



MC200404821: IMRAN KHAN

Time Left 86
sec(s)

MTH621:Quiz-3

Quiz Start Time: 09:25 PM, 17 August 2021

Question # 2 of 10 (Start time: 09:26:54 PM, 17 August 2021)

Total Marks: 1

Generalized Mean Value Theorem says, If f and g are continuous on the closed interval $[a, b]$ and differentiable on the open interval (a, b) , then

Select the correct option

Reload Math Equations

- | | |
|-----------------------|--|
| ☐ | <div>$[g(b) - g(a)]f'(c) = [f(b) - f(a)]g'(c)$</div> <div>for some c in (a, b).</div> |
| ☐ | <div>$g'(x) = 0$ for all x in (a, b).</div> |
| ☐ | <div>$g'(x) = f'(x)$ for all x in (a, b).</div> |
| ☐ | <div>$[g(b) - g(a)] = [f(b) - f(a)]g'(c)$</div> <div>for some c in (a, b).</div> |

Click to Save Answer & Move to Next Question



MTH621:Quiz-3

Question # 8 of 10 (Start time: 08:50:33 PM, 17 August 2021)

The radius of convergence of the given power series $\sum n!x^n$ is ----.

Select the correct option

- | | |
|-----------------------|---------------|
| ☐ | 1 |
| ☐ | 0 |
| ☐ | none of these |
| ☐ | ∞ |

R



MTH621:QUIZ-3

Question # 1 of 10 (Start time: 09:06:25 PM, 17 August 2021)

The radius of convergence of $\sum a_n (x - x_n)^n$ is given by $--- = \lim_{n \rightarrow \infty} \left| \frac{a_{n+1}}{a_n} \right|$ if the limit exists in the extended real system.

Select the correct option

- | | | |
|-----------------------|---------------|----------|
| ☐ | $\frac{1}{R}$ | <i>R</i> |
| ☐ | n | |
| ☐ | none of these | |
| ☐ | R | |





92: NAVEED IQBAL

Time Le

:3

Quiz Start Time: 09:06 PM, 17

of 10 (Start time: 09:12:24 PM, 17 August 2021)

Let f be bounded on $[a, b]$, and let P be a partition on $[a, b]$. Then

The lower sum $s(P)$ of f over P is the — — — — — of the set of all Riemann sums of f over P .

rect option

Reload M

sup remum

infimum

R

Click to Save Answer & Move to Next Qu





(Start time: 09:14:08 PM, 17 August 2021)

Suppose that f has n derivative at x_o and n is the the smallest positive integer such that $f^n(x_o) \neq 0$. If n is even, x_o is ----- if $f^{(n)}(x_o) < 0$.

option

a local minimum of f .

R

a local maximum of f .

not a local extreme point of f .

None of these

Click to Save Answer & Move





992: NAVEED IQBAL

Time Le

ilz-3

Quiz Start Time: 09:06 PM, 17

9 of 10 (Start time: 09:14:52 PM, 17 August 2021)

Let f be bounded on $[a, b]$, and let P be a partition on $[a, b]$. Then

The upper sum $s(P)$ of f over P is the — — — — — of the set of all Riemann sums of f over P .

orrect option

Reload M

infimum

supremum

R

Click to Save Answer & Move to Next Qu





HANGIR

Quiz Start Time: 09:27

09:27:04 PM, 17 August 2021)

If f is ----- on $[a, b]$, then f is not integrable on $[a, b]$.

unbounded

bounded

Click to Save Answer & Move to





MC200403975: MOEEZA JAHANGIR

MTH621:Quiz-3

Question # 5 of 10 (Start time: 09:30:12 PM, 17 August 2021)

The series $\sum (-1)^n a_n$ converges if $0 \leq a_{n+1} \leq a_n$ and $\lim_{n \rightarrow \infty} a_n = \dots$

Select the correct option

- | | |
|-----------------------|---------------|
| ☐ | -1 |
| ☐ | None of these |
| ☐ | 1 |
| ☐ | 0 |

R





Quiz Start

9:31:21 PM, 17 August 2021)

If f is unbounded on $[a, b]$, then f is ----- on $[a, b]$.

integrable

not integrable

R

Click to Save/Ans



If f is differentiable at x_0 , then f is continuous at x_0 .

false

R

true



Quiz

https://quiz.vu.edu.pk



1 of 10 (Start time: 09:58:01 PM, 17 August 2021)

Suppose that f has n derivative at x_0 and n is the smallest positive integer such that $f^{(n)}(x_0) \neq 0$. If n is odd, x_0 is _____.

correct option

None of these

a local maximum of f .

R

not a local extreme point of f .

a local minimum of f .

Click to Show Answer & Mark



Question # 3 of 10 (Start time: 09:58:46 PM, 17 August 2021)

If $\sum_{n=1}^{\infty} b_n$ is rearrangement of an absolutely convergent series $\sum_{n=1}^{\infty} a_n$, then $\sum_{n=1}^{\infty} b_n$ also --- -- -- absolutely, and to the same sum.

Select the correct option

☐	<div>converges</div> <div>R</div>
☐	<div>diverges</div>





quiz.vu.edu.pk/QuizQue

2



Quiz Start Time: 09:55

10:00:47 PM, 17 August 2021)

In the Riemann integral $\int_a^b f(x) dx$, if it exist, is -----.

different

unique

R

Click to Save Answer & Move to





MTH621:Quiz-3

Question # 7 of 10 (Start time: 10:02:56 PM, 17 August 2021)

The series $\sum a_n b_n$ converges if $a_{n+1} \leq a_n$ for $n \geq k$, $\lim_{n \rightarrow \infty} a_n = 0$, and $|b_k + b_{k+1} + \dots + b_n| \leq M$, for some constant M .

Select the correct option

☐	$\leq$
☐	None of these
☐	$<$
☐	$\geq$





10:04:52 PM, 17 August 2021)

If f is continuous at x_0 , then f is differentiable at x_0 .

R

false

true

Click to Save





Quiz 1, August 2021

The function $g(x) = x^2$ is ----- on $[0, \infty)$.

R

increasing

decreasing

Click to Save Answer





Start time: 10:17:27 PM, 17 August 2021)

Suppose that f has n derivative at x_o and n is the the smallest positive integer such that $f^n(x_o) \neq 0$. If n is even, x_o is ----- if $f^{(n)}(x_o) > 0$.

option

None of these

R

a local minimum of f .

not a local extreme point of f .

a local maximum of f .

Click to Save Answer & Move





e: 10:15:52 PM, 17 August 2021)

Investigate the value of $\lim_{x \rightarrow \infty} x^{\frac{1}{x}} = \text{--- --}$.

None of these

0

1

-1

Click to S





10:48 PM, 17 August 2021)

Investigate the value of $\lim_{x \rightarrow 0^+} x \log x = \text{---}$.

1

0

R

None of these

-1





IC190405608: ANAM NAWAZ

ITH621:Quiz-3

Question # 7 of 10 (Start time: 10:21:59 PM, 17 August 2021)

The radius of convergence of the given power series $\sum \frac{x^n}{n!}$ is - - - - -.

Select the correct option



None of these

 ∞

R



1



0





Question # 10 of 10 (Start time: 10:25:10 PM, 17 August 2021)

The series $\sum (-1)^n a_n$ ----- if $0 \leq a_{n+1} \leq a_n$ and $\lim_{n \rightarrow \infty} a_n = 0$

Select the correct option

- | | |
|-----------------------|------------------|
| ☐ | <i>converges</i> |
| ☐ | <i>diverges</i> |

R





MTH621:Quiz-3

Question # 3 of 10 (Start time: 10:38:02 PM, 17 August 2021)

$\lim_{x \rightarrow 0^+} x \log x$, has the following indeterminate form

Select the correct option

- | | |
|-----------------------|--------------------------|
| ☐ | $(0)(\infty)$. |
| ☐ | $\infty \times \infty$. |
| ☐ | 0^∞ . |
| ☐ | $\frac{0}{0}$. |



NAME: SAMEER AHSAN KHAN

3

Quiz

f 10 (Start time: 10:39:39 PM, 17 August 2021)

The function $g(x) = x^2$ is increasing on -----.

Correct option

none of these

$[0, \infty)$

$(-\infty, 0)$

$(-\infty, -1)$

[Click to Save Answer](#)