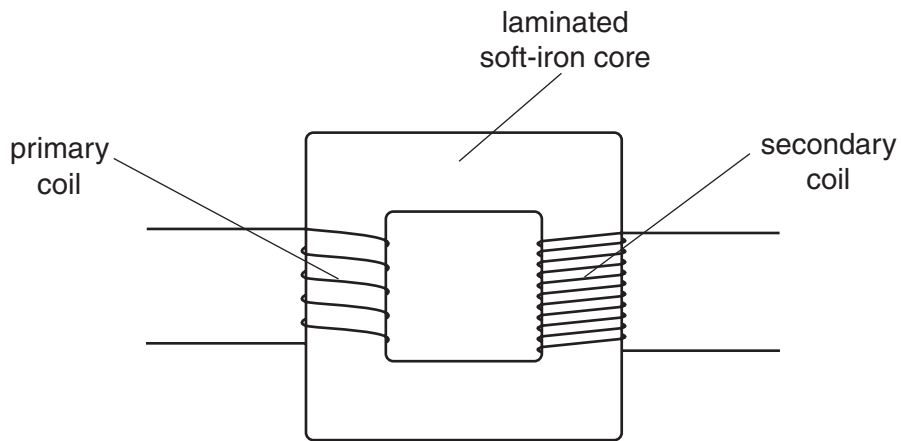


- 6 A simple iron-cored transformer is illustrated in Fig. 6.1.



**Fig. 6.1**

- (a)** Suggest why the core is

- (i)** a continuous loop,

.....  
 ..... [1]

- (ii)** laminated.

.....  
 .....  
 ..... [2]

- (b) (i)** State Faraday's law of electromagnetic induction.

.....  
 .....  
 ..... [2]

- (ii)** Use Faraday's law to explain the operation of the transformer.

.....  
 .....  
 .....  
 ..... [3]

- (c) State two advantages of the use of alternating voltages for the transmission and use of electrical energy.

*For  
Examiner's  
Use*

1. ....

.....

2. ....

.....

[2]