

۲. آزمون خوب نوشته می شود

۱. با توجه به بازه تابع می است $\Leftarrow a=2 \Leftarrow a-2=0$

$f(x) = \sqrt{2x+b}$

$\sqrt{4+b}=0 \Rightarrow 4+b=0 \Rightarrow b=-4$

۳. $x=1$ $f(x)$ با ۰ صفر شود $\Leftarrow$

۲. $x^2 + 2x + 2 - m^2 \geq 0$

$(x+1)^2 + 1 - m^2 \geq 0$

$\Rightarrow 1 - (1) - 2 = -2$

$\Rightarrow m^2 \leq 1 \Rightarrow -1 \leq m \leq 1$

min max

۳. $4 - x^2 \geq 0$

$x^2 \leq 4$

$-2 \leq x \leq 2$

①

$[x] + [-x] + 1 \neq 0$

$[x] - [-x] \neq -1 \rightarrow$ طبق قیودار $\rightarrow Z$

② و ③ $D_f = \{-2, -1, 0, 1, 2\}$

$\Rightarrow$ مجموعه

۴. الف) $x^3 + 3x^2 \geq 0$

$x^2(x+3) \geq 0$

$\Rightarrow D_f = [-3, +\infty)$

ب) $(x+1)(x-1)x^2(x-3) \geq 0$

$\Delta < 0 \Rightarrow$ همیشه مثبت

$\Rightarrow D_f = (-\infty, -1] \cup [3, +\infty) \cup \{0\}$

۵. الف) $|x-2| - 3 \geq 0$

$|x-2| \geq 3$

$x-2 \geq 3 \Rightarrow x \geq 5$

$-2 \geq x-2 \Rightarrow -1 \geq x$

$\Rightarrow (-\infty, -1] \cup [5, +\infty)$

ب) $4 - |2-x| \geq 0$

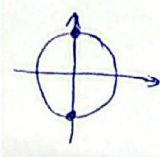
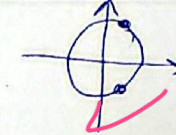
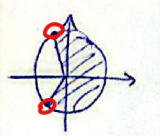
$|2-x| \leq 4$

$-4 \leq 2-x \leq 4$

$-6 \leq -x \leq 2$

$6 \geq x \geq -2$

$\Rightarrow D_f = [-2, 6]$

الف) $1 - n n \geq 0$ $n n \leq 1$ $n=0 \rightarrow \checkmark$ $n=1 \rightarrow \checkmark \Rightarrow D_f = (-\infty, 1]$ $n=(0,1] \rightarrow \checkmark$	ب) $3 - n-1 \geq 0 \Rightarrow \sqrt{3 - n-1 } - 1 \neq 0$ $n-1 \leq 3 \Rightarrow \sqrt{3 - n-1 } \neq 1$ $-3 \leq n-1 \leq 3 \Rightarrow 3 - n-1 \neq 1$ $-2 \leq n \leq 4$ $n-1 \neq 2$ $n-1 \neq 2 \Rightarrow n \neq 3$ $n-1 \neq -2 \Rightarrow n \neq -1$ $\Rightarrow D_f = [-2, 4] - \{3, -1\}$	6
الف) $\cos n \neq 0$  $\Rightarrow D_f = \mathbb{R} - \{k\pi + \frac{\pi}{2}\}$	ب) $\cos n - 1 \neq 0$ $\cos n \neq 1$ $\cos n \neq \frac{1}{2}$  $\Rightarrow D_f = \mathbb{R} - \{2k\pi \pm \frac{\pi}{3}\}$	7
الف) $2n+1 - n+3 \neq 0$ $2n+1 \neq n+3$ $4n^2 + 4n + 1 \neq n^2 + 6n + 9$ $3n^2 - 2n - 8 \neq 0$ $\Rightarrow D_f = \mathbb{R} - \{-\frac{8}{3}, 2\}$ $n \neq 2, -\frac{8}{3}$	ب) $2n+1 - n+3 \geq 0$ $2n+1 \geq n+3$ $4n^2 + 4n + 1 \geq n^2 + 6n + 9$ $3n^2 - 2n - 8 \geq 0$ $\Rightarrow D_f = (-\infty, -\frac{8}{3}] \cup [2, \infty)$	8
$2n-1 > 0$ $n > \frac{1}{2}$ $\log_{\omega}(2n-1) > 0$ $2n-1 > 1$ $n > 1$	$\log_{\omega} \log_{\omega}(2n-1) \geq 0$ $\log_{\omega}(2n-1) \leq 1$ $2n-1 \leq \omega$ $n \leq 3$ $\Rightarrow D_f = (1, 3]$	9
الف) $\cos n + 1 > 0$ $\cos n > -1$ $\cos n > -\frac{1}{2}$  $\Rightarrow D_f = (2k\pi - \frac{\pi}{3}, 2k\pi + \frac{\pi}{3})$ اذن:	ب) $\frac{n-1}{n+1} > 0 \Rightarrow \frac{1}{+ \infty - b +}$ $\log \frac{n-1}{n+1} \geq 0 \Rightarrow \frac{n-1}{n+1} \geq 1 \Rightarrow \frac{n-1-n-1}{n+1} \geq 0$ $\Rightarrow \frac{-2}{n+1} \geq 0 \Rightarrow \frac{1}{+ \infty -}$ $\Rightarrow (-\infty, -1)$	10

الف - ٥ $2C \cdot \sin u + 1 > 0 \rightarrow C \cdot \sin u > -\frac{1}{2}$

