Sub: PHYSICS.

Prepared by: Biswabandita Barik.

Sr. NO	Topic —	No of period taken.	
01	UNIT-01		
	Physical quantity and classification as derived and fundamental physical quantity.	01	B. Barik
02	Definition of dimension and dimension formula of different physical quantity.	01	B. Barik
03.	Principle of homogeneity. [checking dimentional Correctness]	01	B. Barik
	UNIT-02		
04	Scalar and Vectors quantities. Types of vector. Examples.	01	B. Barik
05	Triangle and parallelogram law of vector addition. Numericals discussion.	01	B. Barik
06	Scalar and vector product.	01	B. Barik
07	Assignment - 01 and Numericals discussion.	01	B. Barik
	UNIT-03		
08	Concept of rest and motion. Discussion about speed, velocity, acceleration and force.	01	B. Barik
09	Explanation about Circular-motion.	01	B. Barik
10	Newton's laws of motion and Motion under gravity.	01	B. Barik

Sr. No.			
11	Projectile - Motion. [projectile fired at an angle θ with horizontal].	01	B. Barik
	UNIT-04		
12	Discussion about Work. Simple numerical discussion.	01	B. Barik
13	Explanation of friction. Types of friction [static and dynamic]	01	B. Barik
14	Laws of limiting friction. Concept of Co-efficient of friction, angle of friction and angle of repose.	01	B. Barik
15	Methods to reduce friction. Numerical discussion.	01	B. Barik
	UNIT-05		
16	Newton's laws of Gravitation Conept of Universal - gravitational Constant. (G)	01	B. Barik
17	Acceleration due to gravity ($\vec{g}$) Defenation and Explanation about mass and weight.	01	B. Barik
18	Variation of g with respect to altitude and depth.	01	B. Barik
19	Kepler's laws of planetary motion.	01	B. Barik

20	UNIT-VI Concept of Simple harmonic-Motion. Discussion about displacement, velocity and accelaration.	01	B. Barik
21	Transverse and longitudinal Wave and Examples.	01	B. Barik
22	Different wave parameter	01	B. Barik
23	Ultrasonic wave.	01	
	UNIT-VII		
24	Concept of heat and temprature.	01	B. Barik
25	Specific heat and latent heat.	01	B. Barik
26	Numericals discussion.	01	
27	Thermal Expansion in Solid. 1-D and 2-D Expansion.	01	B. Barik
28	3-Dementional Expansion. and relation between α, β, γ.	01	B. Barik
29	First law of thermodynamics	01	B. Barik
30	Energy Conservation, thermal Equilibrium, Numerical discussion.	01	B. Barik
	UNIT-VIII		
31	Concept of light Reflection and its law	01	B. Barik
32	Refraction and laws of refraction	01	B. Barik

33	Total internal reflection. Critical angle and optical fibre and Mirage.	01	B. Barik
34	Refraction through prism.	01	B. Barik
	UNIT-IX		
35	Concept of static charge. Coulomb's laws in Electrostatic.	01	B. Barik
36	Electric field, lines of force and its property, Electric field potential.	01	B. Barik
37	Capacitance. Series and parallal Combination of Capacitor. — problem discussion —	01	B. Barik
38	Concept of Magnet, Coulomb's law of magnetostatic.	01	B. Barik
39	Magnetic field, lines of force and its property.	01	B. Barik
40	Magnetic flux, flux density Magnetic field intensity, Susceptibility Intensity of Magnetisation.	01	B. Barik
	UNIT-X		
41	Concept of Current and ohm's law.	01	B. Barik
42	Series and parallal Combination of resistance, — Simple Numerical discussion —	01	B. Barik
43	Kirchhoff's first law (KCL) and Explanation	01	B. Barik

44	Kirchhoff's 2nd law (KVL) → Explanation and solution of Electrical Circuit.	01	B. Barik
45	→ Wheatstone's Bridge (Balance Condition.)	01	B. Barik
	UNIT-XI		
46	Concept of electromagnetism Force acting on Current Carrying Conductor placed in uniform Magnetic field.	01	B. Barik
47	Discussion of Flemmings Left hand rule. Faraday's laws of electromagnetic induction.	01	B. B. Barik
48	Lenz's law and flemeng's right hand rule. Comparision between Flemmings Left and right hand rule.	01	B. Barik
	UNIT-12		
49	Concept of LASER discussion.	01	B. Barik
50	Population inversion, thermal inequilibirium Condition.	01	B. Barik
51	Metastable-state. Spontaneous and stimulated Emission of electron.	01	B. Barik
52	Properties and application of Laser.	01	B. Barik
53	Wireless transmission.	01	B. Barik

54	Revesion of UNIT-I & II Problem discussion.	01	B. Barik
55	Revesion of UNIT-III & IV	01	B. Barik
56	Revesion of UNIT-V & VI	01	B. Barik
57	Assignement - discussion. Doubt Clearing.	01	B. Barik
58	Revesion of UNIT-VII, VIII Numerical discussion.	01	B. Barik
59	Revesion of UNIT-IX, X, XI	01	B. Barik
60	Revesion of UNIT-XII Assignment discussion.	01	B. Barik.