Math102 Term172
Sec 31 Quiz 6

Name	ID	Sr

Instruction: choose the correct answer

Q1) The series

$$\sum_{n=1}^{\infty} \frac{(-1)^n}{3^n + n^3}$$

a) is conditionally convergent

b) is absolutely convergent.

c) is convergent by the integral test

d) is divergent by the integral test

e) is divergent by the Limit comparison test

Q2) The series

$$\sum_{k=2}^{\infty} \frac{k \ln k}{(k+2)^3}$$

a) is convergent by the Ratio test.

b) is a convergent alternating series.

c) is convergent by the comparison test.

d) is divergent by the integral test

e) is divergent by the Limit comparison test

Q3) The series

$$\sum_{n=1}^{\infty} \boldsymbol{n}^{-p^5+31}$$

is convergent if p belongs to

a) $(-\infty, -2)$

b) $(2, \infty)$

c) $(-\infty, -31)$

d) $(-31,0)$

e) $(-\infty, 1)$

Q4) The series

$$\sum_{n=1}^{\infty} (-1)^n \frac{5^n \ n!}{2 \cdot 5 \cdot 8 \cdots\cdots (3n-1)}$$

a) is absolutely convergent by the Ratio Test.

b) is conditionally convergent.

c) is convergent by the root test

d) is convergent by the comparison test.

e) is divergent.