### 1St Sem

# Name of the Assistant/ Associate Professor: - Sangeeta

## Class: B.A/ B.SC. 1st

## Subject: Calculus

Week	Topics
Sep 1	Introduction to Syllabus and Pattern
Sep 2	Successive differentiation, Leibnitz theorm
Sep 3	Maclaurin and Taylor series expensions
Sep 4	Newtons method, Radius of curvature for pedal curves
Oct 1	Tangential polar equations
Oct2	circle of curvature, chord of curvature
Oct 3	Asymptotes , Intersection of curve and its asymptotes
Oct 4	Test for concavity and convexity
Nov 1	Points of inflexion, multiple points
Nov 2	Cusps, nodes, conjugate points
Nov 3	Reduction formulae, Rectification
Nov 4	Multiple integrals Area and volume by double integral
Dec 1	Cylindrical and spherical coordinates, Volume of solid

## 5th Sem

Name of the Assistant/ Associate Professor: - Sangeeta

### Class: B.A/B.Sc 3rd

## Subject: Group and Rings

Week	Topics
Sep 1	Definition of group with example and properties,
	subgroups and its criteria
Sep 2	Generation of group, cyclic group
Sep 3	Lagrange theorem and normal subgroups
Sep 4	Quotient group, homomorphism, isomorphism, automorphism
Oct 1	Automorphism of cyclic group, Alternating group,
	Kayley theorem
Oct2	Introduction to ring, subring
Oct 3	Fields, Ideal and Quotient rings
Oct 4	Euclideans rings, polynomial rings
Nov 1	Polynomial over the rational field
Nov 2	The Einstein criteria
Nov 3	Polynomial rings
Nov 4	Commutative rings
Dec 1	Unique factorization domain

#### **LESSON PLAN OF MATHEMATICS**

Name of College:- CH. BANSI LAL GOVT. P.G. COLLEGE LOHARU (BHIWANI)

Academic Session:- 2021-22

Semester:- B.A. / B.Sc. Non medical

### Subject:- NUMBER THEORY AND TRIGONOMETRY

**Teacher name:- MS. SANGEETA** 

	LESSON PLAN OF NUMBER THEORY
	AND TRIGONOMETRY
February	
Week 3:	Introduction to Syllabus and Pattern
Week 4:	Divisibility, Greatest common divisor, least common multiple, primes
March	
Week 1:	Fundamental theorem of arithmetic , linear congruencies
Week 2:	Fermat's theorem, Wilson's theorem and its converse
Week 3:	Complete residue system and reduced residue system modulo m, Euler function, Chinese remainder theorem
Week 4:	Quadratic residues, Legender symbol, Gauss lemma, Greatest integer function, Divisor function, Sum function
April:	
Week 1:	De Moivre's theorem, Expansion of trigonomrtric functions
Week 2:	Direct circular and hyperbolic functions and their
	properues
Week 3:	Logarithm of a complex quantity
Week 4:	Gregory's series
May	
Week 1:	Summation of trigonometric series
Week 2:	Doubt classes

### Name of Lecturer:-Sangeeta

### Class and Section :- B.A./B.Sc 2nd

#### Semester :- 4th

### Subject:- Programming in C and numerical methods

Sr.	Week/months	Topic / particulars
по.		
1	1 <sup>st</sup> / Feb.	Programmer model of a computer, algorithms, flow chart
2	2 <sup>nd</sup> /Feb.	Data type, operators and expressions, input/output functions
3	3 <sup>rd</sup> / Feb.	Decision control structures, logical and conditional statements, Loops, Switch and Case control structure
4	4 <sup>th</sup> / Feb	Strings, character data types, Arithmetic operation on characters
5	1 <sup>st</sup> / March.	Structure: definition and uses
6	2 <sup>nd</sup> / March	Solution of algebraic and transcendental equations; Bisection method
7	3 <sup>rd</sup> / march	Regula falsi method, secant method
8	4 <sup>th</sup> / March	Fixed point iterative method, Newton Raphson's method
9	1 <sup>st</sup> / April	Newton iterative formulae for nth root of a number and order of convergence
10	2 <sup>nd</sup> / April	Gauss elimination method, Gauss Jordan method
11	3 <sup>rd</sup> / April	Iterative method and Jacobi method
12	4 <sup>th</sup> / April	Gauss seidal method and Relaxation method

## 3rd Sem

# Name of the Assistant/ Associate Professor: -Sangeeta

## Class: B.A /B.SC. 2nd

## Subject: Statics

Week	Topics
Sep 1	Composition and resolution of forces
Sep 2	Parallel forces
Sep 3	Moments and couples
Sep 4	Analytical condition of equilibrium of coplanar forces
Oct 1	Friction and center of gravity
Oct2	Virtual work
Oct 3	Virtual work
Oct 4	Forces in three dimension
Nov 1	Poinsots central axis
Nov 2	Wrenches
Nov 3	Wrenches
Nov 4	Null lines and planes
Dec 1	Stable and unstable equillibrium