

King Fahd University of Petroleum and Minerals
MATH-101
Dr. M. Jarrar
Quiz 2

Name:-

ID:-

Sec.:- 2

S.N.:-

Q1) Given that $y = \frac{x^2 \cos(\pi \sqrt{\sin \pi x})}{x+1}$. Find $y' \Big|_{x=\frac{1}{2}}$ (4 points)

Q2) Find the limit, if it is exist. . (2 points)

a) $\lim_{x \rightarrow 0} \frac{1 - \cos x}{x^2}$

b) $\lim_{x \rightarrow 0} \frac{\sqrt{1 + \tan x} - \sqrt{1 + \sin x}}{x^3}$ (3 points)

Q3) Find $\lim_{x \rightarrow 4} \frac{e^{x^2} - e^{16}}{\sqrt{x} - 2}$. (4 points)