# POLBA MAHAVIDYALAYA Department Lesson Plan 2018-2019

Name of the department :Department of Physics Name of the prgramme :B.Sc(General) Name of the Course (Subject) :Physics Period of the Lesson Plan : JULY 2018 TO JUNE 2019

### **ODD SEMESTER**

Academic Period	Class	Paper	Topic to be covered		Name of the Teacher	Date of Internal Assessment	
July 18 to Feb.'19			Conservation of momentum,work and energy conservation,motion of rockets, Rotationalmotion, Newton's law ofGravitation, Kepler's laws,Satellite in circular orbit andapplications. Geosynchronous orbits, Weightlessness	19	Sibaji Das	3rd week of Dec.2018	
			Oscillation, Elasticity, Special theory of relativity	21	Sibaji Das	-	
			Vectors, Ordinary Differential Equations, Laws of Motion	20	Sibaji Das		
	SEM-III	GCC-1C/ GE3	Kinetic theory of Gases, derivation of Maxwell's velocity distribution law, mean free path, Thermodynamic potentials, Clausius-Clapeyron equation	20	Sibaji Das	2 <sup>nd</sup> week of Dec. 2018	
			Theory of radiation, Planck's law, Rayleigh-Jeans law, Statistical mechanics	18	Sibaji Das		
			Laws of thermodynamics, Carnot's cycle, various thermodynamical processes	22	Sibaji Das		
		SEC1	Geothermal energy, Wind energy harvesting, Ocean energy	10	Sibaji Das	1	
			Fossil fuels and Alternate Sources of energy, Solar energy	9	Sibaji Das		
			Hydro energy, Piezoelectric energy harvesting, Electromagnetic Energy		Sibaji Das		

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Name of the Course (Subject): Physics Period of the Lesson Plan: JULY 2018 TO JUNE 2019

### **EVEN SEMESTER**

Academic Period	Class	Paper	Topic to be covered	No. of lectures	Name of the Teacher	Date of Internal Assessment
Mar'19 to July'19	SEM-II	M-II GCC-1B/ GE2	Magnetism: Biot-Savart's law and application, Magnetic properties of materials, Electromagnetic induction	16	Sibaji Das	3 <sup>rd</sup> week of May,2019
			Electrostatics: Gauss's theorem, application, electric potential, Capacitance of different conductor, Gauss's theorem in dielectrics	22	Sibaji Das	
			Maxwell's equation, EM wave propagation, Vector analysis:review of vector algebra, divergence, curl and their significances	22	Sibaji Das	
	SEM-IV	GCC-1D/ GE4	Superposition of collinear harmonic oscillations, superposition of 2 perpendicular harmonic oscillations, wave motion general, sound	22	Sibaji Das	2 <sup>nd</sup> week of May, 2019
			Diffraction, Fluids	19	Sibaji Das	
			Wave optics, Interference by division of wave front, Michelson's interferometer, Polarization	19	Sibaji Das	
		SEC 2	Understand the basic idea about atmosphere and weather	10	Sibaji Das	
			Determine how to produce wind also measuring its speed and direction and also understand about the humidity clouds and rainfall.	16	Sibaji Das	
			Describe the global wind system, thunderstorm and tropical cyclones also define the climate, its change due to global warming and pollution.	14	Sibaji Das	

### POLBA MAHAVIDYALAYA

## Implementation of Department Lesson Plan 2018-2019

Name of the department :Department of Physics

Name of the prgramme: B.Sc(General)
Name of the Course (Subject): Physics
Period of the Lesson Plan: JULY 2018 TO JUNE 2019

### **ODD SEMESTER**

Academic Period	Class	Paper	Topic covered	Topic Not covered	Reason for Not covered	Date of Internal Assessment	Remarks
Aug'18 to Feb.'19	SEM-I	GCC-1A/ GE1	Conservation of momentum,work and energy conservation,motion of rockets, Rotationalmotion, Newton's law ofGravitation, Kepler's laws,Satellite in circular orbit andapplications. Geosynchronous orbits, Weightlessness	All completed		05.12.2018	
			Oscillation, Elasticity, Special theory of relativity	All completed			
			Vectors, Ordinary Differential Equations, Laws of Motion	All completed			
	SEM-III	GCC-1C/ GE3	Kinetic theory of Gases, derivation of Maxwell's velocity distribution law, mean free path, Thermodynamic potentials, Clausius-Clapeyron equation	All completed		05.12.2018	
			Theory of radiation, Planck's law, Rayleigh-Jeans law, Statistical mechanics	All completed			
			Laws of thermodynamics, Carnot's cycle, various thermodynamical processes	All completed			
		SEC1		Geothermal energy, Wind energy harvesting, Ocean energy Hydro energy, Piezoelectric energy harvesting, Electromagnetic Energy Fossil fuels and Alternate Sources of energy, Solar energy	No student		

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### **EVEN SEMESTER**

Academic Period	Class	Paper	Topic covered	Topic Not covered	Reason for Not covered	Date of Internal Assessment	Remarks
Mar'19 to July'19	SEM-II	GCC- 1B/ GE2	Magnetism: Biot-Savart's law and application, Magnetic properties of materials, Electromagnetic induction	All completed		14.05.2019	
			Electrostatics: Gauss's theorem, application, electric potential, Capacitance of different conductor, Gauss's theorem in dielectrics	All completed			
			Maxwell's equation, EM wave propagation, Vector analysis:review of vector algebra, divergence, curl and their significances	All completed			
	SEM-IV	GCC- 1D/ GE4	Superposition of collinear harmonic oscillations, superposition of 2 perpendicular harmonic oscillations, wave motion general, sound	All completed		08.05.2019	
			Diffraction, Fluids	All completed			
			Wave optics, Interference by division of wave front, Michelson's interferometer, Polarization	All completed			
		SEC-4		Generators and transformers, electrical motors	No student		
				Solid state devices, electrical protection, electrical wiring	No student		
				Basic electricity principle,understanding electrical circuits,electrical drawing and symbols	No student		

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Academic Period	Class	Paper	Topic to be covered	No. of lectures	Name of the Teacher	Date of Test Evaluation
JULY'18	Part III	PAPER-IVA	1. LASESR	4	Sibaji Das	11.03.2019
TO JUNE'19		(Theory Portion)	2 MAXWELL EQUATIONS:	10	Sibaji Das	
JUNE 19			3. FIELD EFFECT TRANSISTOR	7	Sibaji Das	
			4. OSCILLATORS	5	Sibaji Das	
			5. BONDING IN SOLIDS	5	Sibaji Das	
			6. DIELECTRICS	5	Sibaji Das	
			7 GENERATORS & MOTORS	4	Sibaji Das	
			8. Building Acoustics	5	Sibaji Das	
			9. DIGITAL ELECTRONICS	5	Sibaji Das	
			10. TRANSISTOR BIASING :	8	Sibaji Das	
			11.Principles of Communications:	12	Sibaji Das	
			12. COMPUTER FUNDAMENTAL :	5	Sibaji Das	

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Name of the Course (Subject) :Physics
Period of the Lesson Plan : JULY 2018 TO JUNE 2019

Academic Period	Class	Paper	Topic covered	Topic not covered	Reason for Not covered	Date of Internal Assessment	Remarks					
JULY'18	Part III	PAPER-		1. LASESR	No Student							
TO JUNE'19		IVA (Theory		2 MAXWELL EQUATIONS:	No Student							
		Portion)		3. FIELD EFFECT TRANSISTOR	No Student							
				4. OSCILLATORS	No Student	1						
				5. BONDING IN SOLIDS	No Student							
				6. DIELECTRICS	No Student	1						
									7 GENERATORS & MOTORS	No Student		
				8. Building Acoustics	No Student	]						
						9. DIGITAL ELECTRONICS	No Student					
					10. TRANSISTOR BIASING :	No Student	-					
				11.Principles of Communications:	No Student	-						
				12. COMPUTER FUNDAMENTAL :	No Student							