King Fahd University of Petroleum and Minerals Department of Mathematics and Statistics Math $102~(181)~{\rm Sec}~10$ - Quiz 4

Name: ID: Serial No.:

1. Determine whether the series $\sum_{n=1}^{\infty} \frac{1}{1+(\frac{2}{3})^n}$ is convergent or divergent. If it is convergent, then find its sum.

2. Determine whether the series $\sum_{n=2}^{\infty} \frac{1}{n(\ln n)}$ is convergent or divergent.

3. Determine whether the series $\sum_{n=1}^{\infty} \frac{\sqrt{n+2}}{2n^2+n+1}$ is convergent or divergent.

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