

Hard

Assistant Engineer (Electrical), Class 2025

Building Department

A signal $e^{(at)} \sin(bt)$ is the input to a real linear time invariant system. Given K and v are constants, the output of the system will be of the form $Ke^{(bt)}$

A

b need not be equal to a but v must be equal to

B

v need not be equal to a but b must be equal to a

C

b must be equal to a and v must be equal to

Correct

D

b need not be equal to a and v need not be equal to

Correct Answer: C**Full Detailed Explanation**

Open the live question URL below to read the full explanation, related links and practice flow.

Open live question on website:

<https://sarkariresultout.com/pyq/gu/question/gpsc-ae-electrical-q182-complex-exponential-eigenfunction-of-lti-system/>