| CHAPTER NAME | 24th JAN S-01 | 24th JAN S-02 | $25 J A N U A R Y$ Shift-01 | 25 JANUARY Shift-02 | 29 JANUARY Shift-01 | 29 JANUARY Shift-02 | 30 January s-01 | 30 Jan s-02 | 31st January Shift-01 | 31st January shift-02 | 1 Feb S-01 | 1-Feb S-02 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1.SETS, RELATIONS | 1.Power Set Types of Relation | 1.Equivalence Reation | 1. No of Set |  |  | 1. Equivalance Relation |  |  | 1.Equivalence Relation | 1.Type of Relation |  | 1.Equilavalance relation <br> 2. No of elements in a <br> set |
| 2.FUNCTIONS |  | 1.functional Equation 2. | 1. Inverse of Compasite Function | 1. Range of Logarithic \& ITionometric 3. Numero fountions 3. unction Value finding |  | 1 Functional | 1.Number of one function 2. composite function 3.GP problem involving equation | 1.Range of rational function 2. <br> Number of functions | 1.Domain and Range of g.i.f function | 1.Range of Rational Function |  | 1. Functional equa |
| 3.COMPLEX NUMBERS | 1. Eulers Form | 1.Demoivers Theorem | 1. Geemetry of Complex No. | ${ }^{1.1}$. Geometry of Complex | 1.Basics | 1. Conjugate Problem | 1. Argument of complex | 1. nth root | 1.Geometry Problem | 1.Eulers Form | $\begin{aligned} & \text { 1. Geometry of } \\ & \text { complex } \\ & \text { numbers } \end{aligned}$ | 1. Geometry of <br> complex number |
| 4.QUADRATIC EQUATIONS | 1.Finding roots using g.i.f <br> 2.Quadratic Involving Modulus | No of Real Solutions | 1. Miscellaneas Problem | 1. Relation blw | 1. Common Root | ${ }_{7}^{1 .}{ }^{\text {Finding Roots of } x \text { to the power }}$ |  | 1. Common root | 1.Finding no of Real Roots |  |  | 1.Location of roots |
| 5.MATRICES | 1.Properties of Matrix 2. Algebra of Matrices | 1. No of Matrices |  |  | . Matrix Polynomial | 1.Finding Inverse of Matrix 2. Symmetric Matrix | 1.Symmetric and trastitive |  | 1.Product of Matrices upto $n$ times | 1.Solving Matrices 2.Finding no of Matrices with given Condition |  | 1.Finding power of matri |
| 6.DETERMINANTS | 1. Cramers Rule | 1.Cramers Rule 2 <br> Properties of Adjoint <br> and Inverse | 1. properities of adioint 2. Cramers Rule |  | 1. Cramers Rule |  |  | 1. Properties of adjoint 2 <br> ramers rule | 1.Cramers Rule | 1. Properties of Adjoint | $\begin{gathered} \text { max and } \\ \text { value } \end{gathered}$ | 1. Cramers rule |
| 7.PERMUTATIONS AND COMBINATIONS | 1.Selection Concept 2. | 1.0igit Problem | 1. Arangement using Digits | 1. Digit Probem | 1. Rank ot number 2. Rank of a Number |  | 1.number of four digit numbers divisible by given number | . Number problem using P\& C . Digit problem | 1. No of Digits Divisible byCertain $N$ <br> Problem | 1.Solving Permutation Algebra | 1. Finding no can be formed by N 2. No of 3 digits divis by $2 / 3$ | 1. No of numbers of |
| 8.MATHEMATICAL INDUCTIONS |  |  |  |  |  |  |  |  |  |  |  | 1. No of integral solutions with inequalities |
| 9.BINOMIAL THEOREM | 1.Summation of Product | 1.Summation of B.C's |  | 1. summation of binomial coefficient 2. Finding Remainder | $\begin{gathered} \text { 1. Coefficient of middede } \\ \text { a2. General term } \end{gathered}$ | 1. Middle term of function | 1.finding coefficient equating |  | 1.General Term 2.Finding | 1.General Term 2.Finding Coefficient | 1. Finding | 1. Finding term independent of $x^{\wedge} 2$. <br> Binomial expansion |
| 10.SEQUENCE AND SERIES | $\begin{aligned} & \text { 1.Basics of AP } \\ & \text { 2.Basics of GP } \end{aligned}$ | 1.Summation of Special Series <br> eries | 1. General Term of A.P | 1. Basics | 1. Basic of GP 2. Equation mix. | $\begin{aligned} & \text { 1.Summation problem with } \\ & \text { Recurance } \\ & \text { problemen } \end{aligned}$ | 1.sum of special series problem of summation | 1. Basics of AP and GP 2. Sum of common term of series | 1.Basics of G.P 2.Solving by Elimination | 1.Basics of AP 2.Special sum problem |  |  |
| 11.LIMIT | 1.Simplification Type Problem | 1.Limit of g.if | 1.LLimit tending to infinity |  | 1. Linit of Piecewise |  | 1.solving limiti involving def | 1. Limit of composite functions 2 . <br> Infinity problrm |  | 1.Limit using Rationalisation | 1. ${ }_{\text {sumit }}$ Lisa |  |
| 12.CONTINUITY \& DIFFERENTIABILITY | 1.Continuity of piecewise function | 1.Higher order <br> Differentiation 2.Newton <br> binitz Problem | $\begin{aligned} & \text { 1. Differentiation of } \\ & \text { manipulative rational } \\ & \text { functions } \end{aligned}$ |  |  | Double differentiation proo | (O) |  | 1. Newton Leibinitz 2 <br> Differentiation of Complex Function | 1.Newton Leibinitz |  | 1. Double diffrentiation |
| 13.INDEFINITE INTEGRATION |  |  |  |  | - |  |  | 1. Direct integration |  |  |  |  |
| 14.DEFIIITE INTEGRATION | 1.Definite Integration of Modulus Functer Queens Rule | 1.Integration of Standard Formula | 1. Partial Fraction Method | 1. KUTUR- PUTUR Method 2. Modulus Function type Problem |  | Replagement of xy $11 \times \times$ | IIntegrating GIf functions |  | 1 Expansion Problem 2 Standard form of Trigonometric Integration | 1.Rationalizatio |  | 2. Queens formula |
| 15.AREA UNDER CURVE | 1.Area b/w Line and Parabola | 1.Area b/w Line and | 1. Area blw Parabola |  | 1. Area of circle \& parabola 2. Area of cir integration | ea of Trigonometric fun | 1. area between line and | 1. Area using inequalities 2 . Mix <br> parabola area | 1.Area of fog | 1.Area of thequaltie |  | Bernoul's equation |
| 16.DIFFRENTIAL EQUATIONS | 1.Variable Separable <br> Form | 1.Homogeneous Form | I's 7 | Linear diff | 1. Miscelllaneous probk $\mathbf{y}=f(x)+k$ 2.Linear Differntial equation | Linear differnetial equation | 1.Lnear differential equation | mogenous form |  | 1.Homogeneous Form |  |  |
| 17.Straight line | 1.Area of Triangle | 1.Orthocentre 2. <br> Centroid of Triangle |  | 1. No. of points inside a triangle | 1. Reflection concept in staright line 2. Area of triangle | 1. Area of Triangle Mixing line , Parabola \& Ellipse | 1.1ntercept and slope mixed |  |  |  |  |  |
| 18.Circle |  | 1.Locus Problem |  | 1. Tangent toa circe | (1.tangent ata Pointo |  | 1.Tangent to the circle | 1.Common tangent of crile and | 1.Perendicular and lmage | 1.Chord of Circle |  |  |
| 19.PARABOLA | 1.Tangent to Parabola and Hyperbola |  | 1. Common tangent b/w | 1. Tangent to Parabola |  |  | 1.Distance and directrix | Thersection of parabal | 1.Creating Parabola with foc and Directrix | 1.Tangent on the line Parabola 2. Normal on Parabola |  | 1. Focal chord of parabola |
| 20.ELIIPSE | 1.Combination of Circle \&Ellipse 2.Tangent <br> to Ellipse $\| l$ |  |  |  |  |  |  |  | 1.Normal to the Ellipse |  |  |  |
| 21.HYPERBOLA |  |  | 1. Normal to hyperbola | 1. Combination of hyperbola \& Parabola |  |  |  |  |  | 1.Basics of Hyperbola |  | 1. Finding point on hyperbola nearest to given line given line |
| 22.VECTOR | 1. Dot 8 Cross Product | 1.Dot and Cross product 2.Dot Product | 1. Vector Triple Product 2. <br> Projection of two vector | 1. D \& 8 Cross Product | 1. Projection of Vector 2. Coplanar Vector | 1. Projection of Vector <br> 2. Dot \& Cross Product | 1.Vector triple product | 1. Dot and cross product 2. Cross produc | 1.Basic algebra of Vectors 2. Lagranges Identity | 1.Volume of TetraHedron 2.Dot and Cross Product 3.Cross and Dot Produc | 1. Veector triple |  |
| 23.3D |  | 1.Line of Intersection of two planes 2.Foot Perpendicular 3. lines | 1. Distance of points paralll to given line 2. distance b/w two lines 3. Distance of point from plane |  | 1.Area Of Traingle with given line <br> of plane from a point | 1. Shortest distance between line Intersectuon of line \& p 3. Intersection of lines |  | 1. Combination of ine and plane 2. Findina plane 3. 3 Distance of 2. Finding plane | 1.Intersection of line and plane 2.Shortest Distance b/w the lines 3.Combination of Line and Plane | 1.Equation of Plane 2. Combination of Line and Plane |  | planes <br> 2. Miss. problems using DR 3. LINE AND PLANE mix |
| 24.STATISTICS |  | 1.Mean and Variance | 1. Mean 8 Variance |  |  | 1. Varance | 1.Mean and variance | 1. Mean deviation about mean | 1.Variance | 1.Mean Variance and S . D | ${ }^{\text {1. Mean and }}$ vaiance | 1. Standard deviation |
| 25.PROBABILITY |  | 1.Bayes Theorem | 1. Probability using algebraic equation | $\begin{aligned} & \text { 1. Probability using GP } \\ & \text { 2. Bayes Theorem } \\ & \text { 3. Problem using atleast } \end{aligned}$ | 1. Mean \& Variance 2. Probabability with atleast statement | 1. Succesive Probabily | 1.Dice problem soviving, | 1. Probability in successsion | 1.Bayes Theorem |  | ${ }^{\text {1. }}$ 1.inomila | ${ }_{\text {1. }}^{\text {1. Dice probomem on }}$ indeoendent event |


| 26.TRIGONOMETRY |  | 1.Summation of Trigonometric Function |  | 1. Trigonometric equation using multiple angle | 1. Summation Trigonometric Function | 1. Solving Trigonometric Equation | 1.tan15 ${ }^{\circ}$ problem |  |  |  | $\begin{aligned} & \text { 1.Silution } \\ & \text { usin traingle } \\ & \text { problem } \end{aligned}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 27.INVERSE TRIGONOMETRY | an-1x+tan-1y form |  | 1.tan-1x+tan-1y form |  |  |  | 1.solving log mixed with inverse trigonometry | 1. Summation of tan inverse <br> serie | 1.Soving Equation of.1.T. | 1.Range of Inverse Function | ${ }_{\text {1. Finding }}^{\text {solution of ITF }}$ |  |
| 28.MATHEMATICAL REASONING | 1.Equivalent Compound Statement | 1.Equivalent Sta | 1. Equivalent state | 1. Tautoog | 1. Three statement Prob | .Equivalant statem | 1.Tautology | 1. Statement based problem | 1.Tautology and Contradiction | 1.TTautology | 1. Negation of two <br> statements | 1. Tautology |
| 29.AOD |  |  |  | 1. maxima \& Minima of |  | 1. Equation of Normal using differentials | 1.finding normal using | 1.Common extremum finding | 1.Word Problem | 1.Maxima \& Minima of Absolute \& g.i.f Function 2.Solution Equation using Differential |  | 1. Maxima and minima of absolute value functions |

