December 17,2015

QUIZ♯4 Math102-sec6.

Net Time Allowed: 25 minutes

Name: **ID ♯ :** **Serial ♯:**

Exercise1:(08 points)

Determine whether the series $\sum_{n=1}^{\infty} \frac{(-1)^{n-1}+2^n}{3^n}$, is convergent or divergent. If it is convergent, find its sum. **Justify clearly your answer !**

Exercise2:(04 points)

Find the sum of the series: $\sum_{n=0}^{\infty} \frac{(-1)^n}{4^n\,(2n)!}$ and $\sum_{n=0}^{\infty} \frac{2^n}{7^n\,n!}$.

Exercise3:(03 points)

Test the series: $\sum_{n=1}^{\infty} (\frac{1}{2})^{\frac{1}{n^2}}$. **Justify clearly your answer !**