

**JEE MAIN TRIGONOMETRIC FUNCTIONS — TRIGONOMETRIC
FUNCTIONS OF ANY ANGLE, SIGNS, DOMAIN AND RANGE — PYQS**

Max. Marks: 4

Questions: 1

Section A (MCQ) — 1 question

Q.1 The sum of all the elements in the range of $f(x) = \text{Sgn}(\sin x) + \text{Sgn}(\cos x) + \text{Sgn}(\tan x) + \text{Sgn}(\cot x)$,

$$x \neq \frac{n\pi}{2}, n \in \mathbb{Z}, \text{ where}$$

$$\text{Sgn}(t) = \begin{cases} 1, & \text{if } t > 0 \\ -1, & \text{if } t < 0 \end{cases}$$

is : [JEE Main 2026 (Online) 28th January Evening Shift]

- (1) 4 (2) 0 (3) 2 (4) -2

Scan or tap for the full solution



ANSWER KEY

Ques.	1								
Ans.	3								