
<b>17</b>	<b>17-02-2020 To 22-02-2020</b>	81	<b>Revision---Module 1</b>
		82	<b>Revision---Module 1</b>
		83	<b>Revision---Module 1</b>
		84	<b>Revision---Module 1</b>
		<b>21 Feb</b>	<b>Mahasivaratri – Holiday</b>
		85	<b>Revision---Module 1</b>
<b>18</b>	<b>24-02-2020 To 28-02-2020</b>	<b>24 Feb</b>	<b>College Day</b>
		86	<b>Revision—Module 2</b>
		87	<b>Revision—Module 2</b>
		88	<b>Revision—Module 2</b>
		89	<b>Revision—Module 2</b>
		90	<b>Revision—Module 2</b>
<b>19</b>	<b>02-03-2020 To 07-03-2020</b>	<b>02 Mar</b>	<b>Second Internal IV Semester UG</b>
			<b>Second Internal IV Semester UG</b>
			<b>Second Internal IV Semester UG</b>
			<b>Second Internal IV Semester UG</b>
			<b>Second Internal IV Semester UG</b>
		<b>07 Mar</b>	<b>Second Internal IV Semester UG</b>
<b>20</b>	<b>09-03-2020 To 13-03-2020</b>		<b>Study Leave</b>
			<b>Study Leave</b>
<b>21</b>	<b>16-03-2020 To 20-03-2020</b>	<b>16 mar</b>	<b>University Exam IV Semester UG Begin</b>

<b>Subject Code:</b>	<b>4B04 MAT</b>
<b>Subject Name:</b>	<b>Elements of Mathematics II</b>
<b>No. of Credits:</b>	<b>4</b>
<b>No. of Contact Hours:</b>	<b>90</b>
<b>Hours per Week:</b>	<b>5</b>
<b>Name of the Teacher:</b>	<b>Riya Baby</b>

## (Check the following syllabus)

### **Module –I:**

**(25 Hours)** Relations, Types of relations, Partitions, Equivalence relation, Partial ordering relation, Functions, Composition of functions, One to one, Onto and invertible functions, Mathematical functions (except exponential and logarithmic functions), Recursively defined functions. (Sections 3.3, 3.6, 3.8, 3.9, 3.10 and chapter 4 of Text 1 )

### **Module – II:**

**(20 Hours)** Ordered sets, Partially ordered sets and Hasse diagrams, Minimal and maximal elements, First and last elements, Supremum and infimum, Lattices. Bounded, distributive, Complemented lattices. (Chapter 7: Sections 7.2, 7.4, 7.5, 7.7, 7.10, 7.11 of Text 1)

### **Module – III:**

**(25 Hours)** Definition of conic, Parabola-ellipse-hyperbola, Some important results associated with the standard form of parabola-ellipse-hyperbola, General equation of parabola-ellipse-hyperbola, Position of a point with respect to a parabola-ellipse-hyperbola, Equation of tangent and normal at a point on a parabola-ellipse-hyperbola, Equation of chord of contact of a point with respect to a parabola-ellipse-hyperbola, Equation of pair of tangents from a given point, Parametric equation of a parabola-ellipse-hyperbola, Auxiliary circle and Eccentric angle, Rectangular hyperbola, Chord, tangent and normal of rectangular hyperbola, conjugate hyperbola. (Examples and problems after conormal points are not included --Sections 4.1 to 4.9, 5.1 to 5.9 and 6.1 to 6.12 of Text 2) 4.13 of Text 3)

### **Module – IV:**

**(20 Hours)** Rank of a matrix – Elementary transformation, reduction to normal form, row reduced echelon form, computing the inverse of a non singular matrix using elementary row transformation. (Section 4.1 to 4.13 of Text 3)

### **Prescribed Textbook**

1. S. Lipschitz, Set Theory and Related Topics, 2nd Edition, Schaum's Series.
2. T. K. Manicavachagam Pillay and T . Natarajan, Calculus and Co-ordinate Geometry.
- 3 S. Narayanan and Mittal, A Text Book of Matrices, Revised Edition, S. Chand.

### **Books for Reference**

1. P. R. Vital, Analytical Geometry, Trigonometry and Matrices, Pearson Education
2. P.R. Halmos, Naive Set Theory, Springer.
3. E. Kamke, Theory of Sets, Dover Publishers.
4. D. Serre, Matrices, Theory and Applications, Springer.

## TEACHING SCHEDULE

No of Weeks	Dates	Session	Topic
1	29-10-2019 To 01-11-2019	1	Relations
		2	Relations
		3	Relations- Problems
		4	Types of relations
		5	Types of relations
		6	Types of relations-problems
2	04-11-2019 To 08-11-2019	7	Equivalence relation
		8	Equivalence relation
		9	Equivalence relation
		10	Partial ordering relation,
		11	Partial ordering relation
		12	Functions
3	11-11-2019 To 15-11-2019	13	Functions
		14	Composition of functions
		15	Composition of functions
		16	One to one, Onto and invertible functions
		17	One to one, Onto and invertible functions
		18	One to one, Onto and invertible functions
4	18-11-2019 To 23-11-2019	19	Mathematical functions
		19 Nov	<b>Union Inauguration</b>
		20	Mathematical functions
		21	Recursively defined functions
		22	Recursively defined functions
		23 Nov	<b>Sports Day</b>
5	25-11-2019 To 29-11-2019		<b>Semester Break</b>
			<b>Semester Break</b>
6	01-12-2019		<b>Semester Break</b>
			<b>Semester Break</b>

No of Weeks	Dates	Session	Topic
	<b>To 05-12-2019</b>		<b>Semester Break</b>
			<b>Semester Break</b>
<b>7</b>	<b>09-12-2019 To 13-12-2019</b>	23	Recursively defined functions
		24	Exercise problem solving
		25	Test paper
		26	Ordered sets
		27	Ordered sets
		28	Partially ordered sets and Hasse diagrams
		<b>12 Dec</b>	<b>Arts Day</b>
		<b>13 Dec</b>	<b>Arts Day</b>
<b>8</b>	<b>16-12-2019 To 20-12-2019</b>	29	Partially ordered sets and Hasse diagrams
		30	Partially ordered sets and Hasse diagrams
		31	Minimal and maximal elements
		32	First and last elements
		33	First and last elements
		<b>20 Dec</b>	<b>Christmas Celebration</b>
<b>9</b>	<b>23-12-2019 To 28-12-2019</b>		<b>Christmas – Holiday</b>
			<b>Christmas – Holiday</b>
<b>10</b>	<b>30-12-2019 To 03-01-2020</b>	34	<b>Seminar</b>
		35	<b>Group discussion –Problem Solving</b>
		36	Supremum and infimum
		<b>02 Jan</b>	<b>Mannam Jayanthi – Holiday</b>
		37	
<b>11</b>	<b>06-01-2020 To 10-01-2020</b>	<b>06 Jan</b>	<b>First Internal IV Semester UG</b>
			<b>First Internal IV Semester UG</b>
		<b>08 Jan</b>	<b>First Internal IV Semester UG</b>
		38	Supremum and infimum, Lattices.
		39	Lattices
		40	Bounded Lattices

No of Weeks	Dates	Session	Topic
		41	Lattices. Bounded, distributive, Complemented lattices
12	13-01-2020 To 17-01-2020	42	Lattices. Bounded, distributive, Complemented lattices
		43	Group Discussion
		44	Lattices. Bounded, distributive, Complemented lattices
		45	Question paper Problem Solving
		46	Test paper
		47	Chords of contact of tangents from a given point
		48	Chords of contact of tangents from a given point
13	20-01-2020 To 24-01-2020	49	Chords of contact of tangents from a given point
		50	Pair of tangents from a point
		51	Pair of tangents from a point
		52	pole and polar with respect to conic sections
		53	pole and polar with respect to conic sections
		54	pole and polar with respect to conic sections
		55	pole and polar with respect to conic sections
14	27-01-2020 To 31-01-2020	56	conjugate points, conjugate lines
		57	conjugate points, conjugate lines
		58	Equation of a chord in terms of middle point
		59	Equation of a chord in terms of middle point
		60	<b>Group discussion</b>
		61	Parametric representation of points on conics
		62	Parametric representation of points on conics
		63	Asymptotes of hyperbola
15	03-02-2020 To 07-02-2020	64	Asymptotes of hyperbola
		65	<b>Test Paper</b>
		66	Rank of a matrix
		67	Rank of a matrix – Elementary transformation
		68	Rank of a matrix – Elementary transformation
		69	Rank of a matrix – Elementary transformation
		70	Reduction to normal form
		71	Reduction to normal form
16	10-02-2020 To 14-02-2020	72	Row reduced echelon form
		73	Row reduced echelon form
		74	<b>Group discussion – Problem Solving</b>
		75	Computing the inverse of a non singular
		76	Computing the inverse of a non singular
		77	Computing the inverse of a non singular
		78	<b>Seminar</b>

No of Weeks	Dates	Session	Topic
		79	<b>Seminar</b>
		80	Computing the inverse of a non singular matrix using elementary row transformation.
17	17-02-2020 To 22-02-2020	81	Computing the inverse of a non singular matrix using elementary row transformation.
		82	Computing the inverse of a non singular matrix using elementary row transformation.
		83	Computing the inverse of a non singular matrix using elementary row transformation.
		84	Computing the inverse of a non singular matrix using elementary row transformation.
		21 Feb	<b>Mahasivaratri – Holiday</b>
		85	Problem solving
18	24-02-2020 To 28-02-2020	24 Feb	<b>College Day</b>
		86	<b>Test paper</b>
		87	Question Paper discussion
		88	Question Paper discussion
		89	Viva
		90	Viva
19	02-03-2020 To 07-03-2020	02 Mar	<b>Second Internal IV Semester UG</b>
			<b>Second Internal IV Semester UG</b>
			<b>Second Internal IV Semester UG</b>
			<b>Second Internal IV Semester UG</b>
			<b>Second Internal IV Semester UG</b>
		07 Mar	<b>Second Internal IV Semester UG</b>
20	09-03-2020 To 13-03-2020		<b>Study Leave</b>
			<b>Study Leave</b>
21	16-03-2020 To 20-03-2020	16 mar	<b>University Exam IV Semester UG Begin</b>

<b>Subject Code:</b>	<b>4C04 STA</b>
<b>Subject Name:</b>	<b>Statistical Inference</b>
<b>No. of Credits:</b>	<b>3</b>
<b>No. of Contact Hours:</b>	<b>90</b>
<b>Hours per Week:</b>	<b>5</b>
<b>Name of the Teacher:</b>	<b>Fathimathul Nithasha Beegam I</b>

### **Module –I: Sampling Distributions**

Definition, standard error, sampling distribution of mean and variance, chi-square, Student's t and F distributions, the interrelations between t, F and chi-square statistics. **(15 Hrs)**

### **Module – II: Theory of Estimation**

Point estimation, desirable properties of a good estimator, methods of estimation – method of MLE, method of moments. **Interval estimation:** Confidence interval for mean, proportion, variance, difference of means, difference of proportions. **(30 Hrs)**

### **Module – III: Testing of Hypothesis**

Statistical hypothesis, simple and composite hypothesis, Null and alternative hypothesis, types of errors, critical region, size and power of test, most powerful test, Neymann – Pearson Lemma (without proof). **(15 Hours)**

### **Module – IV: Large and small sample tests**

Test for mean, proportion, equality of means, paired t-test, equality of proportions, test for variance and equality of variance, Chi-square test for goodness of fit, test of independence of attributes. **(24 Hours)**

### **Prescribed Textbook**

S. C. Gupta and V.K.Kapoor : Fundamentals of Mathematical Statistics, Sultan Chand and Sons

### **Books for Reference**

1. S.M. Ross : Introductory Statistics, Elsevier
2. Hoog, Tanis and Rao : Probability and Statistical Inference, Pearson
3. Surendran and Saxena : Statistical Inference, Sulthan Chand and Sons

## TEACHING SCHEDULE

No of Weeks	Dates	Session	Topic
1	29-10-2019 To 01-11-2019	1	Introduction
		2	Sampling distribution introduction
		3	Standard error, problems , examples
		4	Sampling distribution of mean
		5	Sampling distribution of mean
		6	Sampling distribution of variance
2	04-11-2019 To 08-11-2019	7	Sampling distribution of variance
		8	Problems of standard normal distribution
		9	Chi square distribution concept
		10	Chisquare mean and variance
		11	Chi square properties ,mgf,
		12	Chi square properties ,mgf,
3	11-11-2019 To 15-11-2019	13	Chi square problems
		14	Unit test(chi square,and sampling distribution)
		15	Unit test(chi square,and sampling distribution)
		16	Students T -Distribution
		17	Students T -Distribution
		18	Mean and variance of T distribution
4	18-11-2019 To 23-11-2019	19	F distribution ,mean and variance
		19 Nov	<b>Union Inauguration</b>
		20	Inter relationship of sampling distribution
		21	Revision
		22	Exam
		23 Nov	<b>Sports Day</b>
5	25-11-2019 To 29-11-2019		<b>Semester Break</b>
			<b>Semester Break</b>
6	01-12-2019		<b>Semester Break</b>

No of Weeks	Dates	Session	Topic
	<b>To 05-12-2019</b>		<b>Semester Break</b>
			<b>Semester Break</b>
<b>7</b>	<b>09-12-2019 To 13-12-2019</b>	23	II – <b>Theory of estimation</b> concept, introduction
		24	Point estimation and interval estimation
		25	Point estimation and interval estimation
		26	Desirable properties of a good estimator
		27	Desirable properties of a good estimator
		28	Unbiasedness
		<b>12 Dec</b>	<b>Arts Day</b>
		<b>13 Dec</b>	<b>Arts Day</b>
<b>8</b>	<b>16-12-2019 To 20-12-2019</b>	29	Consistency, efficiency
		30	Sufficiency, Fisher Neymann Factorisation theorem
		31	Problems related sufficiency, efficiency
		32	Method Of Estimation
		33	Theory of method of estimation
		<b>20 Dec</b>	<b>Christmas Celebration</b>
<b>9</b>	<b>23-12-2019 To 28-12-2019</b>		<b>Christmas – Holiday</b>
			<b>Christmas – Holiday</b>
<b>10</b>	<b>30-12-2019 To 03-01-2020</b>	34	Method of moments, Problems
		35	Method of moments, Problems
		36	Revision
		<b>02 Jan</b>	<b>Mannam Jayanthi – Holiday</b>
		37	<b>Maximum Likelihood</b> estimation
<b>11</b>	<b>06-01-2020 To 10-01-2020</b>	<b>06 Jan</b>	<b>First Internal IV Semester UG</b>
			<b>First Internal IV Semester UG</b>
		<b>08 Jan</b>	<b>First Internal IV Semester UG</b>
		38	Confidence interval for mean
		39	Confidence interval for proportion

No of Weeks	Dates	Session	Topic
		40	Confidence interval for difference of mean
		41	Confidence interval for difference of proportion
12	13-01-2020 To 17-01-2020	42	Confidence interval for variance
		43	Revision
		44	Unit test of second Module, Assignment submission
		45	<b>III -Testing of Hypothesis</b>
		46	Statistical Hypothesis
		47	Simple and composite Hypothesis
		48	Simple and composite Hypothesis
		13	20-01-2020 To 24-01-2020
50	Null and alternative Hypothesis with example		
51	Types of errors		
52	Critical Region		
53	Problems of probability of type 1 and type 2 error		
54	Problems of probability of type 1 and type 2 error		
55	Problems of probability of type 1 and type 2 error		
56	Most powerful test,		
57	Neymann Pearson lemma		
14	27-01-2020 To 31-01-2020	58	Neymann Pearson lemma
		59	Uniform most powerful test
		60	Problems, examples
		61	Problems, examples
		62	Problems, examples
		63	Problems, examples
		64	Revision
		65	Unit test - Third module
15	03-02-2020 To 07-02-2020	66	IV – Large & small sample test
		67	Test for mean
		68	Test for proportion
		69	<b>Problems of test for mean and test for proportion</b>
		70	<b>Problems of test for mean and test for proportion</b>
		71	<b>Problems of test for mean and test for proportion</b>
		72	Paired T test
		73	Paired T test
16	10-02-2020 To 14-02-2020	74	Equality of means, Major problems of equality of means
		75	Equality of means, Major problems of equality of means

No of Weeks	Dates	Session	Topic
		76	Test for variance
		77	Example for test for variance, and theorems
		78	Example for test for variance, and theorems
		79	Test for equality of variance
		80	Chi square test for goodness of fit
17	17-02-2020 To 22-02-2020	81	Chi square test for goodness of fit
		82	Chi square independent of attributes
		83	Problems
		84	Problems
		21 Feb	Mahasivaratri – Holiday
		85	Problems of goodness of fit and it's application
18	24-02-2020 To 28-02-2020	24 Feb	College Day
		86	Revision
		87	Revision
		88	Revision of First & second Module
		89	Revision of Third & Fourth Module
		90	Unit test – IV module
19	02-03-2020 To 07-03-2020	02 Mar	Second Internal IV Semester UG
			Second Internal IV Semester UG
			Second Internal IV Semester UG
			Second Internal IV Semester UG
			Second Internal IV Semester UG
		07 Mar	Second Internal IV Semester UG
20	09-03-2020 To 13-03-2020		Study Leave
			Study Leave
21	16-03-2020 To 20-03-2020	16 mar	University Exam IV Semester UG Begin

<b>Subject Code:</b>	<b>4C04CSC</b>
<b>Subject Name:</b>	<b>Visual Programming</b>
<b>No. of Credits:</b>	<b>2</b>
<b>No. of Contact Hours:</b>	<b>90</b>
<b>Hours per Week:</b>	<b>5</b>
<b>Name of the Teacher:</b>	<b>Sruthi N</b>

### **Module –I:**

SQL functions (Different types of functions), Operators (Arithmetic, Relational, Logical), Sub queries (in detail), Order by clause.

### **Module – II:**

Joins (Different types of join), View, Introduction to sequence, Index and Triggers.

### **Module – III:**

VB Controls: Button, Label, ,Text Box, List Box, Combo Box, Picture Box, Image Box, Check Box, Option Button, Timer, Frame, Scroll Bar, Line and Shape. Designing an application, Using general sub procedures in applications, Code module, Menu-Editor (Note editor).

### **Module – IV:**

Error Types, Debugging VB programs, Debugging strategies, Sequential files, writing and adding text using sequential files. Random access files, writing and reading text using random access files, graphics methods, timer tools, animation techniques.

### **Module – V:**

Database structure and terminology- ADO data control, Assigning tables, Bound data tools, Connection to the Database –Simple database programs. Multiple form visual basic applications, VB multiple document interface (MDI)

### **Prescribed Textbook**

1. Understanding the New SQL, Jim Melton and Alan R. Simon, 1993, Morgan
2. Visual Basic 6, G Cornell, Tata McGraw Hill

### **Books for Reference**

1. Data Base Concept 3rd edition Abraham Silberschatz, Henery f Korth McGraw Hill



No of Weeks	Dates	Session	Topic
6	01-12-2019 To 05-12-2019		Semester Break
			Semester Break
7	09-12-2019 To 13-12-2019	23	Introduction to sequence
		24	Index and Triggers
		25	Index and Triggers
		26	Class test Module2
		27	VB Controls
		28	Button, Label, ,Text Box
		12 Dec	Arts Day
		13 Dec	Arts Day
8	16-12-2019 To 20-12-2019	29	Combo Box, Picture Box
		30	Box, Check Box, Option Button
		31	Timer, Frame, Scroll Bar
		32	Line and Shape
		33	Designing an application
		20 Dec	Christmas Celebration
9	23-12-2019 To 28-12-2019		Christmas – Holiday
			Christmas – Holiday
10	30-12-2019 To 03-01-2020	34	Designing an application
		35	Using general sub procedures in applications
		36	Using general sub procedures in applications
		02 Jan	Mannam Jayanthi – Holiday
		37	Code module
11	06-01-2020 To 10-01-2020	06 Jan	First Internal IV Semester UG
			First Internal IV Semester UG
		08 Jan	First Internal IV Semester UG
		38	Code module

No of Weeks	Dates	Session	Topic
		39	Menu-Editor
		40	Menu-Editor
		41	Class test Module 3
12	13-01-2020 To 17-01-2020	42	Error Types
		43	Debugging VB programs
		44	Debugging strategies
		45	Debugging strategies
		46	Sequential files
		47	Sequential files
		48	Writing and adding text using sequential files
13	20-01-2020 To 24-01-2020	49	Random access files
		50	Random access files
		51	Writing and reading text using random access files,
		52	Writing and reading text using random access files,
		53	Graphics methods
		54	Graphics methods
		55	Timer tools
		56	Timer tools
14	27-01-2020 To 31-01-2020	57	Animation techniques.
		58	Animation techniques.
		59	Animation techniques.
		60	Revision Module 4
		61	Class test Module 4
		62	Database structure and terminology
		63	Database structure and terminology
		64	ADO data control
15	03-02-2020 To 07-02-2020	65	ADO data control
		66	Assigning tables
		67	Assigning tables
		68	Bound data tools
		69	Bound data tools
		70	Connection to the Database –Simple database programs
		71	Connection to the Database –Simple database programs
		72	Multiple form visual basic applications
16	10-02-2020 To	73	Multiple form visual basic applications
		74	VB multiple document interface (MDI)
		75	VB multiple document interface (MDI)
		76	Revision Module 5

No of Weeks	Dates	Session	Topic
	<b>14-02-2020</b>	77	Class test Module 5
		78	Question paper discussion Module 1
		79	Question paper discussion Module 2
		80	Question paper discussion Module 3
<b>17</b>	<b>17-02-2020 To 22-02-2020</b>	81	Question paper discussion Module 4
		82	Question paper discussion Module 5
		83	Class test Module 1
		84	Class test Module 2
		<b>21 Feb</b>	<b>Mahasivaratri – Holiday</b>
		85	Class test Module 3
<b>18</b>	<b>24-02-2020 To 28-02-2020</b>	<b>24 Feb</b>	<b>College Day</b>
		86	Class test Module 4
		87	Class test Module 5
		88	Revision 1,2
		89	Revision 3,4
		90	Revision 5
<b>19</b>	<b>02-03-2020 To 07-03-2020</b>	<b>02 Mar</b>	<b>Second Internal IV Semester UG</b>
			<b>Second Internal IV Semester UG</b>
			<b>Second Internal IV Semester UG</b>
			<b>Second Internal IV Semester UG</b>
			<b>Second Internal IV Semester UG</b>
		<b>07 Mar</b>	<b>Second Internal IV Semester UG</b>
<b>20</b>	<b>09-03-2020 To 13-03-2020</b>		<b>Study Leave</b>
			<b>Study Leave</b>
<b>21</b>	<b>16-03-2020 To 20-03-2020</b>	<b>16 mar</b>	<b>University Exam IV Semester UG Begin</b>