

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

NAME:

S.No.

ID:

Maximum Marks: 10

Section: 04

Time Allowed: 30 minutes

(1) Estimate the area under the graph of  $y = x^2$  from 1 to 7 by using the three rectangles and midpoints.

(2) Use the form of the definition of the integral to evaluate the integral

$$\int_0^3 (x^3 - 6x) dx.$$

(3) Use the Fundamental Theorem to find  $\frac{dy}{dx}$  if  $y = \int_{\tan x}^4 \frac{1}{2 + e^t} dt$ .