

King Fahd University of Petroleum and Minerals
Department of Mathematics and Statistics
Math-102 Semester-153 QUIZ 02

NAME:

S.No.

ID:

Maximum Marks: 10

Section: 04

Time Allowed: 30 minutes

(1) Evaluate $\int \frac{1}{1 - e^{-t}} dt$.

(2) Evaluate $\int_{\sqrt{2}}^2 \frac{\sec^2(\sec^{-1}x)}{x \sqrt{x^2-1}} dx$.

(3) Find the area of the region enclosed by $y = \sec^2 x$, $y = \tan^2 x$,
 $x = -\frac{\pi}{4}$. and $x = \frac{\pi}{4}$.