

MATHEMATICS
WEEKLY LESSON PLAN
BSc III SEMESTER(Sec. A&C)
PARTIAL DIFFERENTIAL EQUATIONS

Week 1(16-07-2018 to 21-07-2018)

Formation of Partial Differential Equation

-With Arbitrary constants

-With Arbitrary Functions

Week 2(23-07-2018 to 28-07-2018)

First Order Linear Partial Differential Equation

-By direct Method

-Lagrange's Linear Equation(Various Types)

-Problems Solving session and group discussion

Week 3(30-07-2018 to 04-08-2018)

First Order Non Linear PDE

-Compatible System of PDE

-Charpit Method

-Problems

-Test of Lagrange's Equation

Week4(06-08-2018 to 11-08-2018)

First Order Non Linear PDE

-Standards Forms

Week5(13-08-2018 to 18-08-2018)

-Jacobi's Method

-Assignment on Charpits Method

-Problems

Week6(20-08-2018 to 25-08-2018)

-Linear PDE of Second and Higher Order

-Linear Homogeneous PDE

-Complementary Functions and Particular Integral

Week7(27-08-2018 to 01-09-2018)

-Non-Linear PDE of Second and Higher Order

-PDE with Variable coefficients

-Problem solving sessions

Week 8(04-09 -2018 to08-09-2018)

Classification and canonical forms of second order Linear PDE

-Classification

- Reduction of Hyperbolic Equation to Canonical form

Week9(10-09-2018to15-09-2018)

-Reduction of Parabolic Equation to Canonical Form

-Reduction of Elliptic Equation to Canonical Form

-Solution of Linear Hyperbolic Equation

Week10(17-09-2018-22-09-2018)

-Monge's Method for Second Order PDE

-Problems

-Assignment on Canonical Forms

Week11(24-09-2018 to 29-09-2016)

-Characteristics of Second Order PDE

-Cauchy's Problem
Week12(01-10-2018 to 06-10-2018)
-Solution of One Dimensional and Two Dimensional Wave Equation
-Problems
-Test on Canonical Forms
Week13(08-10-2018 to 13-10-2018)
-Solution of Heat Equation
-Solution of Laplace Equation
-Assignment on Wave Equation
Week 14(15-10-2018to20-10-2018)
-Revision of Unit 1 and 2
Week 15(22-10-2018to 27-10-2018)
-Revision of Unit 3 and 4
Week 16(29-10-2018 to 03-11-2018)
-Group Discussions
-Seminars

Dr. Gulshan Kumari
Asso. Prof. (Maths)

MATHEMATICS
WEEKLY LESSON PLAN
BSc V SEMESTER(Sec. B&R)
Groups And Rings

Week 1(16-07-2018 to 21-07-2018)

_Groups With their simple Properties

-Order of a group with

-Problems

Week 2(23-07-2018 to 28-07-2018)

-Subgroups

-Cyclic Groups

-Doubts clearing session

Week 3(30-07-2018 to 04-08-2018)

-Cosets

-Normal Subgroup

-Problems on Groups and Subgroups

Week4(06-08-2018 to 11-08-2018)

-Homomorphism and Isomorphism

-Automorphism and Inner Automorphism

Week5(13-08-2018 to 18-08-2018)

-Inner Automorphism

-Automorphism of Cyclic Group

-Centre of a Group

Week6(20-08-2018 to 25-08-2018)

-Derived group of a group-Characteristic Subgroups

-Doubts Session

-Assignment on Groups and Subgroups

Week 7(27-08 -2018 to01-09-2018)

-Permutation Group

-Alternating Group

-Caley's Theorem

Week8(04-09-2018to08-09-2018)

-Rings

-Integral Domains

-Fields

Week9(10-09-2018 to 15-09-2018)

-Subring

-Centre of a Ring

-Characteristic of a Ring

-Doubts

Week10(17-09-2018 to 22-09-2018)

-Ideal

-Principal Ideal

-Prime Ideal

-Maximal Ideal

-Test on Groups and Rings

Week11(24-09-2018to29-09-2018)

-Quotient Ring

- Homomorphism of Rings
- Doubts
- Week12(01-10-2018 to 06-10-2018)
- Euclidean Rings
- Principal Ideal Domain
- Irreducible Elements
- Week13(08-10-2018 to 13-10-2018)
- Polynomial Rings
- Polynomials over an Integral Domain
- Polynomials Over Field
- Week 14(15-10-2018to20-10-2018)
- Unique Factorization Domain
- Doubts
- Week 15(22-10-2018to 27-10-2018)
- Revision and Problems
- Week 16(29-10-2018 to 03-11-2018)
- Group Discussions
- Seminars

Dr. Gulshan Kumari
Asso. Prof. (Maths)