

UNIT III IMPORTANT MODELS

MULTIPLE INTEGRALS

1. Evaluation of double integrals when all the limits are constants.
2. Evaluation of double integrals when inner integral is a function of x (y limits are given)
3. Evaluation of double integrals when inner integral is a function of y (x limits are given).
4. Evaluation of double integrals (when limits are unknown) over a given region.
5. Evaluation of double integrals by changing the order.
6. Evaluation of double integrals in polar coordinates.
7. Evaluation of double integrals over a region in polar coordinates.
8. Evaluation of double integrals by changing cartesian to polar coordinates.
9. Finding the area of a region using double integrals.
10. Evaluation of triple integrals limit given.
11. Evaluation of triple integrals when limit not given.
12. Finding volume of solids using cylindrical coordinates.
13. Finding the volume of solids using spherical coordinates.
14. Definition of double and triple integrals.