King Fahd University of Petroleum & Minerals Department of Mathematical Sciences Math 102 (111), Quiz # 3 (5.5)

Family name:

Sr. #

Q1) Evaluate the following:

$$i. \int \cot x \, dx$$

$$ii. \int \frac{\cos x}{1+\sin^2 x} dx$$

$$iii. \int x^3 \sqrt{x^2 + 1} \, dx$$

$$iv. \int_1^2 x \sqrt{x-1} \, dx$$

$$v. \int_{-1}^{1} \frac{\tan x + x^2}{1 + x^2} dx$$