

Easy

Assistant Engineer (Electrical), Class 2025

Building Department

# A Variable Air Volume (VAV) system in HVAC is designed to

A

Vary the temperature of the air while keeping the flow constant

B

Vary the airflow to a zone based on its temperature needs

Correct

C

Vary the humidity of the air supply

D

Only operate at two speeds, high and low

## Correct Answer: B

### Full Detailed Explanation

Concept & Reasoning When zone cooling demand falls, the VAV terminal reduces airflow; when demand rises, it opens to supply more air. This reduces fan energy compared with constant-volume systems, especially when a variable-speed supply fan tracks duct static pressure. Some VAV terminals may include reheat for minimum-flow/temperature control. How to Solve It in the Exam VAV = Variable Air Volume → airflow changes. Important Exam Point Do not confuse VAV with constant-air-volume systems that vary temperature more directly. Related Revision Path This question sits in the revision path Building Electrical Services → HVAC → Air Distribution .

Open live question on website:

<https://sarkariresultout.com/pyq/question/gpsc-ae-electrical-q299-variable-air-volume-system/>