

King Fahd University of Petroleum and Minerals  
Department of Mathematics and Statistics  
**Quiz # II Math 102 (Sections 11 & 15)**  
Semester II, 2006–2007 (062)

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Name: \_\_\_\_\_

ID #: \_\_\_\_\_

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1. Determine whether the sequence  $\left\{n^2 e^{-n}\right\}_{n=1}^{+\infty}$  converges or diverges. (2 points)

2. Determine whether the series  $\sum_{n=1}^{\infty} (-1)^{n+1} \frac{n+2}{n^2+1}$  is absolutely convergent, conditionally convergent or divergent. (3 points)