King Fahd University of Petroleum and Minerals

Math 101 **Quiz # 1(a)** **Time: 25 minutes** **Date:17-02-2015**

Name	ID #	Sr #	Sec#	Marks: /8

Q1. Find the following limits (i) $\lim_{x\to -3} \frac{2-\sqrt{x^2-5}}{x+3}$ (ii) $\lim_{x\to 0} \sqrt[3]{x}\ \cos\left(\frac{1}{x}\right)$

Q 2. Using $(\varepsilon - \delta)$ definition, show that $\lim_{x\to 6}\sqrt{10-x} = 2$.

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Math 101 **Quiz # 1(b)** **Time: 25 minutes** **Date:17-02-2015**

Name	ID #	Sr #	Sec#	Marks: /8

Q1. Find the following limits: $\lim_{t\to 0}\frac{\sqrt{t^2+100}-10}{t^2}$ (ii) $\lim_{x\to 0}\tan x\ \sin\left(\frac{1}{x}\right)$

2. Using $(\varepsilon-\delta)$ definition, to show that $\lim\limits_{x\to 3}\ (3x-7)=2.$

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Math 101	**Quiz # 1(c)**	**Time: 25 minutes**		**Date:17-02-2015**
Name	ID #	Sr #	Sec#	Marks: /8

Q1. Find the following limits: (i) $lim_{x\to 0}\ \frac{\frac{1}{x-1}+\frac{1}{x+1}}{x}$ (ii) $\lim_{x\to 0} \tan x\ \cos\left(\frac{1}{x}\right)$

Q 2. Using $(\varepsilon - \delta)$ definition, show that $\lim_{x\to 9} \sqrt{x-5} = 2$

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Math 101	**Quiz # 1(d)**	**Time: 25 minutes**		**Date:17-02-2015**
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Q1. Find the following limits: (i) $lim_{x\to 0}\ \frac{\frac{1}{x-1}+\frac{1}{x+1}}{x}$ (ii) $\lim_{x\to 0} sin^2 x\ \cos\left(\frac{1}{x}\right)$

Q 2. Using $(\varepsilon - \delta)$ definition, show that $\lim_{x\to 11}\sqrt{x-7} = 2$