

King Fahd University of Petroleum and Minerals
Department of Mathematics and Statistics
Math-102 Semester-153 QUIZ 03

NAME:

S.No.

ID:

Maximum Marks: 10

Section: 04

Time Allowed: 30 minutes

(1) Find the average value of $f(x) = \cos^4(x) \sin(x)$ on $[0, \pi]$.

(2) Evaluate $\int_0^t e^s \sin(t - s) ds$.

(3) Find the volume of the solid obtained by rotating the region bounded by $y = x - x^2$ and $y = 0$ about the line $x = 2$.