

Hard

Assistant Engineer (Electrical), Class 2025

Building Department

Which of the following reactances is eliminated first in synchronous generator just after the symmetrical fault?

A

Leakage reactance

B

Damper winding reactance

Correct

C

Armature winding reactance

D

Field winding reactance

Correct Answer: B

Full Detailed Explanation

Concept & Reasoning A synchronous generator fault current passes through subtransient, transient and steady-state stages. Damper circuits dominate the very early subtransient interval; field-winding transients persist longer. As damper current decays, the effective reactance rises from X_d'' to X_d' and finally X_d . How to Solve It in the Exam First few cycles damper winding subtransient reactance. Important Exam Point Link time sequence: damper dies first, field transient next. Related Revision Path This question sits in the revision path Power System Fault Analysis Synchronous Generator Reactances .

Open live question on website:

<https://sarkariresultout.com/pyq/question/gpsc-ae-electrical-q191-subtransient-reactance-components/>