

BHASKAR CLASSES PVT LTD

Integration- SET 4

1. Evaluate the following:

I. $\int \frac{(x^2+2)dx}{x+1}$

II. $\int \frac{e^{6 \log x} - e^{5 \log x}}{e^{4 \log x} - e^{3 \log x}} dx$

III. $\int \frac{dx}{1+\cos x}$

IV. $\int \tan^2 x \sec^4 x dx$

V. $\int \frac{\sin x + \cos x}{\sqrt{1+\sin 2x}} dx$

VI. $\int \sqrt{\frac{a+x}{a-x}}$

VII. $\int \frac{dx}{\sqrt{16-9x^2}}$

VIII. $\int \frac{dt}{\sqrt{3t-2t^2}}$

IX. $\int \sqrt{5-2x+x^2} dx$

X. $\int \frac{x}{x^4-1} dx$

XI. $\int \frac{(\cos 5x + \cos 4x)}{1-2 \cos 3x} dx$

XII. $\int \frac{\sin^6 x + \cos^6 x}{\sin^2 x \cos^2 x} dx$

XIII. $\int \frac{\cos x - \cos 2x}{2 - \cos x} dx$

XIV. $\int \frac{dx}{x\sqrt{x^4-1}}$

XV. $\frac{x^2 dx}{(x^2+a^2)(x^2+b^2)}$