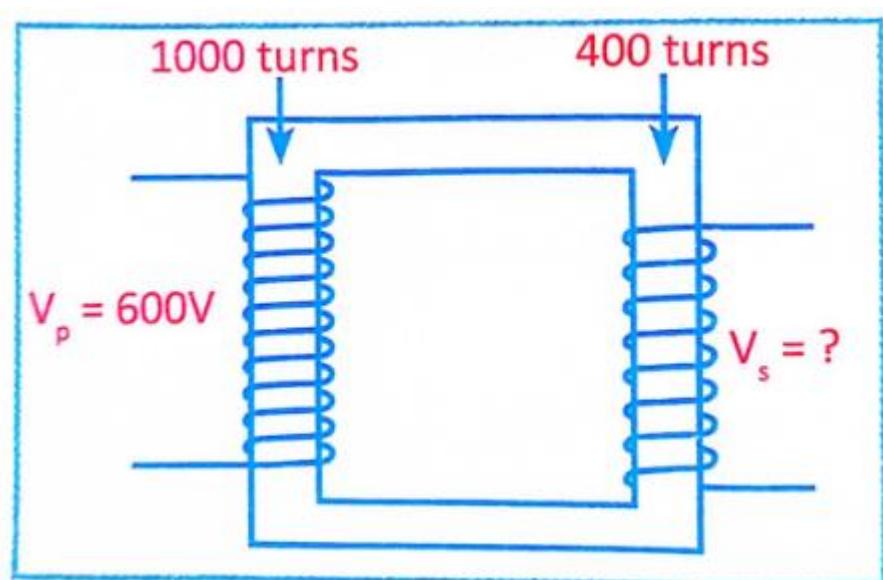


Electricity and Magnetism

1. Who founded the law of electromagnetic induction?
2. State the right hand's thumb rule.
3. State the right hand's grip rule.
4. Which instrument can convert kinetic energy into electrical energy?
5. Write down the type of transformer in which the turning of wire in the secondary coil is less than that in the primary coil.
6. Which type of transformer is used at power stations?
7. State Faraday's law of electromagnetic induction.
8. Clarify Maxwell's right-hand grip rule. For what purpose do we use this rule?
9. Write the working method of a transformer.
10. Describe thermal power plants in short. Also, analyze their merits and demerits.
11. Write a short note on the importance of electric motors in modern life.
12. Why are step-up transformers used in power stations?
13. Why is hydroelectricity green energy?

14. Why is the core of a transformer laminated with varnish?
15. A transformer has 220V primary voltage and 1000 turns of the primary coil. How many turns of the secondary coil will be needed to produce 110 volts from that transformer?
16. A transformer has 200 primary turns and 150 secondary turns. If the operating voltage for the load connected to the secondary is measured to be 300V, what is the voltage supplied to the primary coil?
17. Study the diagram and calculate the secondary voltage in it.



18. Study the diagram and answer the following questions.

- i. What type of transformer is shown in the diagram?
- ii. Label A, B, C, and D in the diagram.
- iii. For what purpose is the transformer used?
- iv. Mention any two applications of it.
- v. What is the cause of laminating A?