## KFUPM – Department of Mathematics and Statistics – Term 132 MATH 102 QUIZ5 # Code 1 (Duration = 15 minutes)

NAME:\_\_\_\_\_\_ID:\_\_\_\_\_Section: \_\_\_\_\_

Exercise 1 (5 points)

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

Exercise 2 (5points)

Determine whether the series  $\sum_{n=1}^{\infty} \left(\frac{n}{3}\sin(\frac{1}{n})\right)^n$  is convergent or divergent.

## KFUPM – Department of Mathematics and Statistics – Term 132 MATH 102 QUIZ # 5 Code 2 (Duration = 15 minutes)

NAME:\_\_\_\_\_\_ID:\_\_\_\_\_Section: \_\_\_\_\_

Exercise 1 (5points)

Determine whether the series  $\sum_{n=1}^{\infty} \frac{e^{-n}}{n!}$  is convergent or divergent.

Exercise 1 (5 points) Determine whether the series  $\sum_{n=1}^{\infty} \left(\frac{4}{3} - \frac{\ln(1+n)}{n}\right)^n$  is convergent or divergent.