

**Polba Mahavidyalaya**  
**Departmental Lesson Plan 2021-2022**

Name of the Department: Mathematics

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

Name of the Course: Mathematics

Period of the Lesson Plan: 1<sup>st</sup> July 2021 – 30<sup>th</sup> June 2022

**ODD SEMESTER**

Academic Period	Class	Paper	Topic to be covered	No of lectures	Name of the teacher	Date of Internal Assessment
JULY' 2021 to JAN' 2022	SEM- I	BMG1CC1A	Limit and its examples, continuity, derivative, successive derivative, partial derivative etc.	20	Mr. Palash Sadhu	1 <sup>st</sup> week of December, 2021
			Curvature, polar coordinates, Tangent, normal, asymptotes, etc.	15	Dr. Amrita Das	
			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)	3 <sup>rd</sup> week of Dec. 2021
			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	
	SEM-V	BMG5DSE1A1	R <sub>1</sub> , R <sub>2</sub> , R <sub>3</sub> as vector space over R, Standard basis, etc.	10	Mr. Palash Sadhu	2 <sup>nd</sup> week of Dec. 2021
			Interpretation of Eigenvalue and eigenvector, Eigenspace as invariant subspace, etc.	15	Mr. Palash Sadhu	
			Types and Rank of matrix, etc.	15	Dr. Amrita Das	
Matrices in diagonal form, Sol. of system of linear eq. using matrices, etc.			20	Dr. Amrita Das		
BMG5SEC33		Application of differential equations, the vibration of a mass on a spring, Mixture Problem, Free damped motion, Forced Motion, Resonance phenomena, etc. Application to Traffic flow, Vibrating string, Vibrating membrane, etc.	40	Dr. Amrita Das	2 <sup>nd</sup> week of Dec.2021	

**EVEN SEMESTER**

Academic Period	Class	Paper	Topic to be covered	No of lectures	Name of the teacher	Date of Internal Assessment
FEB' 22 to JUNE' 22	SEM-II	BMG2CC1B	1 <sup>st</sup> order Differential equation, I.F., etc.	10	Dr. Amrita Das	1st week of May, 2022
			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	1st week of May, 2022
			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	
	SEM-VI	BMG6DSE1B3	Linear programming problem, graphical method etc.	10	Mr. Palash Sadhu	1st week of May, 2022
			Convex sets, properties etc.	12	Dr. Amrita Das	
			Simplex method etc.	13	Dr. Amrita Das	
		BMG6SEC42	Duality theory etc.	12	Mr. Palash Sadhu	1st week of May, 2022
			Transportation and assignment problems	25	Dr. Amrita Das	
Game theory	15	Dr. Amrita Das				

**POLBA MAHAVIDYALAYA**  
**Implementation of Departmental Lesson Plan 2021-2022**

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**ODD SEMESTER**

Academic Period	Class	Paper	Topic covered	Topic not covered	Reason for not covered	Date of Internal Assessment	Remarks	
July' 21 to Jan' 22	SEM-I	BMG1CC1A	N/A	Limi and its examples, continuity derivative, successive derivative, artial derivative, etc. Curvature, polar coordinates, etc. Tangent, normal, asymptotes, etc. Mean value theorems, etc.	No Student	N/A		
	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		
	SEM-V	BMG5DSE1A1	R1, R2, R3 as vector space over R, Standard basis, etc.	N/A	N/A	N/A	01/12/21	
		BMG5SEC33	Application of differential equations, the vibration of a mass on a spring, Mixture Problem, Free damped motion, Forced Motion, Resonance phenomena, etc. Application to Trafic flow, Vibrating string, Vibrating membrane, etc.	N/A	N/A	N/A	03/12/21	

**EVEN SEMESTER**

Academic Quarter	Class	Paper	Topic covered	Topic not covered	Reason for not covered	Date of Internal Assessment	Remarks	
Feb' 22 to June' 22	SEM-II	BMG2CC1B	N/A	1 <sup>st</sup> order Differential equation, I.F., etc.	No Student	N/A		
				Higher order differential equations etc.				
				Linear homogeneous diff. eqn. etc.				
				Non linear P.D.E., Lagrange's method etc.				
	SEM-IV	BMG4CC1D	N/A		Group, properties and examples	No Student	N/A	
					Subgroup, cyclic subgroup, normal subgroup etc.			
					Rings, properties and examples etc.			
					Fields, properties and examples etc.			
	SEM-VI	BMG6DSE1B3	Linear programming problem, graphical method etc. Convex sets, properties etc. Simplex method etc. Duality theory etc.	N/A	N/A	12/05/2022		
		BMG6SEC42	Transportation and assignment problems Game theory	N/A	N/A	13/05/2022		

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