

Easy

Assistant Engineer (Electrical), Class 2025

Building Department

The primary purpose of equipment earthing as per IS 3043 is to _____.

A

Improve the power factor

B

Provide a safe path for leakage/fault current to flow

Correct

C

Stabilize the system frequency

D

Reduce the electricity bill

Correct Answer: B

Full Detailed Explanation

Concept & Reasoning: If insulation fails and a live conductor contacts a metal enclosure, an unearthed enclosure can remain at dangerous voltage. A proper protective earth creates a fault loop with sufficient current to operate a fuse/MCB/RCD as applicable, while bonding keeps accessible conductive parts close to earth potential. How to Solve It in the Exam: Earthing is about safety and fault-current return path. Important Exam Point: Protective earthing does not intentionally carry normal load current. Related Revision Path: This question sits in the revision path Electrical Laws, Standards and Energy Policy → Earthing and Safety → Protective Earthing.

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