King **F**ahd **U**niversity for **P**etroleum and **M**inerals
Department of Mathematics & Statistics
Term 153 Math 102 Quiz#5 (11.1, 11.2, 11.3 and 11.4)
Family Name: S.r#

Q1. Find the limit if the sequence $\left\{\left[\cos\left(\frac{1}{n}\right)\right]^{n^2}\right\}$ converges or show that it diverges.

Final Ans.

Q2. Find the sum if $\sum_{n=-1}^{\infty} \frac{3^{n-1}}{2^{2n+1}}$ converges or show that it diverges.

Final Ans.

Q3. Determine whether $\sum_{n=1}^{\infty} \operatorname{sech}^2 n$ converges or diverges. **Clearly state the test that you use.**

Final Ans.