King Fahd University of Petroleum & Minerals
Department of Mathematics and Statistics
Math 101 – **Quiz 5** Term 122

Student Name: **Student ID:**

Exercise

Let $f(x) = 2e^{\frac{1}{x-1}}$. The **domain** of f is **(- ∞, 1) ∪ (1,∞)**. Please answer the following:

1. $\lim_{x\to\infty} f(x)$ =
2. $\lim_{x\to-\infty} f(x)$ =
3. $\lim_{x\to1^+} f(x)$ =
4. $\lim_{x\to1^-} f(x)$ =
5. Find the asymptotes:

6. Find the Critical Points:

7. Complete the variation table:

x	- ∞	1	∞
f ’			
f			

8. Complete the concavity table and **find the inflection points**

x	- ∞	1	∞
f ’’			
Graph of f			