TEACHING PLAN
SBMS COLLEGE, SUALKUCHI
Session: 2019-20

Department:	**Mathematics**	**Semester**	**I**
Course:	**Honours**	**Paper No:**	**MAT-HC-1016**
Credit:	**6**	**Marks:**	**100(80+20)**

Paper : I, Paper Name: Calculus				
Unit	**Course Content**	**Allotted to**	**Hours**	**Month**
I	**Hyperbolic Functions, L'Hospital Rule**	**K.Baishya**	**15Hrs**	**Aug(2-25)**
II	**Reduction Formula, area of surface revolution**	**C .K. Uzir.**	**16 Hrs**	**Aug(16-29)**
III	**Tangent and normal component of acceleration, Keplers law**	**K. Baishya.**	**10 Hrs**	**Aug26-Sept.10**
III	**Triple product, vector functions**	**K. Sarma.**	**10Hrs**	**Aug(1-18)**
IV	**Practical**	**K. Baishya**	**15 Hrs**	**Sept.12-Oct.10**

Session 2019-20

Department:	**Mathematics**	**Semester**	**I**
Course:	**Honours**	**Paper No:**	**MAT-HC-1026**
Credit:	**6**	**Marks:**	**100(80+20)**

Paper : II Paper Name : Algebra				
Unit	**Course Content**	**Allotted to**	**Hours**	**Month**
I	**Polar representation of complex number, De Moiver's theorem etc.**	**K. Baishya**	**15Hrs**	**Sept.(12-28)**
II	**Statement and logic, etc.**	**C.K.Uzir**	**16 Hrs**	**Sept.10-Oct5**
III	**System of linear equations etc.**	**K. Sarma**	**20 Hrs**	**Aug 14-Sept28**

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Department:	Mathematics	Semester	I
Course:	Regular	Paper No:	MAT-RC-1016
Credit:	6	Marks:	100(80+20)

Paper: 1

Paper Name: Calculus

Unit	Course Content	Allotted to	Hours	Month
I	Graphs and logarithmic functions	K. Baishya	8 Hrs	Aug(2-15)
II	Limit and continuity	C .K. Uzir.	6 Hrs	Aug(2-14)
III	Differentiability, Leibnitz Theorem	K. Baishya.	15 Hrs	Aug17-Sept.05
IV	Rolle's theorem	K. Sarma.	20Hrs	Aug16-Sept10
V	Functions of two or more variables, Partial differentiation	K.Baishya	15 Hrs	Sept.06-Oct.10

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Department:	**Mathematics**	**Semester**	**III**
Course:	**Honours**	**Paper No:**	**MAT-HC-3016**
Credit:	**6**	**Marks:**	**100(80+20)**

Paper:1 **Paper Name: Theory of real Functions**					
Unit	**Course Content**	**Allotted to**	**Marks**	**Hours**	**Month**
I	**Cluster point etc**	**C. K. Uzir.**	**15**	**16Hrs**	**Aug(2-30)**
II	**Continuous function etc.**	**C .K. Uzir.**	**20**	**26 Hrs**	**Sept(2-30)**
III	**Differentiability etc.**	**K. Sarma**	**15**	**16 Hrs**	**Aug(2-30)**
IV	**L'Hospital Rule etc.**	**K. Baishya**	**15**	**16Hrs**	**Aug(2-20)**

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Department:	Mathematics	Semester	III
Course:	Honours	Paper No:	MAT-HC-3026
Credit:	6	Marks:	100(80+20)

Paper:II , Paper Name: Group Theory-I				
Unit	Course Content	Allotted to	Hours	Month
I	Symmetries of a square etc.	C. K. Uzir.	12Hrs	Aug(05-30)
II	Cycle notation for permutations etc.	C .K. Uzir.	16 Hrs	Sept(2-15)
II	Lagrange's Theorem etc.	K. Baishya	12 Hrs	Aug 20-Sept.05
III	Group homomorphism etc.	K. Baishya	17Hrs	Sept(06-30)

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Department:	Mathematics	Semester	III
Course:	Honours	Paper No:	MAT-HC-3036
Credit:	6	Marks:	100(80+20)

Paper :III, Paper Name: Analytical Geometry				
Unit	Course Content	Allotted to	Hours	Month
I	Transformation of coordinates, tangent Normal etc.	K.Baishya	25 Hrs	Sept.2-Oct25
II	Plane shortest distance etc,	K. Sarma.	10Hrs	Sept.1-25
II	Sphere cone etc.	C K Uzir	18Hrs	Sept10-Oct. 12

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Department:	**Mathematics**	**Semester**	**III**
Course:	**Regular**	**Paper No:**	**MAT-RC-3016**
Credit:	**6**	**Marks:**	**100(80+20)**

Paper :I Paper Name : Differential Equations				
Unit	**Course Content**	**Allotted to**	**Hours**	**Month**
I	**First order Ordinary Differential Equations**	**K. Baishya**	**25 Hrs**	**Aug2-Sept.10**
II	**Second Order Linear Differential Equations**	**K. Baishya**	**20Hrs**	**Sept11-Oct20**

Session: 2019-2020

Department:	**Mathematics**	**Semester**	**V**
Course:	**Honours**	**Paper No:**	**MAT-HC-5016**
Credit:	**6**	**Marks:**	**100(80+20)**

Paper :I	**Paper Name : Complex Analysis**			
Unit	**Course Content**	**Allotted to**	**Hours**	**Month**
I	**Properties of Complex Numbers etc.**	**K. Baishya**	**08 Hrs.**	**Aug(02-16)**
II	**Analytical functions etc.**	**K. Baishya**	**7 Hrs.**	**Aug(17-26)**
III	**Contours etc.**	**K. Baishya**	**8 Hrs**	**Aug. 27-Sept.08**
IV	**Antiderivatives etc.**	**K.Baishya**	**12 Hrs.**	**Sept09-25**
V	**Practical**	**K. Baishya**	**10 Hrs.**	**Sept26-Oct25**

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Department:	**Mathematics**	**Semester**	**V**
Course:	**Major**	**Paper No:**	**MAT-HC-5026**
Credit:	**6**	**Marks:**	**100(80+20)**

Paper :II, Paper Name : Linear Algebra				
Unit	**Course Content**	**Allotted to**	**Hours**	**Month**
I	**Vector spaces and subspaces etc.**	**C.K.Uzir**	**12 Hrs**	**Aug2-.18**
II	**Eigenvectors and eigenvalues etc**	**C. K. Uzir**	**14Hrs**	**Aug 19-Sept12**
III	**Inner Product etc.**	**C. K. Uzir**	**22Hrs**	**Sept. 13-Oct.18**

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Department:	**Mathematics**	**Semester**	**V**
Course:	**Honours**	**Paper No:**	**MAT-HE-5116**
Credit:	**6**	**Marks:**	**100(80+20)**

Paper : III, Paper Name : Number Theory				
Unit	**Course Content**	**Allotted to**	**Hours**	**Month**
I	**Linear Diophantine equation etc.**	**C .K. Uzir**	**24 Hrs**	**Aug20-Sept.18**
II	**Number Theoretic functions etc.**	**C. K. Uzir**	**25Hrs**	**Sept19-Oct20**

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Department:	Mathematics	Semester	V
Course:	Honours	Paper No:	MAT-HE-5066
Credit:	6	Marks:	100(80+20)

Paper : IV, Paper Name: Programming in C				
Unit	Course Content	Allotted to	Hours	Month
I	Variables, functions etc	K. Baishya	14 Hrs	Aug(2-20)
II	Control Statements etc	K. Sarma.	12Hrs	Aug 2-16
III	Arrays and Subscripted variables etc	K. Sarma	14Hrs	Aug (17-30)
IV	Practical	K. Baishya	14Hrs	Aug21-Oct 15

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Department:	**Mathematics**	**Semester**	**V**
Course:	**Regular**	**Paper No:**	**MAT-RE-5116**
Credit:	**6**	**Marks:**	**100(80+20)**

Paper: I, Paper Name: Number Theory				
Unit	**Course Content**	**Allotted to**	**Hours**	**Month**
I	**Linear Diophantine equation etc**	**C. K. Uzir**	**20 Hrs**	**Aug(2-30)**
II	**Number theoretic functions etc**	**C. K. Uzir**	**25Hrs**	**Sept.1-Oct10**

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Department:	**Mathematics**	**Semester**	**II**
Course:	**Honours**	**Paper No:**	**MAT-HC-2016**
Credit:	**6**	**Marks:**	**100(80+20)**

Paper:I, Paper Name: Real Analysis				
Unit	**Course Content**	**Allotted to**	**Hours**	**Month**
I	**Algebraic and order properties etc**	**C.K Uzir**	**15Hrs**	**Feb.(2-18)**
II	**Real sequences etc.**	**K. Sarma**	**18 Hrs**	**Feb.(2- 28)**
III	**Infinite series etc**	**K. Baishya**	**20 Hrs**	**Feb.(1-28)**

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Department:	**Mathematics**	**Semester**	**II**
Course:	**Honours**	**Paper No:**	**MAT-HC-2026**
Credit:	**6**	**Marks:**	**100(80+20)**

Paper: II Paper Name : Differential Equations				
Unit	**Course Content**	**Allotted to**	**Hours**	**Month**
I	**Origin of ordinary differential equation and mathematical model**	**K.Baishya**	**18Hrs**	**Feb.(2-28)**
II	**Introduction to Compartmental model etc**	**K.Baishya**	**15 Hrs**	**March 1-18**
III	**Homogenous Equations etc**	**K.Baishya**	**16 Hrs**	**March19-April8**

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Department:	**Mathematics**	**Semester**	**II**
Course:	**Regular**	**Paper No:**	**MAT-RC-2016**
Credit:	**6**	**Marks:**	**100(80+20)**

Paper: I, Paper Name: Algebra				
Unit	**Course Content**	**Allotted to**	**Hours**	**Month**
I	**Theory of Equations**	**K. Sarma**	**20Hrs**	**Feb.(2-28)**
II	**Matrices**	**C.K. Uzir**	**20Hrs**	**Feb.(2-28)**
III	**Groups, Rings**	**C.K. Uzir**	**20 Hrs**	**March(01-30)**

Session: 2019-20

Department:	**Mathematics**	**Semester**	**IV**
Course:	**Major**	**Paper No:**	**MAT-HC-4016**
Credit:	**6**	**Marks:**	**100(80+20)**

Paper :I, Paper Name: Multivariate Calculus				
Unit	**Course Content**	**Allotted to**	**Hours**	**Month**
I	**Function of several variables, etc.**	**K. Baishya**	**18 Hrs**	**Feb.(2-28)**
II	**Extrema of functions of two variables**	**K. Baishya**	**16 Hrs**	**March 1-22**
III	**Double Integration etc**	**K Baishya**	**12 Hrs**	**Mar.23-April13**
IV	**Line Integral etc**	**K. Baishya**	**15 Hrs**	**April(14-30)**

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Department:	**Mathematics**	**Semester**	**IV**
Course:	**Major**	**Paper No:**	**MAT-HC-4026**
Credit:	**6**	**Marks:**	**100(80+20)**

Paper:II, Paper Name: Numerical Methods				
Unit	**Course Content**	**Allotted to**	**Hours**	**Month**
I	**Algorithms etc.**	**K. Sarma**	**20Hrs**	**Feb.02-28**
II	**Interpolation formula**	**K. Sarma**	**10Hrs**	**March 1-15**
III	**Numerical Differentation**	**K.Sarma**	**10Hrs**	**March13-April08**
IV	**Practical**	**K. Baishya**	**10 Hrs**	**March15-April 14**

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Department:	**Mathematics**	**Semester**	**IV**
Course:	**Honours**	**Paper No:**	**MAT-HC-4036**
Credit:	**6**	**Marks:**	**100(80+20)**

Paper: III, Paper Name : Ring Theory				
Unit	**Course Content**	**Allotted to**	**Hours**	**Month**
I	**Definition and examples of ring etc**	**C. K. Uzir**	**20Hrs**	**Feb.(2-28)**
II	**Polynomial ring etc**	**C.K. Uzir**	**20Hrs**	**March01-April05**

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Department:	**Mathematics**	**Semester**	**IV**
Course:	**Regular**	**Paper No:**	**MAT-RC-4016**
Credit:	**6**	**Marks:**	**100(80+20)**

Paper: I, Paper Name: Real Analysis				
Unit	**Course Content**	**Allotted to**	**Hours**	**Month**
I	**Order completeness of Real Numbers etc.**	**C.K.Uzir**	**20Hrs**	**Feb 2- March 12**
II	**Sequences, Leibnitz Test, Conditional convergence etc**	**K Baishya**	**25Hrs**	**Feb 5-March 24**

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Department:	**Mathematics**	**Semester**	**VI**
Course:	**Honours**	**Paper No:**	**M-6016**
Credit:	**6**	**Marks:**	**100(80+20)**

Paper :I ,	**Paper Name: Riemann Integration and Metric spaces**			
I	**Riemann Integration, Gamma functions etc**	**K. Sarma**	**20 Hrs**	**Feb(02-28)**
II	**Metric Spaces etc.**	**K. Srama**	**15 Hrs**	**Mar(01-18)**
III	**Continuous mappings etc**	**K. Sarma**	**17 Hrs**	**Mar.19- April04**

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Department:	**Mathematics**	**Semester**	**VI**
Course:	**Honours**	**Paper No:**	**MAT-HC-6026**
Credit:	**6**	**Marks:**	**100(80+20)**

Paper :II, Paper Name: Partial Differential Equations				
Unit	**Course Content**	**Allotted to**	**Hours**	**Month**
I	**Introduction , Classification of first order PDE etc**	**K. Baishya**	**18 Hrs**	**Feb (2-25)**
II	**Canonical form etc**	**K. Baishya**	**12 Hrs**	**Feb 25- Mar.12**
III	**The Vibrating string etc**	**K Baishya**	**12Hrs**	**March13-April02**
IV	**Reduction to Canonical form**	**K. Baishya**	**08Hrs**	**Apr.(03-12)**
V	**Practical**	**K. Baishya**	**10 Hrs**	**April(12-30)**

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Department:	**Mathematics**	**Semester**	**VI**
Course:	**Honours**	**Paper No:**	**MAT-HE-6426**
Credit:	**6**	**Marks:**	**100(80+20)**

Paper :III, Paper Name: Group Theory II				
Unit	**Course Content**	**Allotted to**	**Hours**	**Month**
I	**Isomorphism etc**	**C.K. Uzir**	**12 Hrs**	**Feb (2-14)**
II	**Normal subgroups, etc**	**C.K. Uzir**	**12 Hrs**	**Feb (15-28)**
III	**Conjugacy classes etc**	**C.K. Uzir**	**12Hrs**	**March10-April 5**
IV	**Finite simple group etc.**	**C.K. Uzir**	**12Hrs**	**April(6-13)**

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Department:	Mathematics	Semester	VI
Course:	Honours	Paper No:	MAT-HE-6086 (Project Paper)
Credit:	6	Marks:	100

PROJECT

Unit	Course Content	Allotted to (Student Name)	Marks
I	A Study of Divisibility theory	K.Baishya (Abul Hussain)	100
II	Some Constants in Mathematics	C.K.Uzir(Dhiman Barman)	100
III	Fundamental Theorem of Homomorphism	K. Baishya (Jayashri Nath)	100
IV	Representation of Real Numbers and Operations	K Baishya (Litusthmita Talukdar)	100
V	Graphs and its Representations	C. K. Uzir (Manash Pratim Moral)	100
VI	A Study Of Sub graphs and Complements	C.K.Uzir (Mostak Ahmed)	100
VII	Fundamental Theorem of Homomorphism	K. Baishya (Pallabi Deka)	100
VIII	A Study of Divisibility theory	K. Baishya (Samedul Hoque Choudhury)	100
IX	Some Constants in Mathematics	K. Baishya(Sawal Krishna Das)	100
X	Representation of Real Numbers and Operations	K. Baishya (Semina Ahmed)	100

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Department:	**Mathematics**	**Semester**	**VI**
Course:	**Regular**	**Paper No:**	**MAT-RE-6116**
Credit:	**6**	**Marks:**	**100(80+20)**

Paper : I Paper Name: Numerical Analysis				
Unit	**Course Content**	**Allotted to**	**Hours**	**Month**
I	**Gaussian elimination method etc**	**C.K Uzir**	**12 Hrs**	**Feb (2-20)**
I	**Gregory-Newton forward and backward interpolation formula etc.**	**K. Baishya**	**12 Hrs**	**Feb(04-20)**
II	**Numerical Differentiation etc**	**K Sarma**	**10 Hrs**	**Feb(06-22)**
II	**Numerical Integration etc**	**C. K. Uzir**	**10 Hrs**	**Feb20-Mar.09**
II	**Ordinary Differential Equation: Euler's Method etc**	**K Baishya**	**12 Hrs**	**Feb 22-Mar15**