Government Polytechnic Hamirpur (H.P.)
Lesson Planning (Theory)

Branch: Computer Engg. and IOT
Subject: Mathematics-I
Teacher: Subhash chand

Semester: Ist
Session: Aug 2025- November2025
Laboratory:

S. No.	Week	No. of Lectures	Chapter/Unit Description		Reference Resources	Remarks
1	2nd Week of August	1	Trigonometry	Introduction to Mathematics.	R1, R2 and R3	
2	3rd Week of August	4		Introduction of Trigonometry and concepts of angles		
3	4th Week of August	5		Measurements of angles in degrees, grades and radians and their conversions		
4	5th Week of August	5		T-ratios of some allied angles, Sum, difference formulae and their applications.		
5	1st Week of September	5		Product formulae and Multiple & submultiple angles, Graphs of sinx, cosx , tanx, exp(x) etc.		
6	2nd Week of September	5	Differential calculus	Concept of Limits and Functions	R1, R2 and R3	
7	3rd Week of September	5		Differentiation, Differentiation of exp x, sin x and cos x and tanx by 1st Principle		
8	4th Week of September	5		Differentiation of sum, product and quotient of functions, differentiation of function of a function		
9	5th Week of September	2		Differentiation of trigonometric functions.		
10	1st Week of October	2		Differentiation of inverse trigonometric functions.		
11	2nd Week of October	4		Differentiation of logarithmic differentiation, exponential differentiation		
12	3rd Week of October	3		Complex numbers: Definition, real and Imaginary part of complex number, conjugate, modulus & amplitude of a complex number		

13	4th Week of October	2		Addition, Subtraction, Multiplication and Division of complex numbesr, Polar and Cartesian representation of a complex number and its conversion,		
14	5th Week of October	5		De-movier's theorem and its application		
15	2nd Week of November	4	Algebra	Partial fractions (linear factors, repeated and non-repeated linear factors),	R1, R2 and R3	
16	3rd Week of November	5		Permutations and combinations		
17	4th Week of November	5		Binomial theorem for positive integral index and any index, first and second binomial approximation with applications		
18	5th Week of November	3		Binomial theorem for positive integral index and any index, first and second binomial approximation with applications		

Reference Resources
R1: Mathematics-I by Satish Kumar Sharma
R2: Appllied Mathematics by RD Sharma
R3 : Elementary Engg. Mathematics-I by BS Grewal

Signature of Teacher

(01.08.2025)

Signature of HOD
Applied Sc. & Humanities

Govt. Polytechnic Hamirpur (H.P.)
Practical Planning & Coverage

Branch : **Computer and I.o.T.**

Subject : Applied Physics Lab-I

Teacher: **Subhash chand**

Semester : First

Session : August 2025- November 2025

Labortary: Applied Physics Lab-I

Pract. No.	Description of Practical	Reference for Procedure/ Write up	Likely Dates	Actual Dates	Signature
1	To measure length, radius of a given cylinder, a test tube and a beaker using a Vernier caliper and find volume of each object.	Applied Physics-II lab manual-2022 scheme/ Applied Physics- By RA BANWAT	2nd and 3rd week of August		
2	To determine diameter of a wire, a solid ball and thickness of cardboard using a screw gauge.	Applied Physics-II lab manual-2022 scheme/ Applied Physics- By RA BANWAT	4th and 5th week of August		
3	To determine radius of curvature of a convex and a concave mirror/surface using a spherometer.	Applied Physics-II lab manual-2022 scheme/ Applied Physics- By RA BANWAT	1st week of September		
4	To verify triangle and parallelogram law of forces.	Applied Physics-II lab manual-2022 scheme/ Applied Physics- By RA BANWAT	2nd and 3rd week of September		
5	To find the co-efficient of friction between wood and glass using a horizontal board.	Applied Physics-II lab manual-2022 scheme/ Applied Physics- By RA BANWAT	4th and 5th week of September		
6	To determine force constant of a spring using Hook's Law.	Applied Physics-II lab manual-2022 scheme/ Applied Physics- By RA BANWAT	1st and 2nd week of October		
7	To verify law of conservation of mechanical energy (PE to KE).	Applied Physics-II lab manual-2022 scheme/ Applied Physics- By RA BANWAT	3rd and 4th week of October		
8	To measure room temperature and temperature of a hot bath using mercury thermometer and convert it into different scales.	Applied Physics-II lab manual-2022 scheme/ Applied Physics- By RA BANWAT	5th week of October		
9	To find the moment of inertia of a flywheel.	Applied Physics-II lab manual-2022 scheme/ Applied Physics- By RA BANWAT	1st, 2nd and 3rd week of November		
10	To determine atmospheric pressure at a place using Fortin's barometer	Applied Physics-II lab manual-2022 scheme/ Applied Physics- By RA BANWAT	4th and 5th week of November		

Signature of Teacher

(01.08.2025)

Signature of H.O.D.