

**Polba Mahavidyalaya**  
**Departmental Lesson Plan 2023-2024**

Name of the Department: Mathematics

Name of the Programme: B.Sc. (General under CBCS and 3 yr. Major & Minor under CCFUP)

Name of the Course: Mathematics (General under CBCS and 3 yr. Major & Minor under CCFUP)

Period of the Lesson Plan: 1st July 2023 – 30th June 2024

**ODD SEMESTER**

Academic Period	Class	Paper	Topic to be covered	No. of lectures	Name of the teacher	Date of Internal Assessment
JULY' 2023 to DEC' 2024	SEM- I	MATH1011	Calculus, Geometry & Vector Calculus	60	Dr. Amrita Das (45) Mr. Palash Sadhu (15)	3rd week of Dec. 2023
		MATH1021	Calculus, Geometry & Vector Calculus	60	Dr. Amrita Das (45) Mr. Palash Sadhu (15)	
		MATH1031	Trigonometry & Coordinate Geometry	45	Dr. Amrita Das (20) Mr. Palash Sadhu (15)	
	SEM-III	BMG3CC1C	Introduction of sets, Suprema, infima and some examples, Bolzano Weierstrass theorem and some application	15	Dr. Amrita Das (10 L) Mr. Palash Sadhu (05 L)	2nd week of Dec. 2023
			Sequence, some theorem and some examples	15	Dr. Amrita Das	
			Series of numbers, properties, examples	15	Dr. Amrita Das	
			Sequences and series of functions	15	Mr. Palash Sadhu	
		BMG3SEC11	Introduction, Proposition, Truth table, etc.; Propositional equivalence, Sets, Subsets, etc.	25	Dr. Amrita Das	
			Difference and symmetric difference etc.; Set identities, Relation, etc.	15	Mr. Palash Sadhu	
	SEM-V	BMG5DSE1A3	Vector space, subspaces, examples, Basis, dimension etc.	20	Mr. Palash Sadhu	1st week of Dec.2023
			Linear transformations, Algebra of Linear Transformation, etc.	15	Dr. Amrita Das	
			Dual space, dual basis, Eigenvalue, eigenvectors	15	Dr. Amrita Das	
			Isomorphism theorems, Invertibility and isomorphism	10	Dr. Amrita Das	

**EVEN SEMESTER**

Academic Period	Class	Paper	Topic to be covered	No of lectures	Name of the teacher	Date of Internal Assessment	
JAN' 24 to JUNE' 24	SEM-II	BMG2CC1B	1 <sup>st</sup> order Differential equation, I.F., etc.	10	Dr. Amrita Das	3rd week of May, 2024	
			Higher order differential equations etc.	10	Dr. Amrita Das		
			Linear homogeneous diff. eqn. etc.	16	Mr. Palash Sadhu		
			Non linear P.D.E., Lagrange's method etc.	24	Dr. Amrita Das		
	SEM-IV	BMG4CC1D	Group, properties and examples	12	Dr. Amrita Das	2nd week of May, 2024	
			Subgroup, cyclic subgroup, normal subgroup etc.	12	Dr. Amrita Das		
			Rings, properties and examples etc.	12	Dr. Amrita Das		
			Fields, properties and examples etc.	12	Mr. Palash Sadhu		
			BMG4SEC21	Differentiation and partial differentiation of a vector function, Derivative of sum, cross product and cross product of two vectors, Gradient, Divergence, Curl.	40	Dr. Amrita Das	
	SEM-VI	BMG6DSE1B3	Linear programming problem, graphical method etc.	10	Mr. Palash Sadhu	1st week of May,2024	
			Convex sets, properties etc.	12	Dr. Amrita Das		
			Simplex method etc.	13	Dr. Amrita Das		
			Duality theory etc.	12	Mr. Palash Sadhu		