

سؤال ١ -

I : $2-m > 0 \Rightarrow m < 2$ (الف)

II : $4 - \sqrt{2-m} > 0 \Rightarrow 4 > \sqrt{2-m} \Rightarrow 16 > 2-m \Rightarrow m > -14$

$D_f = [-14, 2]$ ✓

ب) I : $m-2 > 0 \Rightarrow m > 2$

II : $4 - \sqrt{m-2} > 0 \Rightarrow 4 > \sqrt{m-2} \Rightarrow 16 > m-2 \Rightarrow m < 18$

$D_f = [2, 18]$ ✓

سؤال ٢ - (الف) $4 - 2m^2 > 0 \Rightarrow 2m^2 < 4 \Rightarrow m^2 < 2 \Rightarrow -\sqrt{2} < m < \sqrt{2}$

$D_f = [-\sqrt{2}, \sqrt{2}]$ ✓

ب) $3|m| - 9 > 0 \Rightarrow 3|m| > 9 \Rightarrow |m| > 3 \Rightarrow \begin{cases} m > 3 \\ m < -3 \end{cases} \Rightarrow D_f = (-\infty, -3) \cup (3, +\infty)$

سؤال ٣ - (الف) $|m| - 3 \neq 0 \Rightarrow |m| \neq 3 \Rightarrow m \neq \pm 3 \Rightarrow D_f = \mathbb{R} - \{\pm 3\}$

ب) $\begin{cases} \text{II: } \sqrt{m} - 3 \neq 0 \Rightarrow \sqrt{m} \neq 3 \Rightarrow m \neq 9 \\ \text{I: } m > 0 \end{cases} \Rightarrow D_f = [0, +\infty) - \{9\}$

سؤال ٤ - (الف) I : $3|m| > 0 \Rightarrow |m| > 0 \Rightarrow -3 < m < 3$

II : $|m| + 2 \neq 0 \Rightarrow |m| \neq -2$ (مطلوب مقرر) } $D_f = [-3, 3]$

I : $4 - m^2 > 0 \Rightarrow m^2 < 4 \Rightarrow -2 < m < 2$

ب) $\begin{cases} \text{II: } |m| \neq 0 \Rightarrow |m| \neq 1 \Rightarrow m \neq \pm 1 \end{cases} \Rightarrow D_f = [-2, 2] - \{\pm 1\}$

سؤال ۶ -

الف) $|n| > 0 \Rightarrow |n| > -n \Rightarrow D_f = \mathbb{R}^+$

ب) $|n| > 0 \Rightarrow D_f = \mathbb{R}^+$

جوابی

سؤال ۶ -

الف) $|n| > 0 \Rightarrow [n] < 2 \Rightarrow n < 3 \Rightarrow D_f = (-\infty, 3)$

ب) $|n| > 0 \Rightarrow [n] < 2 \Rightarrow n < 2 \Rightarrow D_f = (-\infty, 2)$

سؤال ۷ -

الف) $|n| \neq 0 \Rightarrow D_f = \mathbb{R} - \{0\}$

ب) $|n| > 0 \Rightarrow D_f = \emptyset$

جوابی

سؤال ۸ -

الف) $|n - \frac{1}{p}| + |n + \frac{p}{p}| > 0 \Rightarrow |n - \frac{1}{p}| + |n + \frac{p}{p}| > 1 \Rightarrow 2|n + \frac{p}{p}| > 1 \Rightarrow |n + \frac{p}{p}| > \frac{1}{2} \Rightarrow n > \frac{1}{p}$

ب) $|n - \frac{1}{p}| + |n + \frac{p}{p}| > 1 \Rightarrow 2|n + \frac{p}{p}| > 1 \Rightarrow |n + \frac{p}{p}| > \frac{1}{2} \Rightarrow n > \frac{1}{p}$

$D_f = [\frac{1}{p}, +\infty)$

if $\begin{cases} a \in \mathbb{Z} & [a] + [-a] = 0 \\ a \notin \mathbb{Z} & [a] + [-a] = -1 \end{cases} \Rightarrow n - \frac{1}{p} \in \mathbb{Z}$

ب) $|n - \frac{1}{p}| + |n + \frac{p}{p}| > 1 \Rightarrow [a] + [-a] \Rightarrow n - \frac{1}{p} \in \mathbb{Z} \Rightarrow D_f = \{n | n = k + \frac{1}{p}, k \in \mathbb{Z}\}$

جوابی

سؤال ۹ -

$\sin^2 \alpha - 1 \neq 0 \Rightarrow \sin^2 \alpha \neq 1 \Rightarrow \sin \alpha \neq \pm \frac{1}{\sqrt{p}} \Rightarrow \sin \alpha \neq \pm \frac{1}{\sqrt{p}}$

$\sin \alpha \neq \pm \frac{1}{\sqrt{p}} \Rightarrow \sin \alpha \neq \pm \frac{\sqrt{p}}{p}$

$D_f = \{k\pi \pm \frac{\pi}{p}\} = \{k\pi + \frac{\pi}{p}, k\pi - \frac{\pi}{p}\}$

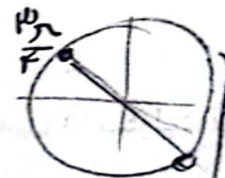


ب) $\tan \alpha + 1 \neq 0 \Rightarrow \tan \alpha \neq -1 \Rightarrow$

II: $\cos \alpha \neq 0$



III: $\sin \alpha \neq 0$



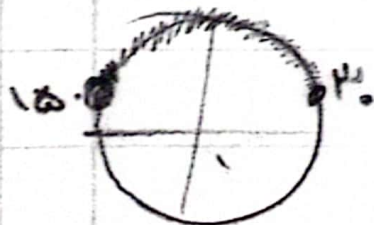
-1

المنطق

$$\Rightarrow D_f = R - \left[k\pi - \frac{\pi}{4} \leq k\pi \leq k\pi + \frac{\pi}{4} \right]$$

ا) $| \sin \alpha - 1 | > 0 \Rightarrow | \sin \alpha | > 1 \Rightarrow \sin \alpha > \frac{1}{F}$

(ب) سؤال



$$D_f = \left[k\pi + \frac{\pi}{6} \leq k\pi + \pi - \frac{\pi}{6} \right]$$

ب) $1 - \cos \alpha > 0 \Rightarrow \cos \alpha < 1 \Rightarrow \cos \alpha < \frac{1}{F}$

$$\Rightarrow D_f = \left[k\pi + \frac{\pi}{3} \leq k\pi + \frac{2\pi}{3} \right]$$

