**LESSON PLAN 2024-25 (Odd Sem.)**

**Class: B.A/B.Com-Ist Sem. (MDC)**

**Name :- Dr Vinod Kumar Sub:- Introductory Mathematics**

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| **Month** | **1st Week** | **2nd Week** | **3rd Week** | **4th Week** | **5th Week** |
| JULY | -------- | -------------- | ------------ | Numbers, H.C.F. and related problems | L.C.M. of Numbers and related problems |
| **AUG.** | Decimal and Fractions and related problems | Simplification, Square roots and related problems and cube roots, and related problems | Surds and indices, and related problems | Problems on numbers.  and related problems. | Average  and related problems  Assignment, Test |
| **SEPT.** | Percentage, Assignment, Test | Profit and Loss, and related problems | Ratio and proportion, | Problem on ages, and related problems Assignment, Test | Related problems and Assignment, Test |
| **OCT.** | Partnership.and problems. | Time and work, and related problems | Time and distance, and related problems, Assignment, Test and | Problems on trains, and related problems | Problem Discussion Diwali Holiday |
| **NOV.** | Diwali Holiday and related problems | Mixure problem, and related problems. | Problems based on Calendar and  clock. and related problems | Assignment, Test and Revision(if any) | Final Exam Start |

Teacher Signature

**LESSON PLAN 2024-25 (Odd Sem.)**

**Class: B.A/B.sc-IIIrd Sem. (Mathematics)**

**Name :-Dr Vinod Kumar Sub:- Statics**

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| **Month** | **1st Week** | **2nd Week** | **3rd Week** | **4th Week** | **5th Week** |
| JULY | -------- | --------- | -------- | Introduction and Basics of Statics, Composition and resolution of forces | Discuss problems, Assignment, |
| **AUG.** | Composition and resolution of forces and Exercise | Parallel forces.  And related problems. Assignment. | Moments and related problems. | Couples and related problems | Analytical conditions of equilibrium of coplanar forces. and related problems |
| **SEPT.** | Analytical conditions of equilibrium of coplanar forces and related problems. | Friction. and problems. | Centre of Gravity and related problems. Assignment, Test | Centre of Gravity and related problems | Exercise and Problem Assignment, Test |
| **OCT.** | Virtual work and related problems | Forces in three dimensions. Poinsots central axis and related problems. | Wrenches  and related problems. | Null lines and planes and related problems. | Stable and unstable equilibrium.  Diwali Holiday |
| **NOV.** | Diwali Holiday  Excercie and Problem | Stable and unstable equilibrium. | Assignment, Test and Revision | Revision | Final Exam Start |

Teacher Signature

**LESSON PLAN -2024-25 (Odd Sem.)**

**Class: B.A/B.sc-Vth Sem. (Mathematics)**

**Name :-Dr Vinod Kumar Sub:- Numerical Analysis**

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| **Month** | **1st Week** | **2nd Week** | **3rd Week** | **4th Week** | **5th Week** |
| JULY | -------- | -------------- | --------------- | Finite Differences operators and their relations. Finding the missing terms and effect of error in a difference tabular values and related problems | Interpolation with equal intervals and Exercise, Assignment, Test |
| **AUG.** | Newton’s forward and Newton’s backward interpolation formulae and related problems | Interpolation with unequal intervals. and related problems. Assignment | Newton’s divided difference related problems. | Lagrange’s Interpolation formulae and related problems | Hermite Formula.  and related problems, Assignment, Test |
| **SEPT.** | Central Differences: Gauss forward and Gauss’s backward interpolation formulae,  , and related problems. | Sterling, Bessel Formula and related problems | Probability distribution of random variables, Binomial distribution and problems.  Assignment, Test | Poisson’s distribution, Normal distribution: Mean, Variance and Fitting.  and related problems. | Exercise and Problem Assignment, Test |
| **OCT.** | Numerical Differentiation: Derivative of a function using interpolation formulae as studied in Sections –I & II.  and related problems. | Eigen Value Problems: Power method, Jacobi’s method, Given’s method, House-Holder’s method, QR method, Lanczos method and related problems | Numerical Integration: Newton-Cote’s Quadrature formula, Trapezoidal rule, Simpson’s one- third and three-eighth rule, Chebychev formula, Gauss Quadrature formula.  and related problems. | Numerical solution of ordinary differential equations: Single step methods-Picard’s method. Taylor’s series method, Euler’s method, and related problems. Assignment, Test | Runge-Kutta Methods. Multiple step methods; Predictor-corrector method, Diwali Holiday |
| **NOV.** | Diwali Holiday  Excercie and Problem | Modified Euler’s method, Milne-Simpson’s method. | Assignment, Test and Revision(if any) | Revision(if any) | Final Exam Start |

Teacher Signature

**LESSON PLAN 2024-25 (Odd Sem.)**

**Class: B.A/B.Sc/B.Com. -Ist Sem. (Minor)**

**Name :- Dr Vinod Kumar Sub:- Basic Mathematics**

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| **Month** | **1st Week** | **2nd Week** | **3rd Week** | **4th Week** | **5th Week** |
| JULY | -------- | -------------- | ------------------ | Calculus:. Differentiation and related problems | Partial  derivatives up to second order and related problems |
| **AUG.** | Problem exercise based Homogeneity of | Euler’s theorem and related problems and related problems | Problem exercise based total differentials,and related problems | Problem, exercise based total differentials, | Problem exercise based total differentials, Assignment, Test |
| **SEPT.** | Differentiation of implicit function with the help of total differentials Assignment, Test | Problem exercise based on Differentiation of implicit function with the help of total differentials | Problem exercise based on Differentiation of implicit function with the help of total differentials | Problem exercise based on Differentiation of implicit function with the help of total differentials  Assignment, Test | Problem exercise based on Differentiation of implicit function with the help of total differentials |
| **OCT.** | Maxima and Minima; Cases of one  variable and problems. | Maxima and Minima; Cases of variable involving second order and related problems | Maxima and Minima; Cases of  variable involving higher order and related problems, Assignment, Test and | Problem exercise based on Maxima and Minima; Cases of one  variable involving second or higher order and related problems | Problem , Exercise, Diwali Holiday |
| **NOV.** | Problem , Exercise, Diwali Holiday | Derivatives; Cases of two variables involving not more than one  constraint.and related problems. | Derivatives; Cases of two variables involving not more than one  constraint.and related problems | Assignment, Test and Revision(if any) | Final Exam Start |

Teacher Signature