

Easy

Assistant Engineer (Electrical), Class 2025

Building Department

A 2000/1000/500 three winding transformer is to be used as auto transformer with supply of 3000V. Two loads of 1050 kVA at 3500 V and other one at 180 kVA at 1000 V. The

A**1230 kVA****Correct****B**

1440 kVA

C

1680 kVA

D

1150 kVA

Correct Answer: A

Full Detailed Explanation

Concept & Reasoning The question supplies two simultaneous load ratings connected to different voltage points of a three-winding transformer used in an autotransformer arrangement.

When asked for total kVA supplied, apparent powers of the loads are added (assuming the ratings represent simultaneous delivered apparent power). The internal conductive/transformative kVA split is relevant to winding rating and copper economy, but it does not change the total external load kVA delivered. **How to Solve It in the Exam** External total kVA = sum of simultaneous load kVA values. **Important Exam Point** Do not confuse autotransformer transformed kVA with total load kVA. **Related Revision Path** This question sits in the revision path Electrical Machines

Transformers Autotransformer Applications .

Open live question on website:

<https://sarkariresultout.com/pyq/question/gpsc-ae-electrical-q137-three-winding-autotransformer-loading/>