1. To reduce power of functions $\int \tan^n xdx, \int \cot^n xdx, \int \sec^n xdx, \int \operatorname{cosec}^n xdx$

(a) If ln $= \int \tan^n xdx$, then In $= \frac{\tan^{n-1} x}{n-1} - I_{n-2}$

(b) If In $= \int \cot^n xdx$, then ln $= -\frac{\cot^{n-1} x}{n-1} - I_{n-2}$

(c) If In $= \int \sec^n xdx$, then In $= \frac{\tan x \sec^{n-2} x}{n-1} + \frac{n-2}{n-1} I_{n-2}$

(iv) If In $= \int \operatorname{cosec}^n x$, then ln $= \frac{\cot x \operatorname{cosec}^{n-2} x}{n-1} + \frac{n-2}{n-1} I_{n-2}$

2.Integration of type $\int \sin mx \cdot \cos nxdx$

a)If m and n are even natural numbers then express $\sin mx \cos nx$ in the terms of sines and cosines of multiples of x by using trigonometric results or De' Moivere's theorem.

b)If m is an odd number then put $\cos x = t$.

If n is an odd number then put sin x = t.

If both m and n are odd numbers then put either $\sin x = t$ or $\cos x = t$.

c) When $m + n$ is a negative even integer then put $\tan x = t$.