

# Trigonometry Questions Overview

Trigonometry Questions have a good weightage in the Banking Exam and the type of question asked in Banking exam is similar to the question mentioned below. It has been solved and explained by Gargi.ai Experts and they have tried to elaborate the concept used in Trigonometry Questions.

## Question

Evaluate:  $[(\sin 70^\circ/\cos 20^\circ) + (\operatorname{cosec} 20^\circ/\sec 70^\circ) - (2\cos 70^\circ \times \operatorname{cosec} 20^\circ)]$

Difficulty : Moderate

Average Time : 28 Seconds

Options :

1. -1
2. 1
3. 0
4. 2



## Solution

The correct answer is **option 3** i.e. **0**

Understanding/Application

$$[(\sin 70^\circ/\cos 20^\circ) + (\operatorname{cosec} 20^\circ/\sec 70^\circ) - (2\cos 70^\circ \times \operatorname{cosec} 20^\circ)]$$

By complementary angle

$$= [(\sin 90^\circ - 20^\circ)/\cos 20^\circ] + \{(\operatorname{cosec} 90^\circ - 70^\circ)/\sec 70^\circ\} - \{2(\cos 90^\circ - 20^\circ) \times \operatorname{cosec} 20^\circ\}]$$

$$= [(\cos 20^\circ/\cos 20^\circ) + (\sec 70^\circ/\sec 70^\circ) - (2\sin 20^\circ \times (1/\sin 20^\circ))]$$

$$= [1 + 1 - 2(1)]$$

$$= [2 - 2]$$

$$= 0$$

