

$$\textcircled{\text{IX}} \int \tan^m x \sec^{2n} x dx ; \int \cot^m x \operatorname{cosec}^{2n} x dx \quad m, n \in \mathbb{I}^+$$

$$\bullet \tan x = t$$

$$\bullet \cot x = t$$

$$\textcircled{\text{X}} \int \tan^{2m+1} x \cdot \sec^{2n+1} x dx \quad m, n \in \mathbb{I}^+$$

$$\bullet \sec x = t$$

$$\textcircled{\text{XI}} \int \sin^m x \cos^n x dx ; m, n \in \mathbb{N}$$

$$\bullet m \text{ is odd +ve : put } \cos x = t$$

$$\bullet n \text{ is odd +ve : put } \sin x = t$$

$$\bullet m, n \text{ both odd +ve : either } \cos x = t \text{ or } \sin x = t$$

$$\bullet m, n \text{ both even +ve : Multiple Angle}$$

$$\textcircled{\text{XII}} \int \sin^m x \cos^n x dx ; m, n \in \mathbb{Q} : (m+n) \text{ is a -ve Integer}$$

$$\bullet \text{ change the integrant in terms of } \tan x \text{ and } \sec^2 x \text{ by dividing } N^x \text{ and } D^x \text{ by } \cos^k x \text{ where } k = -(m+n)$$

$$\text{substitute : } \tan x = t$$

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