



DPP – 3 (Alternating Current)

Video Solution on Website:-

<https://physicsaholics.com/home/courseDetails/44>

Video Solution on YouTube:-

<https://youtu.be/ZE0CIAePdkU>

Written Solution on Website:-

<https://physicsaholics.com/note/notesDetailis/57>

- Q 1. An ideal step-up transformer's primary coil has 500 turns and its secondary coil has 15,000 turns. The primary EMF is 120 V. What is the EMF of the secondary?
(a) 5800 V (b) 3600 V
(c) 2600 V (d) 4600 V
- Q 2. A step-down transformer has 12500 turns on its primary and 125 turns on its secondary. The current in the secondary is 36 A. What current flows in the primary?
(a) 0.36 A (b) 0.6 A
(c) 0.9 A (d) 1.2 A
- Q 3. A transformer is employed to _____.
(a) Convert A.C. into D.C. (b) Convert D.C. into A.C.
(c) Obtain a suitable A.C. voltage (d) None of these
- Q 4. Eddy currents are produced when
(a) A metal is kept in varying magnetic field
(b) A metal is kept in the steady magnetic field
(c) A circular coil is placed in a magnetic field
(d) Through a circular coil, current is passed
- Q 5. The armature of dc motor has $20\ \Omega$ resistance. It draws current of 1.5 ampere when run by 220 volts dc supply. The value of back e.m.f. induced in it will be
(a) 150 V (b) 170 V
(c) 180 V (d) 190 V
- Q 6. If in a transformer the number of turns of primary coil and secondary coil are 500 and 400 respectively and 240 V is applied to primary coil, then the ratio of current in primary and secondary coil is
(a) 4 : 5 (b) 5 : 4
(c) 5 : 10 (d) 8 : 12
- Q 7. Which type of transformer is there in a power station ?
(a) Step-Up (b) Step-Down
(c) Any of above (d) None of these
- Q 8. An ideal transformer has 100 turns in the primary and 250 turns in the secondary. The peak value of the ac input is 28 V. The r.m.s. secondary voltage is nearest to:
(a) 70 V (b) 50 V

