

Easy

Assistant Engineer (Electrical), Class 2025

Building Department

What is the number of primary turns in a 200/1000V transformer if the emf per turn is 10V?

A

5

B

10

C

20

Correct

D

40

Correct Answer: C

Full Detailed Explanation

Concept & Reasoning Transformer induced emf is proportional to the number of turns. If emf per turn is already supplied, the turn count follows directly by dividing the winding voltage by emf per turn. The wording asks for the primary turns in a 200/1000 V transformer; taking the first rating as the primary winding gives $E_1 = 200$ V. Thus $N_1 = 20$. No turns-ratio calculation is required beyond identifying the correct winding voltage.

How to Solve It in the Exam When volts/turn is given, simply divide the winding voltage by volts/turn.

Important Exam Point Check which voltage belongs to the winding named in the question before calculating.

Related Revision Path This question sits in the revision path Electrical Machines Transformers EMF Equation .

Open live question on website:

<https://sarkariresultout.com/pyq/question/gpsc-ae-electrical-q103-turns-and-volts-per-turn/>