



# Silent Bells



ഫസ്റ്റ് ബെൽ - അനുബന്ധ പഠനസഹായകസാമഗ്രി

Class: 10

Subject: Physics

Date: 3/9/20

WorksheetNo:

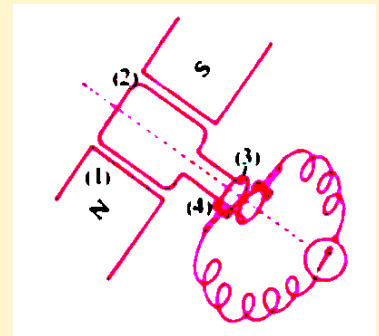
3.5



## Lesson & LO : ELECTROMAGNETIC INDUCTION -AC GENERATOR

1. The structural diagram of a generator is given.

- Name the parts numbered 1,2,3,4.
- What is the the function of the parts 3 and 4.
- Write down the energy change in this device?
- What is its working principle?



2. The frequency of AC generated for distribution in our country is 50Hz.

- What do you mean by the cycle of AC and frequency of AC?
- When 50Hz AC is used, how many times will the direction of the current changes in one second ?

3. To obtain 50Hz AC the armature coil has to rotate 50 times between the poles of the field magnet .It causes practical difficulties. What are the methods that can be used to reduce the number of rotations?

4. The stationary part of a generator is called as stator and the rotating part is called as rotor.



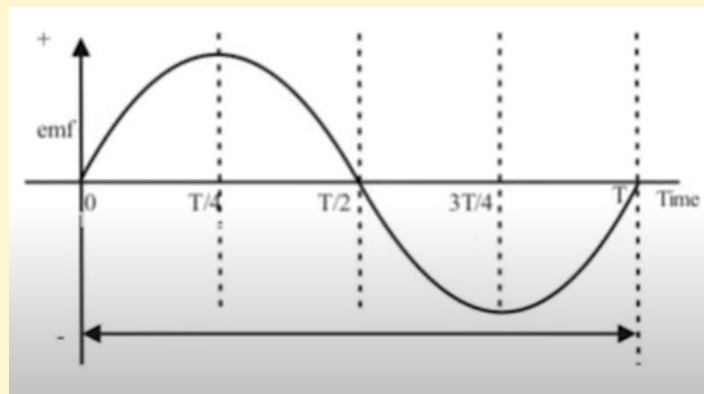
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Which part is used as stator in generator? Why this part is used as a stator?

5. a) Analyse the graph and find out the instances at which the emf is maximum and minimum.



b) Complete the table given below after analysing the graph above

	Time				
	0	T/4	T/2	3/4 T	T
Angle of rotation of the armature.	0°	90°	180°	270°	360°
Rate of change of flux.	0	maximum	0	.....	.....
Induced emf in volts V.	0	maximum	0	.....	.....

[CLASS LINK](#)

