**Concepts to Study**

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1. Successive differentiation
2. Nth derivative of functions
3. Leibinitz’s theorem, proof,
4. Functions of two or more variables
5. In general sums – n is odd/even
6. Homogenous function
7. Euler’s theorem
8. Extension of Euler’s theorem.
9. Partial differentiation
10. Functions of two or more variables
11. Limits – different methods
12. Algebra of limits
13. Functions – domain, range
14. Odd, eve, increasing, decreasing
15. Composition of functions

**30**

1. Continuity – different problems
2. Types of discontinuity
3. Bounded concepts
4. L.U.B & G.L.B
5. Taylor’s Theorem for function of 2 variables.
6. 2 Theorems – Function is bounded in closed interval, Attains its bounds
7. Limit of a function is unique
8. Rolle’s theorem with geometrical meaning
9. Lagrange’s mean value theorem with Geometrical meaning
10. Cauchy’s mean value theorem with geometrical meaning
11. Taylor’s theorem, series
12. Mclauren’s series
13. L – Hospital Rule
14. Indeterminant forms.
15. Maxima & Minima – function of 2 variables

**01**

1. Tracing of curves – Tangent & Normal
2. Derivative of arcs
3. Curvature of the curve
4. Radius of curvature in Cartesian form
5. Radius of curvature in parametric form
6. Asymptotes
7. Asymptotes Parallel to y axis
8. Asymptotes Parallel to x axis
9. Oblique asymptotes (all 6 steps)
10. Singular points, double points – point and nature.
11. Sandwhich theorem