

Physics

Worksheet 4: 20/08/2020

Class - X

CHAPTER 12: MAGNETIC EFFECTS OF CURRENT

Instructions:

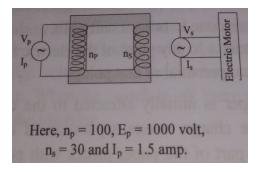
- ✓ Watch the uploaded video class from school's website/YouTube channel.
- ✓ For becoming more clear about the basics, watch more than once, if needed.
- ✓ Contact me in case of any difficulties in understanding.

(Questions given in this worksheet are important questions for all exams)

Creative Questions

(Solve Yourself)

1. 2HP electric motor is connected by secondary coil of a step down transformer. Below the level diagram of the transformer:



- a) Determine the resistance of the principal coil.
- b) Whether it is capable to run the electric motor by the transformer that mentioned in the stem? analyze mathematically.
- 2. The number of turns of primary and secondary coil in a transformer are 500 and 2000 respectively. The voltage of the secondary coil is 800V. The current passing through the primary coil is 4A.
 - a) Calculate the voltage in the primary coil and current in the secondary coil of the given stem.
 - b) Is it possible to operate an electric motor of 1KW connected with the secondary coil? Explain mathematically.