# Polba Mahavidyalaya Departmental Lesson Plan 2022-2023

Name of the Department: Mathematics

Name of the Programme: B.Sc. (General)

Name of the Course: Mathematics

Period of the Lesson Plan: 2<sup>nd</sup> July 2022 – 30<sup>th</sup> June 2023

#### **ODD SEMESTER**

Academic Period	Class	Paper	Topic to be covered	No of lectures	Name of the teacher	Date of Internal Assessment	
JULY' 2022 to JAN' 2023	SEM- I	BMG1CC1A	Limit and its examples, continuity, derivative, successive derivative, partial derivative etc.	20	Mr. Palash Sadhu		
			Curvature, polar coordinates, Tangent, normal, asymptotes, etc.	15	Dr. Amrita Das	1 <sup>st</sup> week of December, 2022	
			Rolle's theorem, Mean value theorems, etc. up to Maxima and Minima, intermediate forms.	25	Dr. Amrita Das		
	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)		
			Sequence, some theorem and some examples	15	Dr. Amrita Das	3rd week of Dec. 2022	
			Series of numbers, properties, examples	15	Dr. Amrita Das		
			Sequences and series of functions	15	Mr. Palash Sadhu		
	SEM-V		Vector space, subspaces, examples, Basis, dimension etc.	20	Mr. Palash Sadhu		
		BMG5DSE1A3	Linear transformations, Algebra of Linear Transformation, etc.	15	Dr. Amrita Das	2 <sup>nd</sup> week of Dec.	
		BNIGSDSETAS	Dual space, dual basis, Eigenvalue, eigenvectors	15	Dr. Amrita Das	2022	
			Isomorphism theorems, Invertibility and isomorphism	10	Mr. Palash Sadhu		
		BMG5SEC31	Sample space, probability axioms, up to mathematical expectations and moment generating function of continuous and discrete distributions, etc.	20	Dr. Amrita Das	2 <sup>nd</sup> week of Dec. 2022	
			Joint cumulative distribution function and its properties, up to independent random variables, etc.	20	Dr. Amrita Das		

## **EVEN SEMESTER**

Academic	Class	Paper	Topic to be covered N		Name of the teacher	Date of Internal	
Period				lectures		Assessment	
FEB' 23 to JUNE' 23	SEM-II	BMG2CC1B	1st order Differential equation, I.F., etc.	10	Dr. Amrita Das		
			Higher order differential equations etc.	10	Dr. Amrita Das	1st week of May,	
			Linear homogeneous diff. eqn. etc.	16	Mr. Palash Sadhu	2023	
			Non linear P.D.E., Lagrange's method etc.	24	Dr. Amrita Das	]	
	SEM-IV	BMG4CC1D	Group, properties and examples	12	Dr. Amrita Das		
			Subgroup, cyclic subgroup, normal subgroup etc.	12	Dr. Amrita Das	1st week of May,	
			Rings, properties and examples etc.	12	Dr. Amrita Das	2023	
			Fields, properties and examples etc.	12	Mr. Palash Sadhu		
	SEM-VI	<b>I</b>	Linear programming problem, graphical method etc.	10	Mr. Palash Sadhu		
		BMG6DSE1B3	Convex sets, properties etc.	12	Dr. Amrita Das	1st week of May,	
		DMG0DSE1B3	Simplex method etc.	13	Dr. Amrita Das	2023	
			Duality theory etc.	12	Mr. Palash Sadhu		
		BMG6SEC42	Transportation and assignment problems Game theory	25 15	Dr. Amrita Das Dr. Amrita Das	1st week of May,2023	

# POLBA MAHAVIDYALAYA

## **Implementation of Departmental Lesson Plan 2022-2023**

Name of the Department: Mathematics

Name of the Programme: B.Sc. (General)

Name of the Course: Mathematics

Period of the Lesson Plan:  $2^{nd}$  July  $2022-30^{th}$  June 2023

#### **ODD SEMESTER**

Academic	Class	Paper	Topic covered	Topic not covered	Reason for not covered	Date of	Remarks
Period						Internal Assessment	
July' 22 to Jan' 23	SEM-I	BMG1CC1A	Limit and its examples, continuity, derivative, successive derivative, partial derivative, etc. Curvature, polar coordinates, etc. Tangent, normal, asymptotes, etc. Mean value theorems, etc.	N/A	N/A	17/12/2022	
	SEM-III	BMG3CC1C	N/A	Introduction of sets, Suprema, infima and some examples, Bolzano Weierstrass theorem and some application Sequence, some theorem and some examples Series of numbers, properties, examples Sequences and series of functions	No Student	N/A	
		BMG5DSE1A3	N/A	Vector space, subspaces, examples Linear transformations Dual space, dual basis Isomorphism theorems	No Student	N/A	
	SEM-V	BMG5SEC31	N/A	Sample space, probability axioms, up to mathematical expectations and moment generating function of continuous and discrete distributions, etc.	No Student	N/A	
				Joint cumulative distribution function and its properties, up to independent random variables, etc.		N/A	

## **EVEN SEMESTER**

Academic Quarter	Class	Paper	Topic covered	Topic not covered	Reason for not covered	Date of Internal	Remarks
Feb' 23 to June' 23	SEM-II	BMG2CC1B	1st order Differential equation, I.F., etc. Higher order differential equations etc. Linear homogeneous diff. eqn.etc. Non linear P.D.E., Lagrange's method etc.	N/A	N/A	31/05/2023	
	SEM-IV	BMG4CC1D	N/A	Group, properties and examples Subgroup, cyclic subgroup, normal subgroup etc. Rings, properties and examples etc. Fields, properties and examples etc.	No Student	N/A	
	SEM-VI	BMG6DSE1B3	N/A	Linear programming problem, graphical method etc.  Convex sets, properties etc.  Simplex method etc.  Duality theory etc.	No Student  N/A		
		BMG6SEC42	N/A	Transportation and assignment problems Game theory		N/A	

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