

Charged Particles

I.4

5

[November/December 2008]

- 4 (a) Describe what is meant by a *magnetic field*.

For
Examiner's
Use

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..... [3]

- (b) A small mass is placed in a field of force that is either electric or magnetic or gravitational.

State the nature of the field of force when the mass is

- (i) charged and the force is opposite to the direction of the field,

..... [1]

- (ii) uncharged and the force is in the direction of the field,

..... [1]

- (iii) charged and there is a force only when the mass is moving,

..... [1]

- (iv) charged and there is no force on the mass when it is stationary or moving in a particular direction.

..... [1]