

Moderate

Assistant Engineer (Electrical), Class 2025

Building Department

Assertion (A): Routh criterion is in terms of array formulation which is more convenient to handle. **Reason (R):** This method is used to investigate the method of

A

Both (A) and (R) are true and (R) is the correct explanation of

B

Both (A) and (R) are true and (R) is not the correct explanation

Correct

C

(A) is true but (R) is false

D

(A) is false but (R) is true

Correct Answer: B

Full Detailed Explanation

Concept & Reasoning Routh-Hurwitz stability analysis uses polynomial coefficients to build the Routh table. Changes of sign in the first column equal the number of roots in the right-half s-plane. It scales well to higher-order characteristic equations compared with direct root calculation, while also handling special zero-row/zero-first-element cases with standard procedures. How to Solve It in the Exam Routh table stability without solving all roots. Important Exam Point In assertion-reason questions, distinguish 'both true' from 'R explains A'. Related Revision Path This question sits in the revision path Control Systems Stability Routh-Hurwitz Criterion .

Open live question on website:

<https://sarkariresultout.com/pyq/question/gpsc-ae-electrical-q207-routh-array/>