

ثمنہ ٹکلیف : ۱۸

الف) $\lim_{n \rightarrow r^+} \frac{r_{n+1}}{n+1} = \frac{q}{c}, r$

(1)

ب) $\lim_{n \rightarrow r^-} \frac{r_{n+1}}{n+1} = \frac{q}{c}, r$

ج) $\lim_{n \rightarrow r} \frac{r_{n+1}}{n+1} = \frac{q}{c}, c$

د) $\lim_{n \rightarrow 0} \frac{r_{n+1}}{[n^2]} = \frac{v}{0}, \text{تو فیق نرسد}$

الف) $\lim_{n \rightarrow c^-} \{[n] - 2, [x \cdot 2 - 2, 4$

(2)

ب) $\lim_{n \rightarrow c^-} \{[n - 2], [1.], 4$

ج) $\lim_{n \rightarrow c^-} \{[n - 2], [1.], 1.$

د) $\lim_{n \rightarrow c^+} \{[n - 2], [1.], 1.$

الف) $\lim_{n \rightarrow c^-} \frac{c[n] + 1}{r} = \frac{c \times r + 1}{r}, \frac{v}{r}$

(3)

ب) $\lim_{n \rightarrow c^-} \left\{ \frac{c^{n+1}}{r} \right\} = [0], c$

ج) $\lim_{n \rightarrow c^-} \left\{ \frac{c^{n+1}}{r} \right\} = [0], d$

د) $\lim_{n \rightarrow c^+} \left\{ \frac{c^{n+1}}{r} \right\} = [0], d$

الف) $\lim_{n \rightarrow 1} \frac{n-0}{(n-0)(n+1)} = \begin{cases} \lim_{n \rightarrow 1^+} \frac{1}{n+1} = \frac{1}{2}, +\infty \\ \lim_{n \rightarrow 1^-} \frac{1}{n+1} = \frac{1}{2}, -\infty \end{cases}$

(4)

ب) $\lim_{n \rightarrow c} \frac{n-5}{(n-c)^2} = \begin{cases} \lim_{n \rightarrow c^+} \frac{n-5}{0^+} = \frac{-1}{0^+}, -\infty \\ \lim_{n \rightarrow c^-} \frac{n-5}{0^+} = \frac{-1}{0^+}, -\infty \end{cases}$

→ منکر

الف) $\lim_{n \rightarrow c} [-c] - [0] = \begin{cases} \lim_{n \rightarrow c^+} [-c] - [0] = 1 - (-10), 11 \\ \lim_{n \rightarrow c^-} [-c] - [0] = 9 - (-14), 23 \end{cases}$

(5)

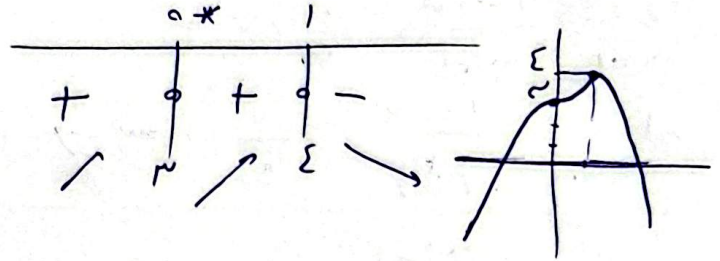
→ منکر

$$\rightarrow) \lim_{n \rightarrow (-\frac{1}{2})^-} \left[\frac{-1}{n^2} \right] \Rightarrow n(-\frac{1}{2}) \Rightarrow \frac{1}{n} \rightarrow -2 \Rightarrow \frac{1}{n^2} \rightarrow \left[\frac{-1}{n^2} > -4 \right] \Rightarrow$$

$$\left[\frac{-1}{n^2} \right] < -4$$

الف) $\lim_{n \rightarrow 1} [\epsilon n^2 - \epsilon n^2 + c]$ مشتق $y = 12n^2 - 12n^2 \cdot 0, -12n^2(n-1)$ (4)

$$\begin{cases} \lim_{n \rightarrow 1^+} [\epsilon n^2 - \epsilon n^2 + c], [\epsilon], c \\ \lim_{n \rightarrow 1^-} [\epsilon n^2 - \epsilon n^2 + c], [\epsilon], c \end{cases}$$



ب) $\lim_{n \rightarrow 0} [\epsilon n^2 - \epsilon n^2 + c]$

از جدول تعیین علامت و شکل بالا استفاده می‌کنیم

$$\begin{cases} \lim_{n \rightarrow 0^+} [\epsilon n^2 - \epsilon n^2 + c], [c^+], c \\ \lim_{n \rightarrow 0^-} [\epsilon n^2 - \epsilon n^2 + c], [c^-], c \end{cases} \rightarrow \text{محدود}$$

ان) $\lim_{n \rightarrow 2} \frac{n^2 - 1}{n^2 - 1}$ $\begin{cases} \lim_{n \rightarrow 2^+} \frac{n^2 - 1}{n^2 - 1}, \frac{n^2 + 2n + 1}{n + 1}, \frac{\epsilon + \epsilon + 1}{\epsilon}, \frac{1}{\epsilon}, c \\ \lim_{n \rightarrow 2^-} \frac{n^2 - 1}{n^2 - 1}, \frac{-(n^2 + 2n + 1)}{n + 1}, \frac{-1}{\epsilon}, -c \end{cases}$ (5) $\rightarrow$ محدود

ب) $\lim_{n \rightarrow \pi} \begin{cases} \lim_{n \rightarrow \pi^+} \frac{-\sin n}{\sin n}, \frac{-1}{2\cos n}, \frac{-1}{2x-1}, \frac{1}{2} \\ \lim_{n \rightarrow \pi^-} \frac{\sin n}{\sin n}, \frac{1}{2\cos n}, \frac{1}{2x-1}, -\frac{1}{2} \end{cases} \rightarrow$ محدود

ان) $\lim_{n \rightarrow \frac{c\pi}{r}} \sqrt{cn}$ $\begin{cases} \lim_{n \rightarrow \frac{c\pi}{r}^+} \sqrt{cn}, \sqrt{0^+}, 0 \\ \lim_{n \rightarrow \frac{c\pi}{r}^-} \sqrt{cn}, \sqrt{0^-}, \text{تعریف نشده} \end{cases} \rightarrow$ محدود (1)

ب) $\lim_{n \rightarrow 0} \sqrt{n - 2\sqrt{n}}$ $\begin{cases} \lim_{n \rightarrow 0^+} \sqrt{n - 2\sqrt{n}}, \text{تعریف نشده} \\ \lim_{n \rightarrow 0^-} \sqrt{n - 2\sqrt{n}}, \text{تعریف نشده} \end{cases} \rightarrow$ محدود

