TOPIC
Mathematics – Section I – Question 17

QUESTION
Given

$$[A]=\begin{bmatrix} 2 & 3 & 5 \\ -6 & 7 & 9 \end{bmatrix}$$

and

$$[B]=\begin{bmatrix} 3 & 2 \\ 5 & 3 \\ 9 & 4 \end{bmatrix}$$

Then if

$$[C]=[A][B],$$

c_{21} most nearly is

(A) 31
(B) 33
(C) 67
(D) 144

HINT
Dot product of second row of A and first column of B.

SOLUTION

$$c_{21}=\begin{bmatrix} 6 & 7 & 9 \end{bmatrix}\begin{bmatrix} 3 \\ 5 \\ 9 \end{bmatrix}$$

$$=6\times 3+7\times 5+9\times 9$$

$$=144$$

ANSWER
(D)

CONTRIBUTOR
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