KFUPM | Term 172 | Date: 3/5/2018

Mathematics & Statistics | MATH 102 | Duration: 40 minutes

Class Test 3-I

Name: ID #: Section: Serial #:

1. $\sum\left(-\frac{n}{5}\right)^n$ is (Abs. conv. / Cond. Conv. / Div.) using _____ test.

2. $\sum\frac{2\cdot4\cdot6\cdots(2n)}{n!}$ is (Abs. conv. / Cond. Conv. / Div.) using _____ test.

3. $\sum\frac{(\tan^{-1}n)^2}{n^2+1}$ (Abs. conv. / Cond. Conv. / Div.) using _____ test.

4. $\sum\frac{n}{b^n}(x-a)^n$ (Conv. / Div.) using _____ test.

With My Best Wishes

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Mathematics & Statistics | MATH 102 | Duration: 40 minutes

Class Test 3-II

Name: ID #: Section: Serial #:

1. $\sum(-1)^n \frac{n^n}{n!}$ is (Abs. conv. / Cond. Conv. / Div.) using _____ test.

2. $\sum \frac{(-1)^n}{n \ln n}$ is (Abs. conv. / Cond. Conv. / Div.) using _____ test.

3. $\sum \frac{1}{(3n-2)^{n+\frac{1}{2}}}$ (Abs. conv. / Cond. Conv. / Div.) using _____ test.

4. $\sum \frac{2 \cdot 4 \cdot 6 \cdots (2n)}{1 \cdot 3 \cdot 5 \cdots (2n-1)} x^n$ (Conv. / Div.) using _____ test.

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Mathematics & Statistics | MATH 102 | Duration: 40 minutes
Class Test 3-III

Name: ID #: Section: Serial #:

1. $\sum \frac{\cos\left(\frac{n\pi}{3}\right)}{n!}$ is (Abs. conv. / Cond. Conv. / Div.) using _____ test.

2. $\sum (-1)^n \frac{n}{\ln n}$ is (Abs. conv. / Cond. Conv. / Div.) using _____ test.

3. $\sum (-1)^n \tanh n$ (Abs. conv. / Cond. Conv. / Div.) using _____ test.

4. $\sum \frac{n(x-4)^n}{n^3+1}$ (Conv. / Div.) using _____ test.

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Mathematics & Statistics | MATH 102 | Duration: 40 minutes

Class Test 3-IV

Name: ID #: Section: Serial #:

1. $\sum\left(\sqrt[n]{2}-1\right)^{n}$ is (Abs. conv. / Cond. Conv. / Div.) using _____ test.

2. $\sum \frac{1}{n+n\cos^2 n}$ is (Abs. conv. / Cond. Conv. / Div.) using _____ test.

3. $1+\frac{1}{4}-\frac{1}{9}-\frac{1}{16}+\frac{1}{25}+\frac{1}{36}-\frac{1}{49}-\frac{1}{64}+\cdots$ (Abs. conv. / Cond. Conv. / Div.) using _____ test.

4. $\sum(-1)^n \frac{(2x+3)^n}{n\ln n}$ (Conv. / Div.) using _____ test.

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Class Test 3-V

Name: ID #: Section: Serial #:

1. $\sum \left(\frac{-2n}{n+1}\right)^{3n}$ is (Abs. conv. / Cond. Conv. / Div.) using _____ test.

2. $\sum \frac{n \ln n}{2^n}$ is (Abs. conv. / Cond. Conv. / Div.) using _____ test.

3. $\sum \frac{e^{-n}}{n^4}$ (Abs. conv. / Cond. Conv. / Div.) using _____ test.

4. Find the value of x for which $\sum_0^\infty 4^n(3+x)^{-n}$ Converges to 2. $x =$ __ using _____ test.

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