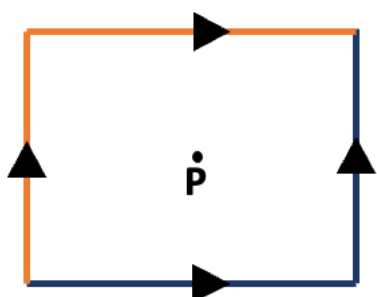


Magnetic Field Due to Current Carrying Conductor: 5 Intriguing Questions

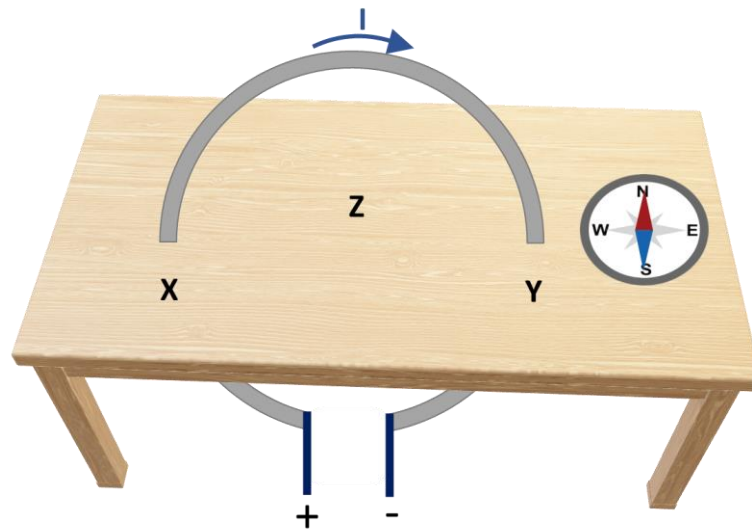
CBSE: Term 2
Grade 10th: Physics

Instructions:

1. This set contains 5 questions.
2. Go through the questions properly.
3. Attempt all the questions.
4. Each question contains four options.
5. Only one of the options is correct.

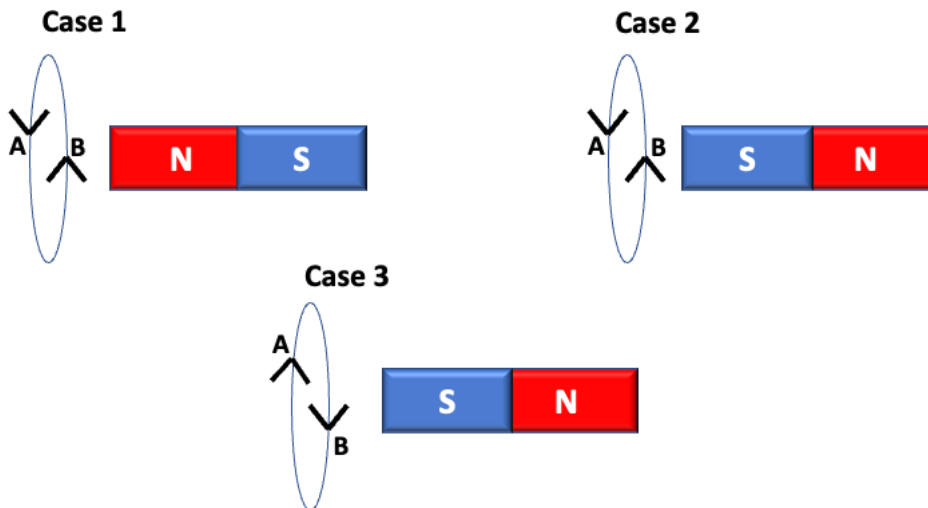
1.	<p>When two straight conductors carrying the same magnitude of current are bent into a square as shown in the figure, the magnetic field at centre P is:</p> <div style="text-align: center; margin: 20px 0;">  </div> <p>A. Into the screen B. Out of the screen C. Zero D. Across the screen</p>
----	--

2. Among the points X, Y, Z as shown in the figure, at what point will the north pole of the magnetic compass deflect towards the west?



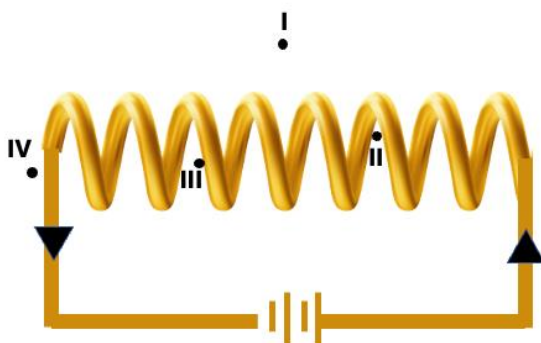
- A. X
- B. Y
- C. Z
- D. Both X and Y

3. In which of the following cases will there be a repulsion between a magnet and a circular coil carrying current given that the side A of the coil is towards us?



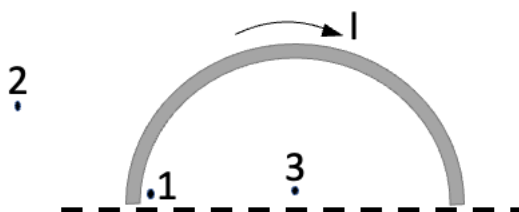
- A. Only Case 1 & Case 2
- B. Only Case 1 & Case 3
- C. Only Case 2 & Case 3
- D. Case 1, Case 2 & Case 3

4. Which of the following is the correct order of strength of the magnetic field due to the solenoid coil at points I, II, III, IV as shown in the figure?



- A. $IV < III < II < I$
- B. $I < IV < III = II$
- C. $I < IV < III < II$
- D. $I < III = II < IV$

5. A straight conductor carrying current I is bent into a form of semi-circular conductor as shown. The magnetic field strength due to this conductor is maximum at:



- A. Point 3
- B. Point 2
- C. Point 1
- D. Same at all the points