

Weekly quiz # 5, Topic 1

The air conditioner question is a tricky one. We received 11 solutions. Most engineers fell in this trap to start from an engineering point of view. The best identical answers are from Mr. Sunil Sood and Mr. K. Venkatesaperumal that there is absolutely no know-how about AC required or thermo-dynamics to answer the question.

If for instance reducing the ambient temperature from 42 °C to 22 °C requires 100% electricity for 20 °C cooling than 18 °C cooling would require $(18/20) \times 100 = 90\%$ or 10% less.

Quiz # 5, Topic 2

Mr. Sethuraman gets the prize because he directly related power input to Hz. His argument that productivity may increase although power costs also increase is correct. A few other contributions also mentioned the same. However he also related it to costs of production in relation to energy costs. This was a close call since a few others also responded correctly.