King **F**ahd **U**niversity for **P**etroleum and **M**inerals
Department of Mathematics & Statistics
Term 162 Math 102 (06) Quiz#6 (11.4 to 11.9)
Family Name: S.r#

Q1. State the Limit Comparison Test.

Q2. Find the interval and radius of convergence for $\sum_{n=1}^{\infty} \frac{(x+1)^{2n}}{(-4)^n \sqrt[3]{n}}$

Q3. Test $\sum_{n=1}^{\infty} \frac{\sqrt[n]{n}}{n^2}$ for convergence or divergence.

Q4. Find a power series representation and its interval of convergence for $f(x) = \frac{3x^3}{(x-3)^2}$

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Q1. State the Comparison Test.

Q2. Find the interval and radius of convergence for $\sum_{n=0}^{\infty} \frac{(2x-6)^n}{\sqrt{n+1}}$

Q3. Determine whether $\sum_{n=1}^{\infty}(\sqrt[n]{3}-1)$ converge or diverge

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Q4. Find the sum of $\sum_{n=1}^{\infty}\frac{n}{2^n}$