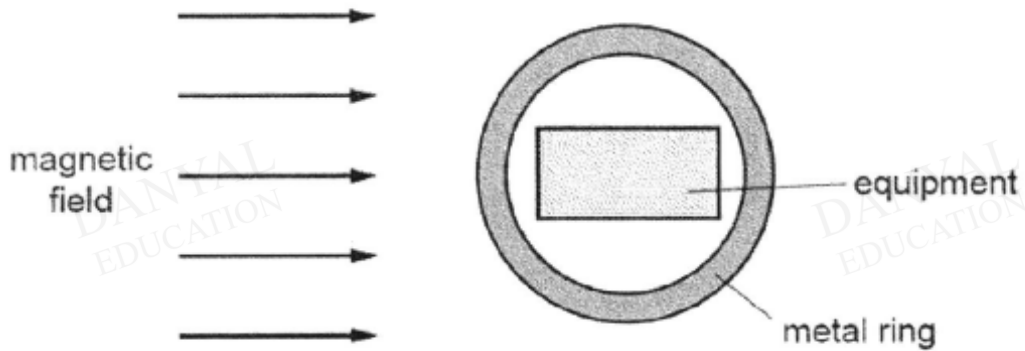


**O Level Pure Physics MCQs**

**Magnetism Test 1.0**

Q1

A metal ring screens a piece of equipment from a magnetic field.



Which metal should be used for the ring, and why?

	metal	explanation
<b>A</b>	copper	the metal carries the field lines around the equipment
<b>B</b>	copper	the metal is non-magnetic
<b>C</b>	iron	the metal carries the field lines around the equipment
<b>D</b>	iron	the metal is non-magnetic

Q2

Fig. 35.1 shows a small compass placed between two bar magnets with the ends X and Y nearest to the compass.

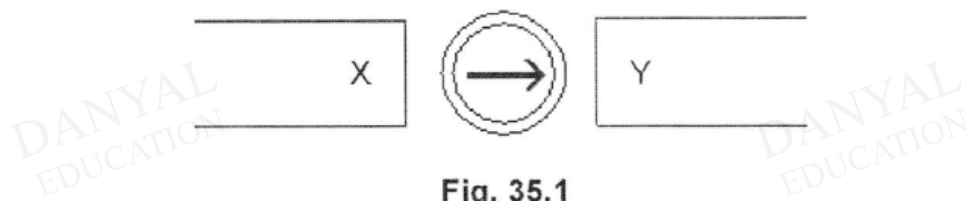


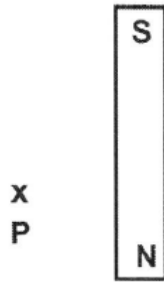
Fig. 35.1

What are the polarities of ends X and Y?

	X	Y
<b>A</b>	North pole	South Pole
<b>B</b>	South Pole	North pole
<b>C</b>	South Pole	South Pole
<b>D</b>	North pole	North pole

Q3

The diagram below shows a bar magnet.



Which of the following best represents the orientation of the compass at P if the magnetic field of the Earth is neglected?



A



B



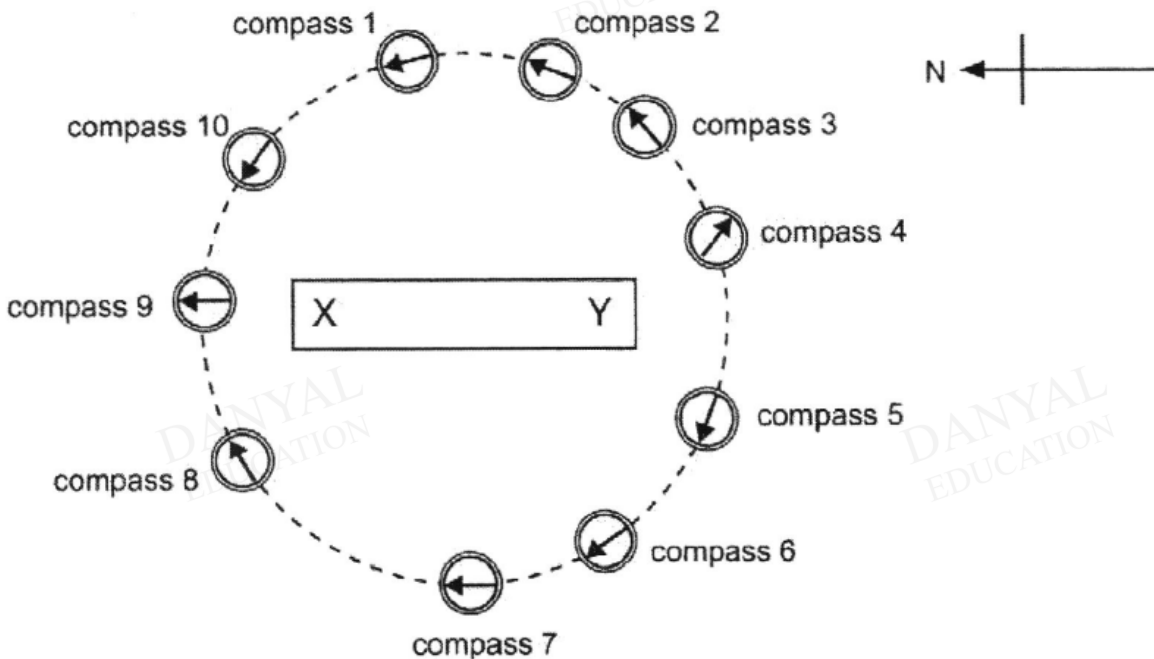
C



D

Q4

The figure shows the top view of a permanent magnet with ten compasses arranged on a dotted circle around it. The poles of the magnet are unknown and are labelled as X and Y.



Which one of the following statements is correct?

- A Compass 1 is faulty
- B Compass 9 is faulty
- C Compass 5 is faulty
- D Pole X is the north-pole and pole Y is the south-pole

Q5

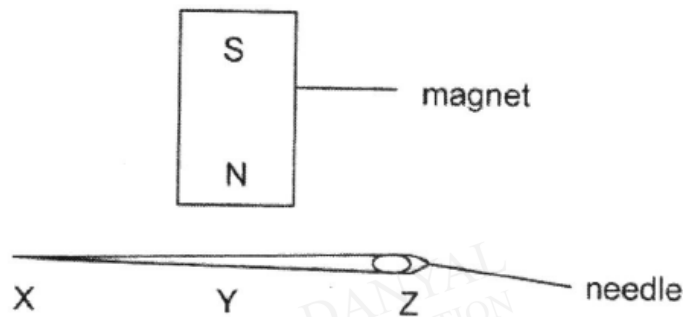
Which of the following is a possible test to check if an unknown substance A is magnetised?

- I Repulsion between substance A and another magnet
- II Attraction between substance A and a non-magnet
- III Attraction between substance A and another magnet.

- A I only      B III only      C I and II      D All of the above

Q6

The diagram shows a magnet being used to pick up a steel needle. The north pole of this magnet is to the centre Y of the needle.

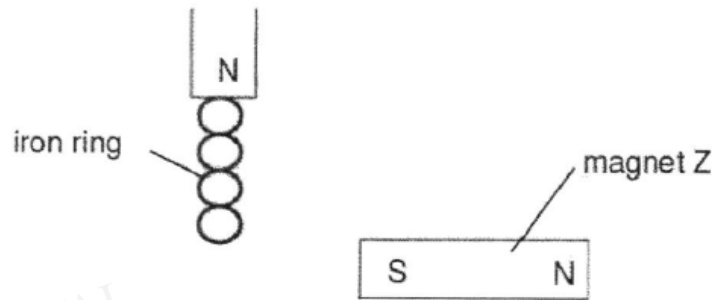


What are the poles induced in the needle at X, Y, and Z?

	pole induced at X	pole induced at Y	pole induced at Z
A	S	N	S
B	S	S	S
C	N	N	N
D	N	S	N

Q7

The diagram shows a strong magnet with four small iron rings attracted to it.



A weak magnet, Z, is brought near to the end of the lowest ring.

What will happen to the chain of iron rings?

- A It will bend away from Z.
- B It will bend towards Z.
- C It will fall to the ground.
- D It will remain still.

Q8

A student makes three statements on magnetism.

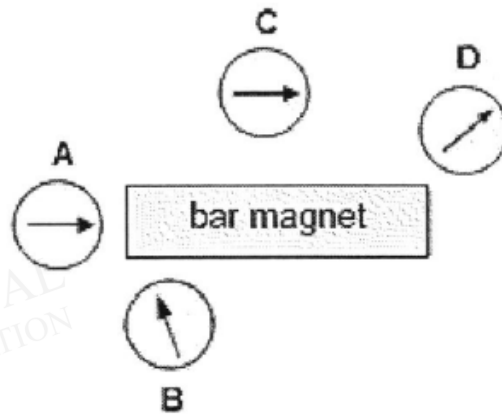
- (i) A freely suspended magnet always points in a North-South direction.
- (ii) A compass is a temporary magnet.
- (iii) Electrical method of magnetisation will always produce permanent magnets

Which statement(s) is/are correct?

- A (i) only
- B (i) and (iii) only
- C (ii) only
- D (i), (ii) and (iii)

Q9

Four magnetic compasses are placed near a bar magnet as shown in the figure below. Which compass is faulty?



Q10

A metal bar PQ hangs from a thin thread and always comes to rest with end P pointing north.

Another bar XY of the same metal settles in no definite direction.

What happens if the two bars are brought near one another?

- A End P and end Q both attract end X.
- B End P attracts end X but repels end Y.
- C End P neither attracts nor repels end X.
- D End P repels end X but attracts end Y.

**Answers**

**Magnetism Test 1.0**

Q1 C

Q2 A

Q3 C

Q4 B

Q5 C

Q6 D

Q7 B

Q8 A

Q9 C

Q10 A

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