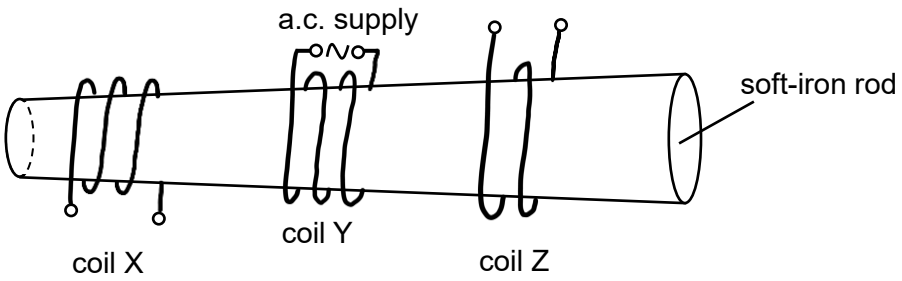
27 A soft-iron rod of variable cross-section has three coils tightly wound round it at the positions shown. Coil X and coil Y has 3 turns each while coil Z has 2 turns. Coil Y is connected to an alternating current supply.



Which statement is correct?

A The magnitude of the e.m.f. induced in coil X is equal to that induced in coil Z.

B The magnitude of the e.m.f. induced in coil X is larger than that induced in coil Z.

C The magnitude of the e.m.f. induced in coil X is smaller than that induced in coil Z.

D There is no e.m.f. induced in coil X and coil Z as they are not closed loops.